matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: September 6, 2016.

Judith A. Enck,

Regional Administrator, Region 2.

[FR Doc. 2016–22238 Filed 9–14–16; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2016–0078; 4500030113]

RIN 1018–BB64

Endangered and Threatened Wildlife and Plants; Threatened Species Status for Chorizanthe parryi var. fernandina (San Fernando Valley Spineflower)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list *Chorizanthe parryi* var. *fernandina* (San Fernando Valley spineflower), a plant species from southern California, as a threatened species under the Endangered Species Act of 1973, as amended (Act). If we finalize this rule as proposed, it would extend the Act's protections to this species. This document also serves as the 90-day and 12-month findings on two petitions to list *C. parryi* var. *fernandina* as an endangered species.

DATES: We will accept comments received or postmarked on or before November 14, 2016. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, 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 October 31, 2016.

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 FWS–R8–ES–2016–0078, which is the docket number for this rulemaking. Then click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on ''Comment Now!''

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R8–ES–2016–0078, U.S. Fish and Wildlife Service, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

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 *Public Comments,* below, for more information).

FOR FURTHER INFORMATION CONTACT: Stephen P. Henry, Field Supervisor, U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, CA 93001; telephone 805–644–1766; facsimile 805–644–3958. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Information Requested

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 governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) *Chorizanthe parryi* var. *fernandina's* biology, range, and population trends, including:

(a) Biological or ecological requirements of the plant

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the plant, its habitat, or both.

(2) Factors that may affect the continued existence of the plant, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this plant and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status, range, distribution, and population size of *Chorizanthe parryi* var. *fernandina,* including the locations of any additional populations of this plant.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include. Please note that submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act (16 U.S.C. 1531 *et seq.*) directs that determinations as to whether any species is an endangered or threatened species must be made ''solely on the basis of the best scientific and commercial data available.''

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described above in **ADDRESSES**. If you submit information via *http://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the Web site. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *http://www.regulations.gov.*

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, Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Public Hearing

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received by the date specified above in **DATES**. Such requests must be sent to the address shown above in **FOR FURTHER INFORMATION CONTACT**. 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.

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we are seeking the expert opinions of six appropriate and independent specialists regarding this proposed rule. A thorough review of information that we relied on in making this determination—including information on taxonomy, life history, ecology, population distribution and abundance, and potential threats—is presented in the San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina)* Species Report (Species Report) available at *http://regulations.gov* under Docket No. FWS–R8–ES–2016–0078. A summary of this analysis is found in this proposed rule. The purpose of peer review is to ensure that our listing determination is based on scientifically sound data, assumptions, and analyses. The peer reviewers have expertise in *C. parryi* var. *fernandina's* biology, habitat, physical or biological factors, or threats, and their review of the Species Report will inform our final determination. We invite comment from the peer reviewers during this public comment period.

Previous Federal Action

We designated *Chorizanthe parryi* var. *fernandina* as a candidate species for listing in the October 25, 1999, candidate notice of review (CNOR) (64 FR 57534) based on its discovery along the southern rim of Laskey Mesa and within the footprint of the proposed Ahmanson Ranch project site in southeastern Ventura County, California (Glenn Lukos and Associates (GLA) 2000, p. 1). Prior to its rediscovery in 1999, *C. parryi* var. *fernandina* was not seen for a period of 70 years (1929–1999); it was last collected in 1929, near Castaic in Los Angeles County (Reveal and Hardham 1989, p. 149) and was presumed extinct by the botanical community. We gave *C. parryi* var. *fernandina* a listing priority number (LPN) of 3, which denotes a subspecies or variety facing an imminent threat of high magnitude and low recovery potential.

On December 6, 1999, and January 27, 2000, we received petitions from the City of Calabasas and from the Santa Monica Mountains Conservancy (SMMC), respectively, to list the plant under the Act as an endangered species. In 2000, *Chorizanthe parryi* var. *fernandina* was discovered near Santa Clarita in Los Angeles County, California, on land owned by the Newhall Land and Farming Company (Newhall Land Company) within the footprint of the proposed Newhall Ranch development project. Because *C. parryi* var. *fernandina* was already a candidate, we did not conduct either a 90-day or 12-month finding for the species following receipt of the petitions. This document constitutes our proposed rule to list *C. parryi* var. *fernandina* as a threatened species, as well as both our 90-day and 12-month findings on the petitions to list *C. parryi* var. *fernandina.*

In the May 4, 2004, CNOR (69 FR 24876), we changed the LPN for *Chorizanthe parryi* var. *fernandina* from 3 to 6 because we determined that impacts associated with habitat destruction or modification at Laskey Mesa had decreased. The proposed development of Ahmanson Ranch at the Laskey Mesa site did not move forward as previously proposed. This site was purchased by the State of California in 2003, and became part of the Upper Las Virgenes Canyon Open Space Preserve. An LPN of 6 denotes a subspecies or variety facing a nonimminent threat of high magnitude and low recovery potential. *C. parryi* var. *fernandina* has been included, with an LPN of 6, in all subsequent CNORs (70 FR 24870, May 11, 2005; 71 FR 53756, September 12, 2006; 72 FR 69034, December 6, 2007; 73 FR 75176, December 10, 2008; 74 FR 57804, November 9, 2009; 75 FR 69222, November 10, 2010; 76 FR 66370, October 26, 2011; 77 FR 69994, November 21, 2012; 78 FR 70104, November 22, 2013; 79 FR 72450, December 5, 2014; 80 FR 80584, December 24, 2015).

Chorizanthe parryi var. *fernandina* was one of many taxa included in our May 10, 2011, multiyear work plan filed as part of a proposed settlement agreement with Wild Earth Guardians and others in a consolidated case in the U.S. District Court for the District of Columbia challenging our failure to make listing determinations for candidate species (Endangered Species Act Section 4 Deadline Litigation, No. 10–377 (EGS), MDL Docket No. 2165 (''MDL Litigation''), Document 31–1 (D. DC May 10, 2011) (''MDL Settlement Agreement'')). On September 9, 2011, the court accepted our agreement with plaintiffs on a schedule to publish proposed rules or not-warranted findings for the 251 species designated as candidates in 2010 (including *C. parryi* var. *fernandina*) no later than September 30, 2016.

Background

A thorough review of the taxonomy, life history, ecology, population distribution and abundance, and land ownership of *Chorizanthe parryi* var. *fernandina* is presented in the Species Report (Service 2016, pp. 7–20), available on the Internet at *http://www.regulations.gov* under Docket No. FWS–R8–ES–2016–0078; a summary of this information is presented below. We used data specific to *C. parryi* var. *fernandina* when available.

Physical and Biological Characteristics

Chorizanthe parryi var. *fernandina* is a low-growing herbaceous annual plant in the Polygonaceae (buckwheat) family and is typical of many winter-spring native annuals that occur in the Mediterranean climate of California. Historical records show that *C. parryi* var. *fernandina* was found in washes and sandy areas, in the hills and on mesas, generally around the foothills of the San Gabriel Mountains and near Santa Ana in Orange County (Reveal 1989, p. 402; CDFG 2002, p. 12). The probable vegetation in these areas is a type of alluvial scrub called Riversidean alluvial fan sage scrub (Holland, 1986, p. 11; Sawyer *et al.* 2009, pp. 389–391). Currently, *C. parryi* var. *fernandina* is a plant of open habitats, predominately found within openings of sparsely vegetated scrub communities and grasslands, and in the transition zone between these two communities (Dudek 2010a, p. 21; Sapphos 2001, p. 5–13). *C. parryi* var. *fernandina* occurs primarily in areas of poorly developed soils, mostly in loam or silty clay loam with a much lower level of occurrence on sandy loams, and with shallow depth to bedrock and compacted soils. The conditions under which *C. parryi* var. *fernandina* persists are most likely due to decreased competition from native and nonnative plants, as it occurs in areas where other plants cannot become established (Sapphos 2001, p. 5–13; GLA 2000, p. 18; Dudek 2010a, p. 23).

Chorizanthe parryi var. *fernandina* adapted a generalist pollination strategy. The presence of smaller pollinator species (*i.e.,* native ants) and larger, more mobile pollinators (*i.e.,* honeybees (*Apis mellifera*)) facilitates overall reproductive success (Jones *et al.* 2009, p. 39). Seeds of *C. parryi* var. *fernandina* are small, possess no morphological modifications for wind or animal dispersal, and remain in the involucre even after the plant disarticulates (Sapphos 2001, p. 3–5). Small mammals, along with native ants (*e.g.,* harvester ants (*Pogonomyrmex* or *Messor* spp.)), may play a role in seed dispersal (CBI 2000, p. 3). In addition, bioturbation (reworking of soils and sediments by animals or plants) and bare soil patches related to rodent activity have been associated with *C.*

parryi var. *fernandina* (GLA 2000, p. 18; CBI 2000, p. 7).

The genetic characteristics of *Chorizanthe parryi* var. *fernandina* have not been investigated; however, Dr. Deborah Rodgers is currently conducting research of the plant's genetic structure (Dudek 2015, p. 2; Dudek 2016c, p. 9). As of January 2016, all field collection is complete and the study is ongoing (D. Rodgers 2016, pers. comm.).

Historical Abundance and Distribution

Historically, *Chorizanthe parryi* var. *fernandina* was known from no fewer than 10 locations in Los Angeles and Orange Counties (CDFG 2002, p. 14) (see Figure 1, below). The species was last collected in 1929, was not seen for 70 years (1929–1999), and was presumed extinct by the botanical community because *C. parryi* var. *fernandina* was extirpated from all of the areas where it was originally collected (Reveal and Hardham 1989, p. 149). The majority of the historical collections of *C. parryi* var. *fernandina* from the greater Los Angeles metropolitan area were made in areas where urban, agricultural, and industrial development have replaced native habitats. Numerous field botanists have tried to rediscover it, but all efforts have been unsuccessful (Reveal and Hardham 1989, p. 149).

In 1999, *Chorizanthe parryi* var. *fernandina* was discovered along the southern rim of Laskey Mesa within the footprint of the proposed Ahmanson Ranch development project in southeastern Ventura County, California (GLA 2000, p. 1); this was the only known extant population of this plant. The area occupied by *C. parryi* var. *fernandina* in 1999 was estimated to be approximately 6 acres (ac) (2.4 hectares (ha)), comprised of approximately 23,000 plants (GLA 2000, pp. 6–9). The potential threats to the *C. parryi* var. *fernandina* population at this site were reduced in 2003, when the Ahmanson Ranch project did not occur as planned and the State of California purchased the property. However, due to historical land uses at this site, the population has been impacted by loss of habitat and invasive, nonnative grasses.

In 2000, *Chorizanthe parryi* var. *fernandina* was discovered near Santa Clarita in Los Angeles County, California, on land owned by Newhall Land Company. The 2000 survey data did not include population estimates. This population is within the footprint of the proposed Newhall Ranch development project.

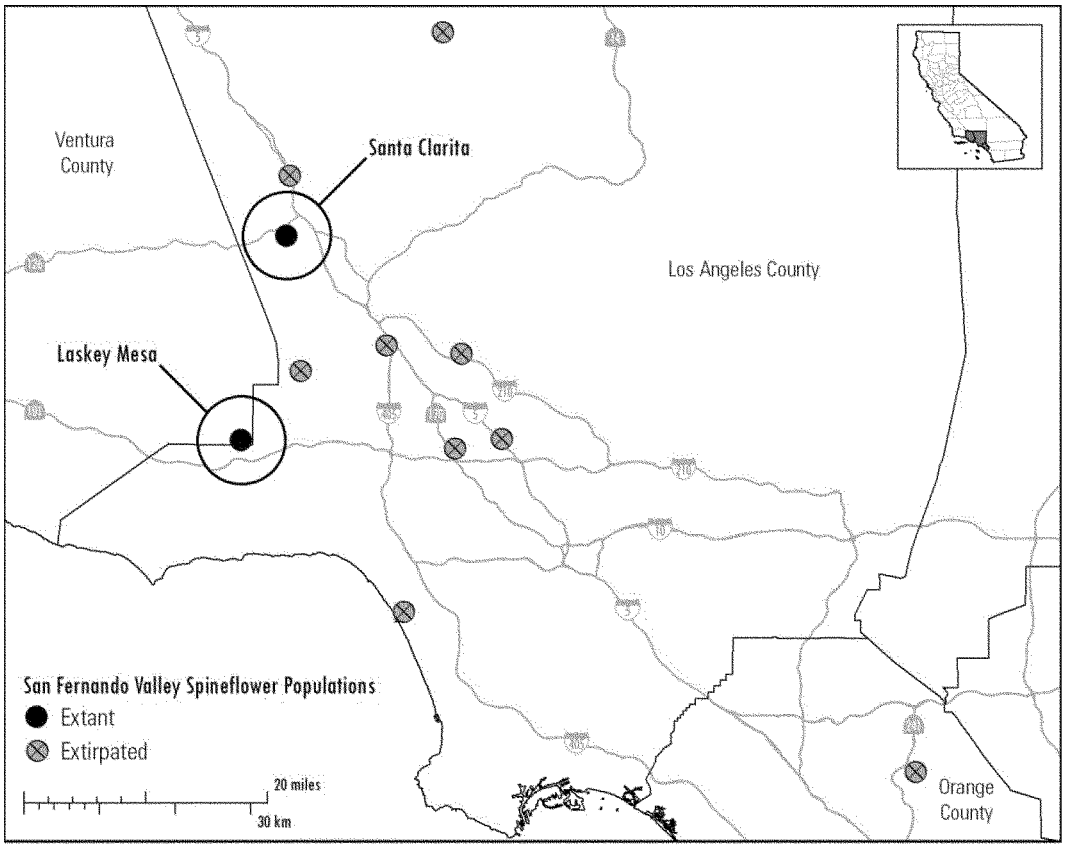

Figure 1. Historical and current *Chorizanthe parryi* var. *fernandina* population locations in California.

Current Abundance and Distribution

Chorizanthe parryi var. *fernandina* currently occupies up to a total of 35 to 40 ac (14 to 16 ha) from two populations in Southern California that are 17 miles (mi) (27 kilometers (km)) apart (see Figure 1, above). The Laskey Mesa population is in Ventura County, California, within the Upper Las Virgenes Canyon Open Space Preserve on land owned by the SMMC and the Mountains Recreation Conservation

Authority (MRCA) (L.A. Mountains 2015; Newhall Land Company 2015, p. 8; MRCA 2015; SMMC 2015). The Santa Clarita population is in Los Angeles County on land owned by Newhall Land Company (Dudek 2010a, pp. 16–17). The Laskey Mesa population currently occupies approximately 15–20 ac (6.1–8.1 ha) (GLA 2000, p. 6; Sapphos 2001, p. 5–2; Sapphos 2003a, p. 3; Cooper 2015, pp. 8–10); the Santa Clarita population currently occupies approximately 20 ac (8.2 ha) (Dudek 2010a, p. 63).

Comparing annual numbers of *Chorizanthe parryi* var. *fernandina* individuals over time is complicated because: (1) Different methodologies and levels of effort have been used to estimate population numbers across both extant populations during survey efforts since 1999; and (2) as is typical of many annual plants, *C. parryi* var. *fernandina* shows inter-annual variation in abundance by several orders of magnitude, ranging from hundreds to millions of individuals. Therefore, occupied area or distribution of the populations is an appropriate surrogate measure for plant population size.

Because of the fluctuation in occupied area and population numbers and the different methodologies used to conduct surveys, we are not able to determine if the population is stable or increasing or decreasing at this time. The area occupied by *Chorizanthe parryi* var. *fernandina* at Laskey Mesa when it was discovered in 1999 was approximately 6 ac (2.4 ha), was up to 19 ac (7.7 ha) in 2003, and was estimated to be approximately 14 ac (5.7 ha) in 2015. The occupied area that was mapped in 2003 appears to have declined overall, though there were areas of expansion (GLA 2000, p. 6; Sapphos 2001, p. 5–2; Sapphos 2003a, p. 3; Cooper 2015, p. 10). The Laskey Mesa population occurs over an area approximately 1 mi (1.6 km) from east to west, and 0.5 mi (0.8 km) from north to south. At the Santa Clarita population, total area occupied per year has ranged from 0.5–16.5 ac (0.2–6.7 ha) between 2002 and 2007. The most recent data from 2011 to 2014 show the cumulative acreage across years ranged from 17.8–20.7 ac (7.2–8.4 ha). There are no population estimates from 2011 through 2014. The Santa Clarita population has roughly the same occupied acreage as Laskey Mesa but is more widely distributed across the landscape, scattered over a range of 4 mi (6.4 km) from east to west, and 4 mi (6.4 km) north to south.

Planned Conservation Measures

At the Laskey Mesa population, there is currently no on-the-ground management of *Chorizanthe parryi* var. *fernandina;* however, the site is conserved as permanent parkland as part of the Upper Las Virgenes Canyon Open Space Preserve. At the Santa Clarita population, the California Department of Fish and Game (CDFG) (referred to as the California Department of Fish and Wildlife (CDFW) as of 2014) issued a California Endangered Species Act section 2081 incidental take permit (ITP) to Newhall Land Company for the partial removal of *C. parryi* var. *fernandina* due to the proposed Newhall Ranch development project. Newhall Land Company developed the Spineflower Conservation Plan (SCP), which was finalized in 2010 (Dudek 2010a) (available at *http://www.regulations.gov*). The SCP serves as the mitigation and conservation plan for the purposes of the ITP (CDFG 2010, p. 2).

As part of the SCP, Newhall Land Company has created a set of seven preserves that include 76 percent of the *Chorizanthe parryi* var. *fernandina* occurrences and occupied habitat at the Santa Clarita site, the majority of which would be adjacent to and bordered by the proposed Newhall Ranch development project. The SCP also includes management actions within the preserves to reduce indirect effects of the proposed development (including those from nonnative, invasive grasses and Argentine ants (*Linepithema humile*)). Newhall Land Company proposes to implement an adaptive management program for impacts under the SCP (Dudek 2010a, p. 141) and the Argentine Ant Control Plan (AACP) (Dudek 2014c, p. 22). Easements and a management endowment for the preserves and monitoring have been established. The rest of the SCP has not yet been implemented.

The proposed development of Newhall Ranch would remove 24 percent of the occurrences of *Chorizanthe parryi* var. *fernandina* and its habitat, and would separate occurrences more than current conditions by removing *C. parryi* var. *fernandina* that connect, or are intermittent between, the larger concentrations of *C. parryi* var. *fernandina* within the designated preserves. Newhall Land Company has proposed to reduce the impacts of this habitat fragmentation by integrating corridors (in particular the Santa Clara River riparian corridor) into their development plans, along with potential *C. parryi* var. *fernandina* outplanting within the preserves (Dudek 2010a, pp. 146–148). Six of the seven preserves are directly connected to adjacent natural or human-created open space via the river corridor, and the seventh, Entrada, is connected to open space via an existing and frequently-maintained utility corridor (CDFW *in litt.* 2016, p. 3). The open space areas within the proposed Newhall Ranch project as a whole, to which the preserves are connected, are intended to maintain landscape-level ecological functions and processes (CDFW *in litt.* 2016, p. 2–3). Open space varies in size and habitat quality, and according to the proposed development plan, human development would be adjacent to or border the majority of the preserves and the corridors. The SCP stresses maintaining natural hydrological conditions during construction of Newhall Ranch to prevent invasion of Argentine ants. However, even though construction has not yet begun, Argentine ants have been identified in two of the preserves and in adjacent corridors. Newhall Land Company proposes to implement control measures for Argentine ants using an integrated pest management strategy (Dudek 2014c, entire).

Newhall Land Company has also deposited funds with the National Fish and Wildlife Foundation for management of *Chorizanthe parryi* var. *fernandina* at the Laskey Mesa site. The August 2014 property analysis record and September 2014 memorandum prepared by Dudek identify the management activities for *C. parryi* var. *fernandina* at Laskey Mesa (Newhall Land Company and Dudek 2014, entire). The funding is to be used for on-the-ground management activities that include research studies, fencing, weeding, surveys, annual reporting, and other activities. When this funding becomes accessible, we anticipate that the MRCA will implement the identified management activities.

In addition, Newhall Land Company recently developed a draft ''San Fernando Valley Spineflower Enhancement and Introduction Plan,'' which outlines a proposal to experimentally introduce *Chorizanthe parryi* var. *fernandina* to areas at the Santa Clarita site that have never been known to be occupied and are outside of the development footprint (Newhall Land Company 2016, entire). We anticipate continuing to work with Newhall Land Company and CDFW on additional conservation for *C. parryi* var. *fernandina* at the Santa Clarita population. The intervening time between a proposed and possible final rule to list this species provides the opportunity to develop measures to improve the future status of *C. parryi* var. *fernandina* at this site.

In our Species Report (Service 2016), we completed an initial evaluation of

the potential effectiveness of the conservation measures in the 2010 SCP, but because Newhall Land Company is supplementing their conservation strategy, we do not consider this evaluation finalized. We will continue to work with Newhall Land Company and CDFW in the development of an expanded and supplemented conservation strategy, and will formally evaluate all measures included in the supplemental conservation strategy using the Service's Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE) (68 FR 15100; March 28, 2003), thereby taking all formalized conservation measures into consideration before making our final determination of the status of the plant.

Summary of Biological Status and Threats

The Act directs us to determine whether any species is an endangered species or a threatened species because of any factors affecting its continued existence. We completed a comprehensive assessment of *Chorizanthe parryi* var. *fernandina* (Service 2016, entire), which is summarized in this document and available on the Internet at *http://www.regulations.gov* under Docket No. FWS–R8–ES–2016–0078. All potential threats of which we are aware that may be acting upon *C. parryi* var. *fernandina* currently or in the future (and consistent with the five listing factors identified in section 4(a)(1) of the Act) are evaluated and addressed in the Species Report (Service 2016, entire).

Stressors that currently act, or may act, on *Chorizanthe parryi* var. *fernandina* in the foreseeable future include development; nonnative, invasive plants; Argentine ants; grazing and agriculture; utility line easements and maintenance; miscellaneous land use; recreation; wildfire; and climate change. The effects of these stressors are magnified by virtue of the plant having small population sizes. For the purposes of this analysis, we define the ''foreseeable future'' time period to be 25 years. This timeframe takes into account the potential impacts of the completion of the proposed development of Newhall Ranch, variation in climate, and planned conservation measures for the Laskey Mesa and Santa Clarita populations. All of these potential stressors are evaluated and presented in our 2016 Species Report (Service 2016, pp. 20–78). The best available data indicate that grazing and agriculture, utility line easements and maintenance, miscellaneous land use, recreation, and wildfire are not resulting in population or rangewide impacts currently or in the future such that they rise to the level of threats. We conclude this because these activities have been or will be removed from most areas that overlap *C. parryi* var. *fernandina,* with the exception of wildfire, for which current impacts at Laskey Mesa and Santa Clarita will remain approximately the same into the future. The remaining stressors—development; nonnative, invasive plants; Argentine ants; and potentially climate change—acting on the small isolated populations are described below because we have determined that population or rangewide impacts may contribute to, or are likely to contribute to, considerable loss of individuals or habitat currently or in the future.

Development

Development consists of converting the landscape into residential, commercial, industrial, and recreational features, with associated infrastructure such as roads. Historically, *Chorizanthe parryi* var. *fernandina* was known from no fewer than 10 locations in Los Angeles and Orange Counties (CDFG 2002, p. 14) (see Figure 1, above). After 1929, the plant was presumed extinct by the botanical community because *C. parryi* var. *fernandina* was extirpated from all of the areas where it was originally collected. The majority of the historical collections of *C. parryi* var. *fernandina* from the greater Los Angeles metropolitan area were made in areas where development has replaced native habitats (Reveal and Hardham 1989, p. 149).

In 1999, *Chorizanthe parryi* var. *fernandina* was discovered at Laskey Mesa within the footprint of the proposed Ahmanson Ranch development project site. This proposed development did not occur as planned. The State of California purchased the property for conservation in 2003. In 2000, *C. parryi* var. *fernandina* was discovered near Santa Clarita on land owned by the Newhall Land Company (Dudek 2010a, pp. 16–17) at the site of the proposed Newhall Ranch development. Currently, development does not impact *C. parryi* var. *fernandina* at either population. In the future, there will be no development at the Laskey Mesa site because the property is owned and managed by the SMMC and MRCA, and preserved as permanent parkland. At the Santa Clarita site, the population is within the footprint of the proposed Newhall Ranch development project.

As planned, the future development of the proposed Newhall Ranch would directly remove 24 percent of the *Chorizanthe parryi* var. *fernandina* population and occupied habitat at the Santa Clarita site, reducing the population from 20.24 ac (8.2 ha) to 15.4 ac (6.2 ha) (Dudek 2010a, Table 12, p. 67). The proposed development would also create indirect effects by fragmenting the habitat between the occurrences of *C. parryi* var. *fernandina,* which would: (1) Create edge effects around remaining populations, such as increasing the risk of invasion of nonnative, invasive plants and animals; and (2) separate occurrences more than current conditions because much of the area between the remaining occurrences would be residential and commercial development (Dudek 2010a, pp. 48–117), potentially affecting pollination and dispersal of the plant (Steffan-Dewenter and Tscharntke 1999, p. 437; Menges 1991, pp. 158–164; Jennerston 1988, pp. 359–366; Cunningham 2000, pp. 1149–1152). These indirect effects of the proposed development would remain into the future post-construction.

Under the SCP, Newhall Land Company designated seven spineflower preserves containing 15.4 ac (6.2 ha) of *Chorizanthe parryi* var. *fernandina* occupied area, which is the remaining 76 percent of the Santa Clarita population. The SCP also includes several preserve management actions intended to address indirect effects of the proposed development. Easements and an endowment to manage and monitor the preserves have been put in place; additional management actions have not yet been implemented.

Overall, we conclude that proposed development at one of the two *Chorizanthe parryi* var. *fernandina* populations will result in the loss of 24 percent of the Santa Clarita population in the future. This equates to a loss of 12–14 percent of the plant rangewide. In addition, indirect effects to the remaining 76 percent of the Santa Clarita population (38–44 percent of the plant rangewide) are expected in the future as a result of fragmenting the landscape. This fragmentation would result in edge effects around the remaining occurrences that put these patches at risk and separate them more than they are under current conditions. It is possible that future management actions to ameliorate indirect effects of the development to the 76 percent of the population that would remain within these preserves after development could be implemented and may be effective. However, at this time, we conclude that development is a future population-level threat to the plant as it would result in loss of habitat and individuals, and further reduce the range of this plant, which is already vulnerable due

to its small size and isolated populations (Factors A and E).

Small, Isolated Populations

The effects of having small, isolated populations include increased risk of extinction from random, naturally occurring events, and potentially reduced genetic variation, which can affect the ability of a species to sustain itself into the future in the face of environmental fluctuations. There are two known populations of *Chorizanthe parryi* var. *fernandina,* one at Laskey Mesa and one at Santa Clarita, each comprising approximately 15 to 20 ac (6 to 8 ha) of occupied area. The two populations at Laskey Mesa and Santa Clarita comprise the current known range of *C. parryi* var. *fernandina;* the populations are approximately 17 mi (27 km) apart from north to south.

Because there are only two populations of *Chorizanthe parryi* var. *fernandina,* naturally occurring events and other stressors increase the risk of extirpation. Small, highly fragmented populations have a high extinction risk due to isolation (no other populations to ''rescue'' a declining or extirpated one) and small total population sizes (MacArthur and Wilson 1967, entire), both of which make them more vulnerable, especially to random, naturally occurring events, such as drought and wildfire (Kohlman *et al.* 2005, entire; Soule *et al.* 1992, p. 44).

In addition, lower and reduced genetic variation may make a population less adapted to existing pressures and incapable of adaptation to new stressors (Frankham 1995, entire). Thus, small populations and low genetic diversity can have synergistic effects with respect to population decline, decreasing a species' ability to persist within a changing environment. In all but extreme cases, genetic losses due to drift and inbreeding within populations can be limited by keeping population sizes large relative to their historical sizes (Neel *et al.* 2008, p. 939). In addition, levels of diversity can be enhanced by high rates of gene flow among populations because such gene flow increases effective population size and facilitates exchange of alleles (Neel *et al.* 2008, p. 950). The genetic characteristics of *Chorizanthe parryi* var. *fernandina* have not been investigated; however, Dr. Deborah Rodgers is currently conducting research of *C. parryi* var. *fernandina*'s genetic structure and the degree of inbreeding depression (Dudek 2015, p. 2; Dudek 2016c, p. 9). As of January 2016, all field collection is complete and the study is ongoing (D. Rodgers 2016, pers. comm.).

Overall, we conclude that having only two small, isolated populations decreases the ability of *Chorizanthe parryi* var. *fernandina* to sustain itself into the future in the face of environmental fluctuations and random, naturally occurring events. Historically, the plant was known from no less than 10 additional locations across southern California. This stressor will continue to affect *C. parryi* var. *fernandina* and its habitat at both sites into the future. It is possible that additional populations at historically occupied but currently extirpated sites would decrease the risk of having small, isolated populations for *C. parryi* var. *fernandina* into the future. However, at this time, we conclude that having small, isolated populations is a current and future population-level threat to the plant (Factor E).

Nonnative, Invasive Plants

Nonnative, invasive plants include nonnative vegetation that occurs within or adjacent to habitat that supports *Chorizanthe parryi* var. *fernandina.* In particular, we focused on the impacts of nonnative grasses and other fast-invading, nonnative annual plants because they are abundant at both sites and are efficient at displacing native vegetation. Nonnative, invasive grasses historically affected the Laskey Mesa and Santa Clarita populations (GLA 2000, p. 5; Dudek 2010a, pp. 48–51). Past activities (*e.g.,* grazing and other human-induced disturbances) have historically occurred over most of the Upper Las Virgenes Canyon Open Space Preserve area including Laskey Mesa; it is not known whether Laskey Mesa was formerly native grassland, coastal scrub, or a mix of both prior to European contact (Dudek 2010a, p. 21). Historical and existing grazing activities, and other historical land uses, have affected much of the natural habitat at the Santa Clarita site, displacing scrub habitats with annual grasslands (Dudek 2010a, pp. 48–51). Currently, nonnative, invasive grasses are abundant at both the Laskey Mesa and Santa Clarita sites and reduce available habitat; compete with *C. parryi* var. *fernandina* for light, water, and soil nutrients; increase the potential for wildfire; and alter pollinator communities. As of 2015, the vegetation at Laskey Mesa was largely comprised of nonnative grasses, primarily ripgut brome (*Bromus diandrus*), but also several other native and nonnative grasses (notably purple needlegrass (*Nassella pulchra*)) (Cooper 2015, p. 5). At the Santa Clarita site, currently 29 percent of the total species are nonnative within the spineflower preserves (Dudek 2013, p. 13); 11 nonnative species in the grass family (Poaceae) were present (Appendix B of Dudek 2013).

This stressor will continue to affect *Chorizanthe parryi* var. *fernandina* and its habitat at both sites into the future. With no future land use change at the Laskey Mesa population, we do not anticipate the impact of nonnative, invasive plants will become worse than current conditions, given that disturbance is a primary factor that promotes the invasion of nonnative plants (Rejmanek 1996; D'Antonio and Vitousek 1992; Hobbs and Huenneke 1992; Brooks *et al.* 2004; Keeley *et al.* 2005). At the Santa Clarita population, the proposed development of Newhall Ranch would convert areas that currently contain nonnative vegetation to urban areas, thereby reducing the total acreage of nonnative vegetation at this site, but this ground disturbance would also create additional opportunities for nonnative plants to invade urban edges of the spineflower preserves and natural open space. In general, nonnative weedy species are often edge species and become more prevalent or increase in abundance, while rare and sensitive species and species that were once widespread tend to decline (Hilty *et al.* 2006, pp. 42–45).

There are currently no management actions that are occurring to reduce direct or indirect impacts from nonnative, invasive plants. However, we note the following future proposed actions:

(1) We anticipate that the MRCA will address the abundance of nonnative vegetation at Laskey Mesa once the funding becomes available for management; however, to date management actions have not been implemented at this site, and the timeline for management actions is unknown.

(2) Newhall Land Company has proposed to restore habitat for *Chorizanthe parryi* var. *fernandina* at Santa Clarita and implement measures as part of the proposed development of Newhall Ranch to reduce the abundance and impact of nonnative vegetation within the spineflower preserves.

Overall, we conclude that nonnative, invasive plants are abundant at both Laskey Mesa and Santa Clarita populations, reduce available habitat quality, compete with *Chorizanthe parryi* var. *fernandina* for resources, and increase potential for wildfire. This stressor historically affected Laskey Mesa and Santa Clarita populations and will continue to affect *C. parryi* var. *fernandina* and its habitat at both sites into the future. It is likely that future management actions to reduce the presence and impact of nonnative,

invasive grasses would be implemented in the future and may be effective. We will further evaluate future conservation measures at such time that Newhall Land Company finalizes supplementing their conservation strategy. However, at this time, we conclude that nonnative, invasive plants are a current and future population-level threat to *C. parryi* var. *fernandina* (loss of individuals) and its habitat (Factors A and E).

Argentine Ants

Argentine ants may impact pollination and seed dispersal vectors of *Chorizanthe parryi* var. *fernandina.* Based on the best available information, Argentine ants have not historically impacted the Laskey Mesa or Santa Clarita populations of *C. parryi* var. *fernandina*. Currently at Laskey Mesa, Argentine ants are present in close proximity to the ranch house and a nearby eucalyptus (*Eucalyptus* spp.) tree, but they were not encountered in areas occupied by *C. parryi* var. *fernandina* because, presumably, the conditions are too dry and thus unsuitable (Sapphos 2000, pp. 6–8). At Santa Clarita, as of February 2016, Argentine ants are present within two spineflower preserves, Entrada and Potrero (Dudek, 2016b, pp. 17, 20), in the Santa Clara River corridor (Dudek 2016b, entire), at Middle Canyon Spring (Dudek 2010a, p. 130), and in the existing utility corridor that runs along the southern portion of the property and through the Entrada Preserve (Dudek 2016b, p. 17). We do not have any information regarding the presence of Argentine ants where *C. parryi* var. *fernandina* occurs outside of the preserves at this site.

At Laskey Mesa, we do not expect Argentine ants will impact *Chorizanthe parryi* var. *fernandina* in the future without a change in land use. At Santa Clarita, Argentine ants already occur and we would expect them to occur within development areas and open areas adjacent to the preserves in the future after development of the proposed Newhall Ranch (Dudek 2010a, p. 130; Dudek 2016b, pp. 4–20). Anthropogenic modifications to the physical environment are preeminent in determining the extent to which Mediterranean scrub communities in southern California are susceptible to invasion by Argentine ants (Holway *et al.* 2002, p. 1617). Invasion of Argentine ants into natural areas from urban areas is a function of moisture, distance from the urban edge, season, and vegetation type (Bolger 2007, p. 303; Suarez *et al.* 1998, pp. 2047–2054; Erickson 1971, p. 264; Human and Gordon 1996, p. 408; Holway 1995, p. 1635; Holway 2005, pp. 563–566; Staubus *et al.* 2015, p. 677). Because Argentine ants are present within two preserves and the Santa Clara River corridor and utility corridor, and because of the proposed development of Newhall Ranch, we anticipate that Argentine ants will be a long-term concern for the persistence of *C. parryi* var. *fernandina* at this site.

Argentine ants can affect *Chorizanthe parryi* var. *fernandina* reproduction by reducing effective pollination, successful seed set, and potentially the degree of heterozygosity of plants. Argentine ants are known to: (1) Displace native epigeic (above-ground) ants (Ward 1987, pp. 13; Human and Gordon 1996, pp. 407–411; Suarez *et al.* 1998, pp. 2047–2054; Holway 2005, pp. 563–566; Holway and Suarez 2006, pp. 321–322; Bolger 2007, pp. 301–303) that act as pollination and seed dispersal vectors for *C. parryi* var. *fernandina*; and (2) reduce floral visits by bees and thus reduce fruit production of plants (*i.e., Calystegia macrostegia* ssp. m*acrostegia* (Santa Cruz morning glory) (Hanna 2015, p. 226); *Ferocactus viridescens* (coast barrel cactus) (LeVan and Holway 2014, pp. 167–169)) in areas dominated by Argentine ants. Based on the best available data, maintaining conditions that support both terrestrial and aerial guilds of pollinators is likely required for long-term viability of *C. parryi* var. *fernandina* (Jones *et al.* 2009, p. 39). The loss of effective pollination through reductions in local pollinator abundance and diversity would reduce successful seed set, or if the plant is at least partially self-compatible, would reduce the degree of heterozygosity within plant (Jones *et al.* 2010, p. 165). *C. parryi* var. *fernandina* would have difficulty maintaining long-term viability after a series of poor seed-production years without a natural diversity of pollinators because effective pollinators lead to significant increases in seed set and seed viability (Jones *et al.* 2009, p. 39; for examples of other annual plants, see Steffan-Dewenter and Tscharntke 1999, entire; Jennersten 1988, entire).

Newhall Land Company incorporated buffers of varying widths in the SCP and proposes to maintain the current hydrology within the spineflower preserves (Dudek 2010a, pp. 15, 125–129) to reduce the potential invasion of Argentine ants into the preserves. Abiotic conditions (*e.g.,* soil moisture) and proximity to human development are primarily responsible for the rate of Argentine ant invasions (Suarez *et al.* 1998, pp. 2047–2054). Buffers between natural areas and urbanization have been suggested to decrease the likelihood of Argentine ant invasion. According to the best scientific information, the varying widths of the buffers around the spineflower preserves in the SCP are less than what is recommended to preclude Argentine ant invasion at urban edges and the proposed water control measures range from moderately to highly effective (Conservation Biology Institute 2000, p. 21; Dudek 2010b, p. 4.5–1770). Newhall Land Company proposes to utilize control methods if Argentine ants are observed in the preserves. The proposed Argentine ant control measures in the SCP and AACP could negatively impact other arthropods that are beneficial to *Chorizanthe parryi* var. *fernandina,* may not be applicable to controlling invasion into preserves (Gilboa *et al.* 2012, entire; Enzmann *et al.* 2012, entire) such as those at Santa Clarita, or are only recommended in closed systems where reintroduction of Argentine ants can be actively withheld (Enriquez Leni 2012, p. 55). The impacts to *C. parryi* var. *fernandina* from Argentine ants are likely to increase at Santa Clarita with the proposed development of Newhall Ranch.

Overall, Argentine ants can directly impact pollinators and reduce effective pollination, reduce successful seed set, and may reduce the degree of heterozygosity of plants. Argentine ant invasion into the spineflower preserves is likely to displace native epigeic ants that are known pollinators and seed dispersers of *Chorizanthe parryi* var. *fernandina*. Similarly, non-ant arthropods that are known pollinators (*e.g.,* honeybees) are likely to be negatively impacted by the presence of Argentine ants in the preserves. Conservation of conditions that support both guilds of pollinators is likely required for long-term viability of *C. parryi* var. *fernandina*. This stressor has not historically impacted *C. parryi* var. *fernandina* at either population. We do not anticipate an impact from Argentine ants at Laskey Mesa because there is no future land use change. At Santa Clarita, Argentine ants currently occur within two preserves (Entrada and Potrero), and the Santa Clara River corridor that connects six of the seven preserves. Argentine ants will occur adjacent to the preserves in the future post-development, and it is likely that Argentine ants will occur in other preserves in the future. It is likely that future management actions to reduce the presence and impact of Argentine ants at Santa Clarita would be implemented. Proposed actions to control Argentine ants have not been shown to be effective without negatively

affecting native species that are important for *C. parryi* var. *fernandina* reproduction. We will further evaluate future conservation measures aimed at controlling Argentine ants at such time that Newhall Land Company finalizes supplementing their conservation strategy. However, at this time, we conclude that Argentine ants are a current and future population-level threat to *C. parryi* var. *fernandina* (loss of individuals) (Factor E).

Climate Change

The term ''climate'' refers to the mean and variability of different types of weather conditions over time, with 30 years being a typical period for such measurements, although shorter or longer periods also may be used (IPCC 2014, p. 119). The term ''climate change'' thus refers to a change in the mean or variability of one or more measures of climate (for example, temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both (IPCC 2014, p. 120). A recent synthesis report of climate change and its effects is available from the Intergovernmental Panel on Climate Change (IPCC) (IPCC 2014, entire).

Global climate projections are informative, and in some cases, the only scientific information available. However, projected changes in climate and related impacts can vary substantially across and within different regions of the world (*e.g.,* IPCC 2007, pp. 8–12). For this analysis across the two populations of *Chorizanthe parryi* var. f*ernandina,* we used a projection tool called ClimateWizard (2015) to estimate what changes in rainfall and temperature, if any, would occur in the region that includes the Santa Clarita and Laskey Mesa populations over the next 50 years. ClimateWizard (2015) is useful in projecting future climate conditions and to compare the projections to baseline values (the latter of which is defined as the average temperature or precipitation between 1961 and 1990 (ClimateWizard 2015)).

There is no way to measure past impacts at either population associated with climate change. Compared to historical/baseline temperature and precipitation measurements, projections of climate change in the south coast region of California indicate that precipitation will decrease slightly and temperature will slightly increase by mid-century. The response of *Chorizanthe parryi* var. *fernandina* may be similar to other plant species with a similar life history. A growing body of literature discusses the specific mechanisms by which climate change could affect the abundance, distribution, and long-term viability of plant species, as well as current habitat configuration over time, including, but not limited to: Root *et al.* (2003), Parmesan and Yohe (2003), and Visser and Both (2005). Some of the responses by plants to climate change presented by these studies and others include the following:

1. Drier conditions may result in less suitable habitat, or a lower germination success and smaller population sizes;
2. Higher temperatures may inhibit germination, dry out soil, or affect pollinator services;
3. The timing of pollinator life cycles may become out-of-sync with timing of flowering;
4. A shift in the timing and nature of annual precipitation may favor expansion in abundance and distribution of nonnative species; and
5. Drier conditions may result in increased fire frequency, making the ecosystems in which a species currently grows more vulnerable to threats of nonnative plant invasion.

Overall, although many climate models generally agree about potential future changes in temperature and precipitation, their consequent effects on vegetation are more uncertain, as is the rate at which any such changes might be realized. It is not clear how or when changes in vegetation type or plant species composition will affect the distribution of *Chorizanthe parryi* var. *fernandina.* Therefore, uncertainty exists when determining the level of impact climate change may have on *C. parryi* var. *fernandina* or its habitat. Compared to historical/baseline temperature and precipitation measurements, projections of climate change in the south coast region of California indicate that precipitation will decrease slightly and temperature will slightly increase by mid-century. But at this time and based on the analysis in the Species Report (Service 2016, pp. 73–78) and summarized above, we do not have reliable information to indicate that climate change is a threat to *C. parryi* var. *fernandina* habitat now or in the future, although we will continue to seek additional information concerning how climate change may affect the plant and its habitat (Factors A and E).

Synergistic Effects

When stressors occur together, one stressor may exacerbate the effects of another stressor, causing effects not accounted for when stressors are analyzed individually. Synergistic effects may be observed in a short amount of time or may not be noticeable for years into the future, and could affect the long-term viability of *Chorizanthe parryi* var. *fernandina.* Stressors that could act synergistically on *C. parryi* var. *fernandina* include development; having small, isolated populations; nonnative, invasive plants; Argentine ants; wildfire, and potentially climate change. At the Laskey Mesa site, the presence of nonnative, invasive grasses increases the frequency of wildfire, which in turn creates more open area for nonnative, invasive plants to grow that are more likely to ignite and carry fire than native vegetation (Keeley *et al.* 2005, p. 2123). At the Santa Clarita site, the future development of Newhall Ranch would directly remove 24 percent of the *C. parryi* var. *fernandina* population, fragmenting the habitat between the occurrences of *C. parryi* var. *fernandina,* which will create edge effects around remaining occurrences within the spineflower preserves, and increase the risk of invasion of Argentine ants and nonnative, invasive plants. In general, invasive species are often edge species and become more prevalent or increase in abundance, while rare and sensitive species and species that were once widespread tend to decline (Hilty *et al.* 2006, pp. 42–45). In addition, the potential loss of habitat and conditions that support growth of *C. parryi* var. *fernandina* due to climate change can work in combination with and exacerbate the effects of all other stressors, such as increasing the frequency or intensity of wildfire and increasing the spread of nonnative, invasive plants and animals. When considered together, the impact of these stressors has the potential to be high. Even though the impact of each of these stressors may be low to moderate under current conditions, the proposed development of Newhall Ranch, which would occur over the next 25 years, will likely exacerbate the impact of the stressors while confining the *C. parryi* var. *fernandina* population at this site to small patches of suitable habitat adjacent to and bordered by urban development. Long-term future impacts may increase synergistic effects, and it is unknown if *C. parryi* var. *fernandina* will be able to adapt to the potential synergistic effect of stressors.

Resiliency, Representation, and Redundancy

We use the principles of resiliency, representation, and redundancy as a lens to evaluate current and future effects to *Chorizanthe parryi* var. *fernandina.* Resiliency refers to the

capacity of an ecosystem, population, or organism to recover quickly from disturbance by tolerating or adapting to changes or effects caused by a disturbance or a combination of disturbances. The degree of resiliency of a species is influenced by the health of the populations, including number of individuals, genetic diversity, and habitat quality. Resiliency increases with a higher number of individuals, increasing genetic diversity, or better habitat quality; it decreases with fewer individuals, less genetic diversity, or lowered habitat quality. In the case of *Chorizanthe parryi* var. *fernandina,* the number of individuals can fluctuate annually by orders of magnitude (GLA 2000; Sapphos 2000, 2001; Dudek 2010a; Cooper 2015; Dudek 2002–2007, 2010, 2011–2014). The genetic characteristics of *C. parryi* var. *fernandina* have not been investigated; however, Dr. Deborah Rodgers is currently conducting research into *C. parryi* var. *fernandina'*s genetic structure and the degree of inbreeding depression (Dudek 2015, p. 2; Dudek 2016c, p. 9). Habitat quality for *C. parryi* var. *fernandina* at the Santa Clarita population would be affected by fragmentation from the proposed Newhall Ranch development, which would result in edge effects, such as increasing the risk of invasion of nonnative, invasive plants and animals. Occurrences of *C. parryi* var. *fernandina* and its habitat would be more separated than current conditions because occurrences that connect, or are intermittent between, the larger concentrations of *C. parryi* var. *fernandina* within the designated preserves would be lost to development, potentially affecting pollination and dispersal of the plant. Highly fragmented populations have an increased extinction risk due to isolation because they are less likely to be repopulated or supplemented by nearby populations, which makes them more vulnerable, especially to random, naturally occurring events such as drought and wildfire (Kohlman *et al.* 2005, entire; Soule *et al.* 1992, p. 44). Reducing resiliency by decreasing habitat quality at the Santa Clarita population increases the overall risk to the plant from disturbance or a combination of disturbances. The best scientific and commercial information available indicates that there are current and future stressors acting upon *C. parryi* var. *fernandina* populations such that we anticipate impacts to its overall resiliency in the future.

Redundancy refers to the ability of a species to compensate for fluctuations in or loss of populations across the species' range such that the loss of a single population has little or no lasting effect on the structure and functioning of the species as a whole. Multiple interacting populations across a broad geographic area provide insurance against the risk of extinction caused by catastrophic events. Because historically there were no fewer than 10 additional populations across Los Angeles and Orange Counties in Southern California, redundancy is decreased for *Chorizanthe parryi* var. *fernandina.* If either of the two extant populations were permanently lost, the redundancy of *C. parryi* var. *fernandina* would be further lowered, thereby decreasing the plant chance of survival in the face of potential environmental or demographic stochastic factors and catastrophic events (*e.g.,* wildfire, extreme drought). We conclude that there is not sufficient redundancy at present to sustain *C. parryi* var. *fernandina* over the long term, given current and future stressors acting upon the population.

Representation refers to a species' ability to adapt to changing environmental conditions related to distribution within the species' ecological settings. Representation is characterized by the breadth of genetic and environmental diversity within and among populations. The level of genetic divergence among the areas where *Chorizanthe parryi* var. *fernandina* grows is unknown. However, occupied area across multiple populations increases the probability of demographic persistence and preservation of overall genetic diversity by providing a larger genetic reservoir. Historically, there were no fewer than 10 *C. parryi* var. *fernandina* populations across southern California, representing at least five level IV ecoregions of the conterminous United States. Ecoregions denote areas of general similarity in ecosystems through analysis of patterns of biotic and abiotic phenomena, including geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology; level IV is the finest ecoregion level developed by the Environmental Protection Agency (Environmental Protection Agency 2016; *https://catalog.data.gov/dataset/level-iv-ecoregions-of-california*). Currently, there are only two *C. parryi* var. *fernandina* populations, 17 mi (27 km) apart, representing only one level IV ecoregion. Therefore, we conclude that representation across different ecological settings for *C. parryi* var. *fernandina* is reduced, decreasing the ability of the plant to adapt to changing environmental conditions into the future, which increases the risk of future extirpation of the plant.

Overall, redundancy and representation are currently reduced and resiliency is likely to decrease in the future, bringing into question whether *Chorizanthe parryi* var. *fernandina* can sustain itself in the face of environmental fluctuations and random, naturally occurring events. Fragmentation of the Santa Clarita population is likely to decrease habitat quality, reducing resiliency at this population and increasing the overall risk to the plant from random, naturally occurring events. With only two populations, there may not be sufficient redundancy to sustain *C. parryi* var. *fernandina* over the long term, given current and future stressors acting upon the populations. Currently, the two *C. parryi* var. *fernandina* populations represent only one level IV ecoregion, down from five, decreasing the ability of the plant to adapt to changing environmental conditions into the future. At this time, we conclude that there may not be sufficient resiliency, representation, or redundancy to sustain *C. parryi* var. *fernandina* over the long term, given current and future stressors acting upon the plant.

Please refer to the Potential Stressors section in the San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina)* Species Report (Service 2016, pp. 20–78) for a more detailed discussion of our evaluation of the biological status of the plant and the factors that may affect its continued existence. Our conclusions are based upon the best available scientific and commercial data.

Determination

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations at 50 CFR part 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, we may list a species based on (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. Listing actions may be warranted based on any of the above threat factors, singly or in combination. This document constitutes the Service's 90-day and 12-month findings on the December 6, 1999, and January 27, 2000, petitions to list *Chorizanthe parryi* var. *fernandina* under the Act as an endangered species.

Based on our review of the best scientific and commercial information available, we find that the current threats are of sufficient imminence, intensity, or magnitude to indicate that *Chorizanthe parryi* var. *fernandina* is likely to become an endangered species within the foreseeable future throughout all of its range (threatened). We have determined that *C. parryi* var. *fernandina* warrants listing based on two of the five factors (Factors A and E), including historical and future loss of habitat and individuals from development (Factors A and E); having small, isolated populations (Factor E); presence of invasive, nonnative plants (Factors A and E); proliferation of Argentine ants (Factor E); and potentially climate change (Factors A and E).

The Laskey Mesa population is currently affected by nonnative, invasive grasses (Factors A and E), being one of two small, isolated populations (Factor E), and potentially by climate change (Factors A and E). Past land-use activities (*e.g.,* grazing and other human-induced disturbances), which have historically occurred over most of the Upper Las Virgenes Canyon Open Space Preserve area including Laskey Mesa, have greatly modified the vegetation and replaced many native plant habitats into nonnative annual grasslands (GLA 2000, p. 5). Nonnative, invasive grasses are currently reducing available habitat for *Chorizanthe parryi* var. *fernandina* throughout this population and degrading the overall quality of the habitat, although this impact may decrease in the future when management is implemented.

The Santa Clarita population is currently affected by nonnative, invasive grasses (Factors A and E); Argentine ants (Factor E); being one of two small, isolated populations (Factor E); and potentially by climate change (Factors A and E). The impacts of nonnative grasses occur throughout the entire population at this site, although this impact may decrease in the future when management is implemented. Argentine ants are currently present within at least two spineflower preserves (Entrada and Potrero), and within the Santa Clara River corridor. The invasion of Argentine ants into the preserves is likely to displace or negatively affect arthropods, including known *Chorizanthe parryi* var. *fernandina* pollinators (*e.g.,* epigeic ants, beetles (Coleoptera), flies (Diptera), honeybees) and seed dispersers (*e.g.,* harvester ants), reducing the natural diversity of pollinators and dispersers, which is expected in turn to decrease the long-term viability of *C. parryi* var. *fernandina* after a series of poor seed-production years.

The Santa Clarita population will also be affected in the future by the proposed Newhall Ranch development project (Factors A and E). The development of Newhall Ranch will remove 24 percent of the *Chorizanthe parryi* var. *fernandina* population at this site, resulting in loss of individuals and habitat. The resulting fragmentation could increase impacts of random, naturally occurring events and result in loss of genetic variation. In addition, edge effects include increased risk of invasion of nonnative plants (Factors A and E) and Argentine ants (Factor E). Argentine ants will likely occur adjacent to the preserves in the future post-development, and it is likely that Argentine ants will occur in other preserves that are currently free of Argentine ants in the future.

Population size, distribution, and diversity can be an indicator of whether a species can sustain itself into the future in the face of environmental fluctuations and natural, randomly occurring events. Decreased resiliency at the Santa Clarita population due to habitat fragmentation from the proposed Newhall Ranch development would increase the overall risk to the plant from disturbance or a combination of disturbances. With only two populations, *Chorizanthe parryi* var. *fernandina* exhibits low redundancy at present, which may be insufficient to sustain the plant over the long term, given current and future stressors acting upon the populations. Historically *C. parryi* var. *fernandina* populations across southern California represented at least five level IV ecoregions; currently, the two *C. parryi* var. *fernandina* populations represent only one level IV ecoregion, decreasing the ability of the plant to adapt to changing environmental conditions into the future. At this time, we conclude that there may not be sufficient resiliency, redundancy, or representation to sustain *C. parryi* var. *fernandina* over the long term, given current and future stressors acting upon the populations.

The Act defines the term ''species'' as includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. The Act defines an endangered species as any species that is ''in danger of extinction throughout all or a significant portion of its range'' and a threatened species as any species ''that is likely to become endangered throughout all or a significant portion of its range within the foreseeable future.'' We find that *Chorizanthe parryi* var. *fernandina* is likely to become endangered throughout all or a significant portion of its range within the foreseeable future based on the current and future threats to the plant. The plants' historical range has been significantly reduced, and the remaining habitat and two populations are significantly and currently impacted by multiple threats at the population or rangewide scale. Therefore, on the basis of the best available scientific and commercial information, we propose listing *C. parryi* var. *fernandina* as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

The threats associated with indirect effects to the Santa Clarita population from the Newhall Ranch proposed development (*e.g.,* fragmentation and edge effects) are expected in the future. Fragmentation would separate *Chorizanthe parryi* var. *fernandina* occurrences more than current conditions, potentially reducing pollination and dispersal, and result in edge effects around the remaining post-development occurrences, including an increase in nonnative plants and Argentine ants. Because these are future threats, we have determined that *C. parryi* var. *fernandina* is not currently in danger of extinction and thus does not meet the definition of ''endangered.'' Rather, these threats are likely to occur in the foreseeable future such that the plant is likely to become endangered throughout all or a significant portion of its range within the foreseeable future, which is the definition of a threatened species.

Under the Act and our implementing regulations, a species may warrant listing if it is endangered or threatened throughout all or a significant portion of its range. Because we have determined that *Chorizanthe parryi* var. *fernandina* is threatened throughout all of its range, no portion of its range can be ''significant'' for purposes of the definitions of ''endangered species'' and ''threatened species.'' See the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (79 FR 37578; July 1, 2014).

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies, private organizations, and

individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Subsection 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning includes the development of a recovery outline shortly after a species is listed and preparation of a draft and final recovery plan. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. Completed recovery plans may be revised to address continuing or new threats to the species, as new substantive information becomes available. The recovery plan also identifies recovery criteria to evaluate when a species may be ready for downlisting or delisting, and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. If we list *Chorizanthe parryi* var. *fernandina,* the recovery outline, draft recovery plan, and the final recovery plan for the plant will be available on our Web site (*http://www.fws.gov/endangered*), or from our Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.,* restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands. If *Chorizanthe parryi* var. *fernandina* is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of California would be eligible for Federal funds to implement management actions that promote the protection or recovery of *C. parryi* var. *fernandina.* Information on our grant programs that are available to aid species recovery can be found at: *http://www.fws.gov/grants.*

Although *Chorizanthe parryi* var. *fernandina* is only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this plant. Additionally, we invite you to submit any new information on this plant whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as an endangered or threatened species and with respect to its critical habitat, if any is 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 the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or 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 consultation with the Service.

Federal agency actions within the plants' habitat that may require conference or consultation or both under section 7 of the Act as described in the preceding paragraph include, but are not limited to, management and any other landscape-altering activities on Federal lands and activities on non-Federal lands that require the issuance of section 404 Clean Water Act (33 U.S.C. 1251 *et seq.*) permits by the U.S. Army Corps of Engineers.

It is our policy, as published in the **Federal Register** on July 1, 1994 (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 a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to endangered and threatened plants. With regard to threatened plants, 50 CFR 17.71 provides that all of the prohibitions in 50 CFR 17.61 applicable to endangered plants apply to threatened plants, with one exception. Thus, the regulations at 50 CFR 17.71(a) 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 any threatened plant. There is an exception for the seeds of cultivated specimens, provided that a statement that the seeds are of ''cultivated origin'' accompanies the seeds or their container. The Service concludes that the following activities would not result in violation of section 9 (this list is not comprehensive): Activities on private land such as grazing management, agricultural conversions, flood and erosion control, residential development, road construction, and pesticide/herbicide application when consistent with label restrictions. Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Critical Habitat for Chorizanthe parryi var. fernandina

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:

(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 that are 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 resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the 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 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) of the Act 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.

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.

Prudency Determination

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. Our regulations (50 CFR 424.12(a)(1)) state that the 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.

There is currently no imminent threat to *Chorizanthe parryi* var. *fernandina* from collection or vandalism under Factor B, and identification and mapping of critical habitat is not likely to increase any such threat. In the absence of finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. The potential benefits of designation include: (1) Triggering consultation under section 7 of the Act in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the plant. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to *C. parryi* var. *fernandina* and may provide some measure of benefit, we find that designation of critical habitat is prudent for *C. parryi* var. *fernandina*.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the species is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist: (i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or (ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

As discussed above, we have reviewed the available information pertaining to the biological needs of *Chorizanthe parryi* var. *fernandina* and habitat characteristics where this plant is located. On the basis of a review of available information, we find that critical habitat for *C. parryi* var. *fernandina* is not determinable because the specific information sufficient to perform the required analysis of the impacts of the designation is currently lacking. We will make a determination on critical habitat no later than 1 year following any final listing determination.

Required Determinations

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 **ADDRESSES**. 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.

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

We have determined that environmental assessments and

environmental impact statements, as defined under the authority of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), need not be prepared in connection with listing a species as an endangered or threatened species under the Endangered Species Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

A complete list of references cited in this rulemaking is available in the San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina)* Species Report available at *http://www.regulations.gov* and upon request from the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Ventura 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; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. Amend § 17.12 paragraph (h) by adding an entry for ''*Chorizanthe parryi* var. *fernandina*'' to the List of Endangered and Threatened Plants in alphabetical order under FLOWERING PLANTS to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Scientific name	Common name	Where listed	Status	Listing citations and applicable rules
FLOWERING PLANTS				
*	*	*	*	*
Chorizanthe parryi var. *fernandina.*	San Fernando Valley spineflower.	Wherever found	T	[*Insert* ***Federal Register*** *citation when published as a final rule*]
*	*	*	*	*

Dated: August 30, 2016.

James W. Kurth,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2016–22167 Filed 9–14–16; 8:45 am]

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