third party testers to administer the CDL skills test.

On April 3, 2020, the Virginia Department of Motor Vehicles (VA DMV) requested an exemption from 49 CFR 383.75 to allow non-government third party testers to administer knowledge tests for CDL and CLP applicants without a State examiner being present. The VA DMV's request was prompted by the closure of VA DMV service centers resulting from the COVID–19 public health emergency. In response to the VA DMV's request, FMCSA indicated that applicable statutes and regulations do not currently prohibit States from allowing a third party to administer CDL and CLP knowledge tests. The Agency also noted its intention to revise the existing guidance, set forth below, to clarify this point.

Regulatory guidance question 1 for 49 CFR 383.75, ''Third Party Testing,'' first issued in 1993 (58 FR 60734, 60739 (Nov. 17, 1993)) and most recently reissued in 2019, states:

*Question 1:* May the CDL knowledge test be administered by a third party?

*Guidance:* No. The third party testing provision found in § 383.75 applies only to the skills portion of the testing procedure. However, if an employee of the State who is authorized to supervise knowledge testing is present during the testing, then FMCSA regards it as being administered by the State and not by a third party. (84 FR 8464, 8472 (Mar. 8, 2019); 62 FR 16370, 16399 (Apr. 4, 1997)).

FMCSA has reconsidered this guidance and concludes that nothing in the Agency's current authorities in 49 U.S.C. chapters 311 or 313, or in 49 CFR parts 383 and 384, prohibits States from permitting third party testers to administer CDL knowledge tests. Accordingly, the Agency amends regulatory guidance question 1 for 49 CFR 383.75 to explain that a State may permit third parties to administer CDL knowledge tests. Pursuant to 49 CFR 384.202, States opting to permit this practice must adhere to current CDL knowledge test standards and requirements set forth in 49 CFR part 383, subparts G and H. FMCSA is currently working on a Notice of Proposed Rulemaking to more fully address the States' use of third party knowledge testers.

## II. Regulatory Guidance

FMCSA issues the following guidance:

Regulatory Guidance to 49 CFR part 383—Commercial Driver's License Standards Section 383.75 Third Party Testing, Guidance ID No. FMCSA–CDL–383.75–Q1–M

*Question 1:* May States allow third party testers to administer CDL knowledge tests for all classes and endorsements, without any State examiner being present?

*Guidance:* Yes. FMCSA's current statutory authorities and regulations do not prohibit States from permitting third party testers to administer CDL knowledge tests. While FMCSA encourages States relying on third party knowledge testers to follow the training and record check standards currently applicable to State CDL knowledge examiners, as set forth in 49 CFR 384.228, this is not a regulatory requirement. If an employee of the State who is authorized to supervise knowledge testing is present during the testing, then FMCSA regards it as being administered by the State and not by a third party.

FMCSA notes that this guidance is intended only to provide clarity to the public regarding existing requirements under the law. The guidance does not have the force and effect of law and is not meant to bind the public in any way.

**Robin Hutcheson,**

*Acting Administrator.*

[FR Doc. 2022–02165 Filed 2–2–22; 8:45 am]

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

### 50 CFR Part 17

**[Docket No. FWS–R8–ES–2019–0065; FF09E22000 FXES1113090FEDR 223]**

**RIN 1018–BE11**

## Endangered and Threatened Wildlife and Plants; Removing San Benito Evening-Primrose (Camissonia benitensis) From the Federal List of Endangered and Threatened Plants

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

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service or USFWS), are removing San Benito evening-primrose (*Camissonia benitensis*), a plant native to California, from the Federal List of Endangered and Threatened Plants on the basis of recovery. This final rule is based on a thorough review of the best available scientific and commercial information, which indicates that the threats to the species have been reduced or eliminated to the point that it has recovered and is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future. Therefore, the plant no longer meets the definition of an endangered or threatened species under the Endangered Species Act of 1973, as amended (Act).

**DATES:** This rule is effective March 7, 2022.

**ADDRESSES:** This final rule, the post-delisting monitoring plan, and supporting documents are available on the internet at *https://www.regulations.gov* or at *https://ecos.fws.gov.*

In the Search box, enter FWS–R8–ES–2019–0065, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, click on the Final Rule box to locate this document.

*Document availability:* The recovery plan, 5-year review summary, and post-delisting monitoring plan referenced in this document are available at *https://www.regulations.gov* under Docket No. FWS–R8–ES–2019–0065.

**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 93003; by telephone 805–644–1766. Direct all questions or requests for additional information to: SAN BENITO EVENING PRIMROSE QUESTIONS, to the address above (See **ADDRESSES**). Individuals who are hearing-impaired or speech-impaired my call the Federal Relay Service at 800–877–8339.

**SUPPLEMENTARY INFORMATION:**

### Executive Summary

*Why we need to publish a rule.* Under the Act, a species may warrant removal (*i.e.,* ''delisting'') from the Federal List of Endangered and Threatened Plants if it no longer meets the definition of an endangered species or a threatened species. Delisting a species can only be completed by issuing a rule.

*What this document does.* We are removing San Benito evening-primrose (*Camissonia benitensis*) from the Federal List of Endangered and Threatened Plants based on its recovery. The prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, will no longer apply to the San Benito evening-primrose.

*The basis for our action.* Under the Act, we may determine that a species is an endangered species or a threatened species because of any of five factors: (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. We have determined that the threats to the species have been reduced or eliminated so that San Benito evening-primrose no longer meets the definition of an endangered or threatened species under the Act.

Under the Act and our implementing regulations at 50 CFR 424.11, we may delist a species if the best available scientific and commercial data indicate that: (1) The species is extinct; (2) the species does not meet the definition of an endangered species or a threatened species when considering the five factors listed above; or (3) the listed entity does not meet the statutory definition of a species. Here, we have determined that the San Benito evening-primrose should be delisted because, based on an analysis of the five listing factors, it has recovered and no longer meets the definition of an endangered species or a threatened species.

Off-highway vehicle recreation, the greatest persistent threat to the species, has been reduced to levels that no longer pose a significant threat of extinction to San Benito evening-primrose or its habitat. Additionally, the species is more wide-ranging and common than originally known and occurs across a broader range of habitat types (Bureau of Land Management (BLM) 2018, p. 32). The number of known occurrences has increased from 9 to 79; the range of the species is now known from 3 watersheds; and occupied habitat covers 63.2 acres (25.6 ha).

*Peer review and public comment.* We evaluated the species' needs, current conditions, and future conditions to support our June 1, 2020, proposed rule to delist the San Benito evening-primrose (85 FR 33060). We sought comments from independent specialists to ensure that our determination is based on scientifically sound data, assumptions, and analyses. We invited these peer reviewers to comment on the proposed rule and draft post-delisting monitoring plan. We considered all comments and information we received during the public comment period on the proposed rule and the draft post-delisting monitoring plan when developing this final rule.

**Previous Federal Actions**

On February 12, 1985, we listed San Benito evening-primrose as a threatened species (50 FR 5755–5759) based primarily on the threats from motorized recreation and active gravel mining. Nine occurrences of the plant were known at the time, ranging from only 10 to 100 individuals each (50 FR 5755). At the time of listing, we found that designation of critical habitat was not prudent, and no further action regarding critical habitat has been taken (50 FR 5757–5759).

A notice of the availability of a recovery plan for San Benito evening-primrose was subsequently published on September 19, 2006 (71 FR 54837–54838) (Recovery Plan).

In 2009, the Service conducted a 5-year review (USFWS 2009, entire) and found that the San Benito evening-primrose still met the definition of a threatened species. In addition, we announced the initiation of another 5-year review on June 18, 2018 (83 FR 28251–28254). On June 1, 2020, we proposed to delist the San Benito evening-primrose (85 FR 33060) and announced the availability of a draft post-delisting monitoring plan. The June 1, 2020, proposed rule to remove San Benito evening-primrose from the Federal List of Endangered and Threatened Plants also serves as a 5-year review for the species.

**Summary of Changes From the Proposed Rule and Post-Delisting Monitoring Plan**

We considered all comments and information we received during the comment period for the proposed rule to delist San Benito evening-primrose (85 FR 33060; June 1, 2020). This consideration resulted in the following changes from the proposed rule in this final rule:

- We made minor editorial changes and revised various sections of the rule based on public and partner comments.
- We reevaluated the climate change analysis with a range more specific to San Benito evening-primrose.
- We updated the population trend analysis with current information and following comments from the BLM.
- We updated off-highway vehicle (OHV) trespass information with current data.
- We updated total known occurrences with current data.
- The post-delisting monitoring plan was revised in partnership with the BLM.

**Final Delisting Determination**

**Background**

San Benito evening-primrose is a small, yellow-flowered, annual species in the evening-primrose family (Onagraceae). The plant is slender with narrowly elliptic leaves 0.3 inches (in) (7–20 millimeters (mm)) in length and minutely serrate. The stem may be erect or decumbent (lying on the ground with the extremity curving upward) and ranges in height from 1.2 to 7.9 in (3–20 centimeters (cm)) with branches widely spreading. Petals are 0.1 to 0.2 in (3.5 to 4 mm) and may fade from yellow to reddish (Wagner 2012, pp. 925–929). San Benito evening-primrose is autogamous (self-fertilizing) and produces seed that persists for long periods of time, which creates well-established seed banks where the species occurs (Taylor 1990, pp. 7–8).

San Benito evening-primrose is known only from the southeastern portion of San Benito County, the western edge of Fresno County, and the northeastern edge of Monterey County, largely within the New Idria serpentinite mass (figure 1). Serpentine is a rock formed from ancient volcanic activity that results in minerals with a greenish and brownish appearance such as antigorite, lizardite, and chrysotile. The New Idria serpentinite mass covers approximately 13,000 hectares (32,124 acres) and is one of the largest serpentine formations in the southern Coast Ranges of California (Rajakaruna et al. 2011, p. 698).

Average rainfall in areas occupied by San Benito evening-primrose is 16–17 in (40–42 cm) annually with temperatures ranging from lows of 21 to 34 degrees Fahrenheit (°F) (−6.7 to −1.1 degrees Celsius (°C)) in the winter to highs of 90 to 100 °F (32.2 to 37.8 °C) in the summer (USFWS 2009, p. 8). San Benito evening-primrose occurs across an elevation range from 1,929 ft (588 m) to 4,684 ft (1,428 m). At the extremes of the elevation range, the minimum precipitation may be as low as 15 in (38 cm) and as high as 20 in (51 cm) respectively (BLM 2020a, pp. 1–2). Occupied habitat of San Benito evening-primrose occurs primarily on land managed by the Bureau of Land Management (BLM) (36.5 acres), as well as on private land (26.6 acres).

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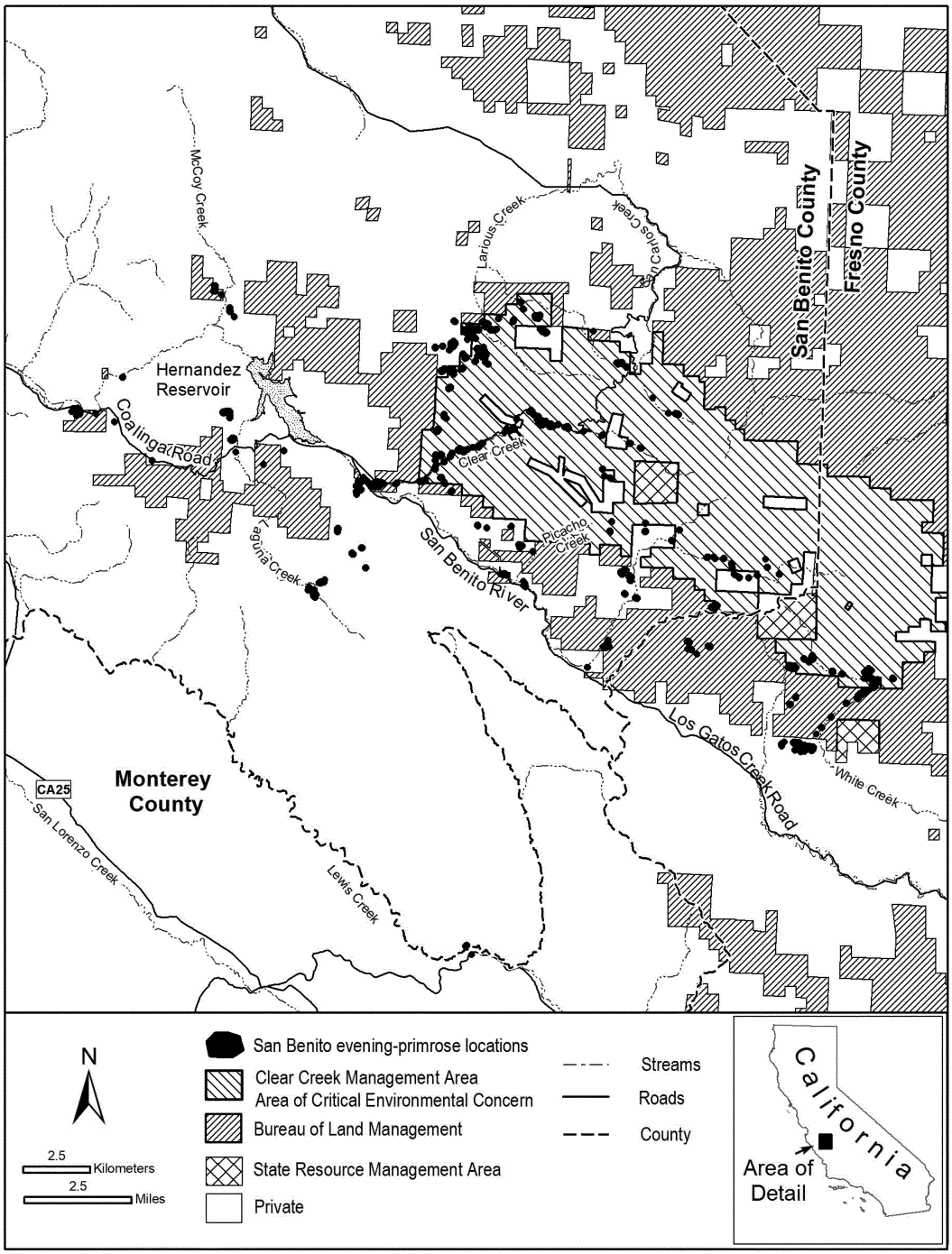


**Figure 1.** Known locations of San Benito evening-primrose with land management identified.

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San Benito evening-primrose occurs on alluvial terraces and upland geologic transition zones containing sandy to gravelly serpentine derived soil, but may also be found on greywacke, chert, and syenite derived soils (Raven 1969, pp. 332–333, Taylor 1990, pp. 24–36, 39–42, BLM 2018, pp. 17–19). Alluvial terrace habitat is characterized by serpentine soils that are deeper and better developed than neighboring slopes, generally flat (<3 degrees slope), and contain less than 25 percent cover of chaparral or woody vegetation (Taylor 1990, pp. 69, 71–72, USFWS 2006, p. 13). Geologic transition zone habitat is characterized by sandy soils within uplands on slopes between 15 degrees and 60 degrees as well as rock outcrops and talus (Dick et al. 2014, p. 167, BLM 2018, p. 18). The transition

zone that the habitat type refers to is the boundary between serpentine masses and non-serpentine rock (BLM 2014, pp. 110–112). Generally, alluvial habitat is found closer to water and in association with *Quercus durata* (leather oak), *Arctostaphylos* spp. (manzanita), *Pinus jeffreyi* (Jeffrey pine), *P. sabiniana* (bull pine), and *P. coulteri* (Coulter pine). Geologic transition zone habitat is found far from water and in association with *Q. douglassii* (blue oak), *Juniperus californicus* (California juniper), and *Q. berberidifolia* (scrub oak) (Dick et al. 2014, p. 167).

Within this rule, a single ''occurrence'' refers to areas where San Benito evening-primrose has been mapped. Mapped areas within 0.25 mi (0.4 km) of each other, but discontinuous, are considered a single occurrence consisting of multiple sub-occurrences. The BLM has recorded point data, in addition to polygon sub-occurrences for San Benito evening-primrose, which are referred to as point locations in this report. Point locations are mapped point features while sub-occurrences are mapped polygon features.

The BLM first identified the geologic transition zone habitat type in 2009 through surveys of potential habitat and known occurrences of San Benito evening-primrose. The discovery of the new habitat type, and associated new occurrences, increased the number of known point locations from 69 in 2009 to 666 in 2020 (BLM 2020b, p. 25). The difference between geologic transition zone habitat and alluvial terrace habitat suggested the possibility that there were two genetically distinct lineages of San Benito evening-primrose or that the species may be hybridizing with the close relatives plains evening primrose (*C. contorta*) and sandy soil suncup (*C. strigulosa*). However, it was determined that hybridization was not occurring and that watersheds and habitat type did not explain any genetic differences that were identified (Dick et al. 2014, entire). The findings indicate that the known occurrences of San Benito evening-primrose are all part of the same genetic population (Dick et al. 2014, entire).

The BLM has been conducting surveys for San Benito evening-primrose since 1980 within the Clear Creek Management Area, where the majority of sub-occurrences are located. The surveys conducted by the BLM have resulted in an increase in the understanding of the range of the species, habitat preferences, life history, and numbers (BLM 2018, entire). The monitoring has resulted in the identification of 666 point locations occurring within and outside of the boundary of the Clear Creek Management Area (CCMA), including a substantial number on private land (7 known point locations in 2009 and 287 known point locations in 2020) (BLM 2020b, p. 25).

The species' current known range is bordered on the north by New Idria Road near the confluence of Larious Creek and San Carlos Creek, to the South at the Monterey County Line near Lewis Creek, to the west near the Hernandez Reservoir, and to the east by the eastern boundary of the serpentine area of critical environmental concern (ACEC), an area of approximately 307 square miles. The BLM's ACEC designations highlight areas where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources. ACECs can also be designated to protect human life and safety from natural hazards. The known occurrences cover 64 ac (26 ha) of public and private land, and potential suitable habitat is currently estimated at 260 ac (105 ha) (BLM 2018, p. 31).

The findings of the BLM have been documented in annual reports from 2009 to 2020 and are the source of the most recent information regarding the status of the occurrences of San Benito evening-primrose. In response to the proposed rule, the BLM provided additional information regarding the effects of climate change, woody vegetation dynamics, habitat recolonization, photopoint monitoring, and life-history information (BLM 2020a, BLM 2020c, BLM 2020d, BLM 2020e, BLM 2020f).

This final determination incorporates data provided by the BLM within the 2018 and 2020 Annual Report (BLM 2018, entire, BLM 2020b, entire) as well as the supplemental information provided in response to the proposed rule. In 2020, 79 occurrences, consisting of 519 sub-occurrences, and 666 point locations were mapped by the BLM (table 1) (BLM 2018, spatial data, BLM 2020b, pp. 10–22).

TABLE 1—2020 BLM SURVEY RESULTS

| | Number of occurrences | Number of sub-occurrences | Number of point locations | Acres (hectares) |
|---|---|---|---|---|
| 2020 San Benito evening-primrose *(Camissonia benitensis)* survey results | 79 | 519 | 666 | 63.2 (25.6) |

Occurrences consist of sub-occurrences (mapped polygons) within 0.25 mile of each other. Point locations are reported in the 2020 Annual Report (BLM 2020 p. 25). Acreage data are derived from the spatial extent of the mapped occurrences.

The BLM compared historical occurrence data to their point location counts in their annual reports, which we used in the Recovery Plan (USFWS 2006, entire) and 5-year review (USFWS 2009, entire). Here, we have chosen to update the occurrence organization because the numbers of occurrences, sub-occurrences, and point locations have increased dramatically since 2009. Table 1 illustrates the relationship between occurrences, sub-occurrences, and point locations. Occurrence contains sub-occurrences and point locations. Sub-occurrences contain point locations, and point locations have no further break down. When possible, we use the same terminology as previous reports.

**Recovery and Recovery Plan Implementation**

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Under section 4(f)(1)(B)(ii), recovery plans must, to the maximum extent practicable, include objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of section 4 of the Act, that the species be removed from the List.

Recovery plans provide a roadmap for us and our partners on methods of enhancing conservation and minimizing threats to listed species, as well as measurable criteria against which to evaluate progress towards recovery and assess the species' likely future condition. However, they are not regulatory documents and do not substitute for the determinations and promulgation of regulations required under section 4(a)(1) of the Act. A

decision to revise the status of a species, or to delist a species, is ultimately based on an analysis of the best scientific and commercial data available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan.

There are many paths to accomplishing recovery of a species, and recovery may be achieved without all of the criteria in a recovery plan being fully met. For example, one or more criteria may be exceeded while other criteria may not yet be accomplished. In that instance, we may determine that the threats are minimized sufficiently and that the species is robust enough that it no longer meets the definition of an endangered species or a threatened species. In other cases, we may discover new recovery opportunities after having finalized the recovery plan. Parties seeking to conserve the species may use these opportunities instead of methods identified in the recovery plan. Likewise, we may learn new information about the species after we finalize the recovery plan. The new information may change the extent to which existing criteria are appropriate for identifying recovery of the species. The recovery of a species is a dynamic process requiring adaptive management that may, or may not, follow all of the guidance provided in a recovery plan.

Below, we summarize the recovery plan goals and discuss progress toward meeting the recovery objectives and how they inform our analysis of the species' status and the stressors affecting it.

The Recovery Plan (USFWS 2006, pp. 48–74) describes the recovery goal and criteria that need to be achieved in order to consider delisting San Benito evening-primrose. We summarize the goal and then discuss progress toward meeting the recovery criteria in the following sections.

*Recovery Goal*

In the Recovery Plan, the stated goal is to restore occurrences of San Benito evening-primrose so that they are self-sustaining and protected from future threats (USFWS 2006, p. 51). This goal is broadly evaluated through trends in the observed numbers of individuals indicated by annual monitoring, the abundance and distribution of suitable habitat, evaluation of the seed bank, and the effectiveness of protective measures that have been implemented to reduce threats from human activities such as mining, OHV use, and other recreational activity (USFWS 2006, pp. 51–52). In order to determine if a species meets the definition of a threatened species, we must consider potential impacts within the foreseeable future. The Recovery Plan (USFWS 2006, entire) used 20 years as the period of time to evaluate population stability because the number of individuals fluctuates widely from year to year and a longer monitoring time will better reflect changes in trends despite this variation (USFWS 2006, pp. 51, 53). Given this and information on potential threats into the future, in this final rule we have adopted 20 to 30 years as the foreseeable future to evaluate potential threats and the species' responses to those threats.

*Recovery Criteria*

The Recovery Plan identified five criteria for delisting the San Benito evening-primrose (USFWS 2006, pp. 52–54):

(1) Research has evaluated the possibility for restoration of suitable habitat and the natural rate of the replacement of suitable habitat (*i.e.,* succession from open habitat to woody vegetation), the ecology of the seedbank, and population viability modeling. The results of completed research, and any other research that was conducted, should inform all other recovery criteria suggested by the Recovery Plan and are listed below.

(2) Known occurrences and sufficient additional suitable habitat within each watershed unit throughout its range are protected from direct effects from OHV use and other recreational activities. Appropriate levels of compliance with use regulations by recreationists have prevented adverse impacts to San Benito evening-primrose occurrences and habitat.

(3) Currently occupied and suitable habitat for the species has been restored and maintained over an appropriate period of time, as informed by monitoring and research. Twenty years was estimated as ''the appropriate period of time'' in the Recovery Plan (USFWS 2006, p. 53). The Recovery Plan emphasizes maintaining suitable habitat and more precisely defining the requirements of suitable habitat. Additionally, disturbance and erosion rates should not be elevated above natural levels and the seed bank should be evaluated for continued persistence, as above-ground numbers of individuals are known to fluctuate widely from year to year.

(4) Population sizes have been maintained over a monitoring period that includes multiple rainfall cycles (successive periods of drought and wet years). The Recovery Plan states that the trend of above-ground counts of species should be stable or increasing and defines non-drought years as those with greater than 15 in (38 cm) of rainfall from October through April at the Priest Valley weather station.

(5) A post-delisting monitoring plan for San Benito evening-primrose has been developed.

*Achievement of Recovery Criteria*

*Criterion 1:* Research has been completed.

Research to increase the understanding of the extent of existing occurrences, the range of suitable habitat, the persistence of the seed bank, and analysis of the genetic variability across watersheds and habitat types has been undertaken since listing in 1985 (Taylor 1990, entire; BLM 2010, entire; BLM 2014, entire; BLM 2015, entire; BLM 2018, entire; Dick et al. 2014, entire).

*Habitat Suitability.* Research conducted in 1990 (Taylor 1990, entire) provided the first comprehensive overview of the ecology of San Benito evening-primrose that established the initial understanding for the requirements of suitable habitat for the species, the species' life history, including early examination of the seed bank and germination characteristics, and the known distribution of the species as well as threats to the known occurrences. From 1990 through 2010, San Benito evening-primrose was thought to be restricted to alluvial terrace habitat that was characterized by relatively deep and well-developed, serpentine-derived soils on flat ground (compared to nearby barren serpentine slopes), association with ephemeral or intermittent streams, and open habitat lacking woody vegetation (Taylor 1990, pp. 39–40). In 2010, the BLM identified a second type of habitat, termed the ''geologic transition zone,'' that was suitable for San Benito evening-primrose (BLM 2010, pp. 8–16). The geologic transition zone was characterized by relatively steeper slopes (0–~60 degrees) of uplands on serpentine soils at the interface with non-serpentine soils. Geologic transition zone habitat is not topographically constrained to the toe of slopes, whereas alluvial stream terrace habitat is.

From the time of listing through 2018, the BLM conducted extensive surveys within these habitat types, which led to the discovery and documentation of more than 600 new point locations. The results indicated that the majority of both occupied and potential habitat is greatest within the geologic transition zone type (BLM 2018, p. 32). The new sub-occurrences identified within the geologic transition zone habitat are

relatively undisturbed in comparison to the highly disturbed sites of the initial locations known from alluvial stream terraces (BLM 2010, p. 11). The majority of new point locations are found outside of the historical areas used by OHVs and as a result have not been subjected to the same levels of disturbance. Approximately one-third to half of the currently known occurrences exist on private land outside of the Clear Creek Management Area (table 2, table 3) (BLM 2018, p. 33).

*Seed Bank Analysis.* Our understanding of the role of the seed bank in the life history of San Benito evening-primrose has similarly increased due to research efforts. The number of viable seeds within the seed bank was often many times greater than the above-ground expression in any given year—including those years in which there was a large above-ground expression (Taylor 1990, p. 57). The size of the seed bank at existing locations was reevaluated in 2010 by the BLM (BLM 2011, pp. 36–42). The BLM found that there were 519 times as many seeds as emergent plants when averaged across 67 sub-occurrences in 2010, emphasizing that the size of the seedbank is much greater than the total number of observed individuals in a given year. Maintaining a large amount of seed within the soil is a common strategy for short-lived annuals in habitats with frequent disturbance because the persistent seed bank buffers against stochastic environmental events such as drought (Kalisz and McPeek 1993, pp. 319–320; Fischer and Matthies 1998, pp. 275–277; Adams et al. 2005, p. 434). In species that develop large seed banks, it is common to see no above-ground expression one year and to see a large expression the following year, and this pattern has been well-documented with San Benito evening-primrose (BLM 2018, p. 11).

*Disturbance Ecology.* Frost heaving (the expansion and contraction of water within the soil during freeze-thaw cycles), small mammal soil disturbance (*e.g.,* gopher burrowing), sediment movement from adjacent slopes, and erosion from stream flows were identified as the primary sources of natural disturbance experienced by San Benito evening-primrose (Taylor 1990, pp. 39–42, 57). In response to the proposed rule, the BLM developed severity tables for natural and anthropogenic sources of disturbance (BLM 2020c, pp. 24–26). While San Benito evening-primrose tolerates, and is adapted to, disturbance from natural processes, anthropogenic disturbances from activities such as mining, road and building construction, and OHV use are much more severe and may lead to loss of habitat through soil removal, soil compaction, and increased rates of erosion (BLM 2010, p. 29, Snyder et al. 1976, pp. 29–30, Brooks and Lair 2005, p. 7, pp. 130–131, Lovich and Bainbridge 1999, pp. 315–317, Switalski et al. 2017, p. 88).

San Benito evening-primrose occurs in areas where the disturbance regime is intermediate between two extremes of not enough disturbance and too much disturbance. The disturbance regime may be viewed as a combination of the frequency of disturbance and the intensity of disturbance. Too little disturbance results in increased competition from woody vegetation that negatively affects San Benito evening-primrose occurrences. Conversely, high levels of disturbance results in direct mortality and loss of seed bank (BLM 2020c, entire). Alluvial terrace habitat that was greater than 50 percent disturbed from OHV use was considered to be unsuitable for San Benito evening-primrose (Taylor 1990, p. 71; USFWS 2006, p. 13). Geologic transition zone habitat was not considered here because it had not yet been recognized as suitable habitat, but tends to have less OHV disturbance than alluvial terrace habitat. The seed bank of San Benito evening-primrose is very large, and the amount of seed present is many times greater than the amount of individuals that germinate in any given year (Taylor 1990, p. 57, BLM 2011, pp. 33–42). Additionally, the BLM found that the majority of the existing seed bank is found within the top 1 to 3 in (4 to 8 cm) of soil (BLM 2013, pp. 19–34). As a result, any damage to, or loss of, the top layer of soil has the potential to negatively affect the ability of the species to persist through time.

*Population Trends.* The Recovery Plan recommends target numbers of individuals for a subset (27) of the known occurrences of San Benito evening-primrose (USFWS 2006, pp. 56–58). These occurrences also generally have the longest record of survey data and include the initial occurrences described in Taylor (1990, entire). Consistent data collection of all 27 of these occurrences began in 1998. Although data for some occurrences is available from 1983, the current population trend analysis uses 1998 as a starting point in order to keep the total number of occurrences per year the same, thereby allowing comparisons across years. Data from the BLM indicate that the number of individuals observed annually at these occurrences has varied around a mean of approximately 9,690 individuals (figure 2). The 5-year moving average indicates a slightly oscillating but generally stable trend in the average number of individuals from 1998 through 2020. Alternative analyses of the data using either more years of historical data and/or more occurrences have all concluded relatively similar results suggesting that the population is stable (85 FR 33060, BLM 2020g, entire).

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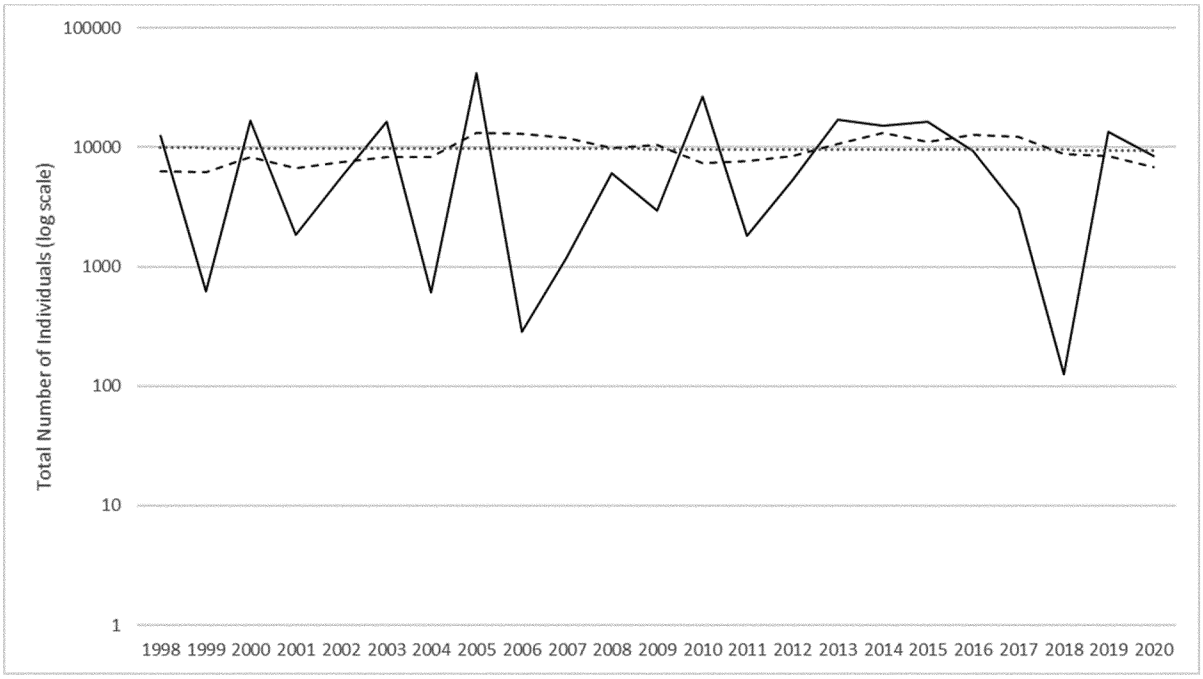


**Figure 2.** Total number of individuals observed at 27 occurrences of San Benito evening-primrose *(C. benitensis)* within the Clear Creek Management Area from 1998 through 2020. The solid line shows the annual total, while the hashed line shows the 5-year moving average. The dotted line shows a linear fit of the annual total data. Note that the y-axis is on a log scale.

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*Population Genetics.* The occurrences of San Benito evening-primrose found within geologic transition zone habitat were at first thought to be genetically distinct from occurrences within alluvial terrace habitat. The new occurrences were also located within different watersheds from the first known occurrences, and there was some question as to whether or not the species may be hybridizing with a close relative, *Camissonia strigulosa* (contorted primrose). If the occurrences were genetically distinct, recovery actions, such as restoration of degraded habitat and out-planting efforts, would need to be identified for each habitat type. There were three distinct genetic clusters of San Benito evening-primrose found, but none of the genetic clusters coincided with type of habitat or watershed (Dick et al. 2014, entire). Additionally, the same study found no evidence of hybridization between San Benito evening-primrose and contorted primrose. Because the genetic diversity identified within the occurrences was widespread and uncorrelated with habitat and watershed, future out-planting efforts would not need to be restricted to genetic type. The study instead concluded that seed from different occurrences should be mixed to increase diversity across the entire geographic range.

In summary, research to increase the understanding of the extent of existing occurrences, the range of suitable habitat, the persistence of the seed bank, and analysis of the genetic variability across watersheds and habitat types have been undertaken fulfilling recovery criterion 1.

*Criterion 2:* Known occurrences and sufficient additional suitable habitat within each watershed unit throughout its range are protected from direct effects from OHV use and other recreational activities.

Wire fencing, steel pipe barriers, signage, and enforcement of trail restrictions were used to protect San Benito evening-primrose and suitable habitat prior to the 2006 amendment to the Resource Management Plan. The 2006 amendment to the Resource Management Plan closed to OHVs all areas not marked for limited or open use. This restricted the total OHV use area to 242 miles (390 km) of OHV trails and directed OHV use away from areas that provided suitable habitat for, or were occupied by, San Benito evening-primrose (BLM 2006 p. 3–1). By 2009, non-compliance with the 2006 Resource Management Plan had declined (BLM 2008, pp. 5–9; USFWS 2009, pp. 19–21).

In 2008, the EPA issued a report concluding that exposure to naturally occurring asbestos during recreational activities, including OHV use, was higher than the acceptable risk range for causing cancer within the CCMA (Environmental Protection Agency (EPA) 2008, p. 6–3). The level of exposure to asbestos varied with recreational activity and participant age, but was significant enough to warrant an emergency temporary closure of the CCMA (BLM 2008, p. 2). Although not the intent, the closure effectively temporarily protected all known occurrences of San Benito evening-primrose from OHV disturbance. The temporary closure remained in place until the 2014 amendment to the Resource Management Plan was adopted (BLM 2014, entire). The 2014 Resource Management Plan further restricted OHV access to areas of suitable habitat and known sub-occurrences of San Benito evening-primrose by reducing the amount of open trails and restricting access to the Serpentine ACEC to 5 days per year per recreationalist through a permit system and a series of locked gates (BLM 2014, pp. 1–18).

The BLM has conducted OHV non-compliance monitoring as part of the annual San Benito evening-primrose

surveys since 2008 and the initial closure of the Serpentine ACEC (table 2). During this time, non-compliance has remained relatively low with the number of point locations or potential habitat being impacted by OHV ranging from 2 to 11 locations in a given year. The amount of disturbance within each area has been observed to be low, and natural recovery was observed. Upper Clear Creek, Larious Canyon, and San Carlos Creek are areas of repeated non-compliance despite annual repairing of fencing and barriers and issuance of citations for violating the closures when users are caught (BLM 2013, p. 5, BLM 2015, p. 6, BLM 2020b, pp. 7–8). The intensity of non-compliance varied from heavy (greater than 10 tracks observed) to moderate or low (less than 10 tracks observed). The BLM assumes that non-compliant OHV use originates from private land adjacent to the CCMA.

TABLE 2—SUMMARY OF OFF-HIGHWAY VEHICLE NON-COMPLIANCE WITHIN THE SERPENTINE AREA OF CRITICAL ENVIRONMENTAL CONCERN 2008 THROUGH 2020

| Year* | Number of point locations with observed non-compliance | Minimum number of tracks | Maximum number of tracks | Average number of tracks | Reference |
|---|---|---|---|---|---|
| 2008 | 6 | NA | NA | NA | BLM 2008 pp. 8–9. |
| 2009 | 3 | NA | NA | NA | BLM 2010 p. 5. |
| 2010 | 2 | 2 | 10+ | 2 | BLM 2011 pp. 12–13. |
| 2012 | 11 | 1 | 10+ | 7 | BLM 2012 p. 5. |
| 2013 | 10 | 1 | 10+ | 8 | BLM 2013 p. 5. |
| 2014 | 9 | 1 | 10+ | 5 | BLM 2015 p. 6. |
| 2015 | 8 | 1 | 10+ | 7 | BLM 2017 pp. 6–7. |
| 2016 | 6 | 1 | 10+ | 8 | BLM 2017 p. 8. |
| 2020 | 12 | 1 | 10+ | 8 | BLM 2020b pp. 7–8. |

*No data available for 2011, 2017, 2018. Minimum, maximum, and average number of tracks observed were not available for the 2008 and 2009 survey seasons.

By 2014, the number of known point locations of San Benito evening-primrose had grown to 500 with the majority occurring within the geologic transition zone habitat. Approximately half of those locations were protected from OHV use due to the restrictions imposed by the 2014 Resource Management Plan (BLM 2014, pp. 1–18; BLM 2015, pp. 7–16). By 2020, 666 point locations of San Benito evening-primrose had been mapped by the BLM (BLM 2020b, p. 25). The 666 point locations correspond to 79 occurrences consisting of 519 sub-occurrences and covering 63.2 acres (25.6 ha) (table 1, figure 1). Twenty-three occurrences (81 sub-occurrences) are located within the Serpentine ACEC and are effectively protected from OHV use due to the 2014 Resource Management Plan (BLM 2018, p. 33) (table 3). There are 36 occurrences (260 sub-occurrences) within BLM-managed land outside of the Serpentine ACEC. OHV use within the CCMA, but outside of the Serpentine ACEC, has been designated as ''limited,'' meaning that motorized use is restricted to highway-licensed vehicles and ATVs and utility task vehicles on designated routes only (BLM 2014, pp. 1–13—1–14). Forty-five occurrences (178 sub-occurrences) are known to occur on private land that is not subject to management by the BLM or other Federal agencies (table 3, table 4).

When the Recovery Plan criteria were written, there were 27 known occurrences: 23 were on land managed by the BLM, and 4 were on private property. Currently, there are 59 occurrences on BLM-managed land and 45 occurrences on private property. Protections for the occurrences on private land cannot be guaranteed; however, the occurrences on BLM lands are managed to protect San Benito evening-primrose from OHV use and other recreational activities.

TABLE 3—NUMBER OF OCCURRENCES, SUB-OCCURRENCES, AND ACREAGE OF MAPPED SAN BENITO EVENING-PRIMROSE (CAMISSONIA BENITENSIS) LOCATIONS BY LAND MANAGER

| | Number of occurrences | Number of sub-occurrences | Acres |
|---|---|---|---|
| BLM | 36 | 260 | 23.8 |
| ACEC | 23 | 81 | 12.7 |
| Private | 45 | 178 | 26.6 |

Occurrences consist of sub-occurrences (mapped polygons) within 0.25 mile of each other. Point locations are reported in the 2020 Annual Report (BLM 2020b p. 25). Acreage data are derived from the spatial extent of the mapped occurrences. Note that occurrences that encompass multiple property owners may be counted twice because of how the mapped data are nested.

The majority of the known occurrences and sub-occurrences occur within the geologic transition zone identified by the BLM as habitat in 2010 (table 4). Occurrences of San Benito evening-primrose within geologic transition zone habitat are assumed to be less likely to be affected by OHV recreation since OHV riders have historically preferred the terrain associated with alluvial terrace habitat (BLM 2010, p. 11). In summary, known occurrences and sufficient additional suitable habitat within each watershed unit throughout its range are protected from direct effects from OHV use and other recreational activities, fulfilling recovery criterion 2.

TABLE 4—NUMBER OF KNOWN OCCURRENCES AND SUB-OCCURRENCES BY LAND MANAGER AND HABITAT TYPE

| | Alluvial terrace habitat | | | Geologic transition zone habitat | | |
|---|---|---|---|---|---|---|
| | Number of occurrences | Number of sub-occurrences | Acres | Number of occurrences | Number of sub-occurrences | Acres |
| BLM | 17 | 104 | 6.7 | 19 | 156 | 17.2 |
| ACEC | 6 | 37 | 3.0 | 17 | 44 | 9.7 |
| Private | 10 | 26 | 0.6 | 35 | 152 | 26.0 |
| Total | 33 | 167 | 10.3 | 71 | 352 | 53.0 |

Occurrences consist of sub-occurrences (mapped polygons) within 0.25 mile of each other. Point locations are reported in the 2020 Annual Report (BLM 2020b p. 25). Acreage data are derived from the spatial extent of the mapped occurrences. Note that occurrences that encompass multiple property owners may be counted twice because of how the mapped data are nested.

*Criterion 3:* Currently occupied and suitable habitat for the species has been restored and maintained over an appropriate period of time, as informed by monitoring and research.

In the Recovery Plan, 20 years was identified as the appropriate period of time to conduct and evaluate the success of restoration activities. Twenty years was chosen to allow enough time for observations of natural and restored occurrences during non-drought years to be made in order to evaluate the stability of San Benito evening-primrose occurrences (USFWS 2006, pp. 53–54). Thirty-three years have passed since San Benito evening-primrose was listed by the Service as a threatened species. Restoration began prior to listing by using fencing to discourage disturbance by OHVs (Taylor 1990, pp. 24–36, 71). The BLM has continued to implement passive restoration measures such as installation of additional wire fencing and steel pipe barriers to reduce OHV trespass and signage to promote awareness of the natural resources (BLM 2018 pp. 50–56). Photopoint monitoring has demonstrated an increase in the amount of woody vegetation cover in previously open and disturbed areas. The increase in woody vegetation cover suggests that fencing and other barriers have been effective in reducing ground disturbance from OHV use prior to the temporary closure in 2008 and the permanent restrictions in 2014 (BLM 2020e, entire).

Seed of San Benito evening-primrose was introduced between 1990 and 1991 at six areas near existing point locations. At 5 of the reintroduction sites, 30,000 seeds were broadcast into areas that were each 2,153 $ft^2$ (200–300 $m^2$) in area. Sixty thousand seeds were broadcast into the sixth site (BLM 2013, Excel data; Taylor 1993, p. 14). Very few plants, relative to the amount of seed reintroduced, were observed (between 3 and 147 plants) in the years immediately following the seeding. The results of early seed introductions indicate that San Benito evening-primrose establishment from artificially sown seed is very low (Taylor 1993, p. 14). One area where seed was introduced, that did not previously have extant populations, has continued to have small numbers of individuals observed each year. The establishment of San Benito evening-primrose in an area where it did not previously occur, despite low numbers of individuals relative to number of seed introduced, led to the recommendation that seed introductions should be used as a tool for San Benito evening-primrose conservation and recovery (Taylor 1995, p. 7). Approximately 3,000 seeds were sown in 2008 and 2012 in areas where San Benito evening-primrose had not been observed but where potential habitat existed that could support new occurrences. The number of individuals at these areas have remained similarly low ranging from 0 to 320 individuals in a single year (BLM 2018, pp. 34–47).

Restoration of five staging areas located on stream terraces that were heavily degraded from OHV use and mining (prior to 1939) was completed in 2010 (BLM 2011, pp. 4–10). The staging areas were characterized by a mix of lack of vegetation, soil compaction, buried original soil surface, debris from facilities, and erosion on adjacent hillslopes. A total of 2.01 ac (0.81 ha) of San Benito evening-primrose habitat was restored. The BLM estimated that San Benito evening-primrose may recolonize restored areas within 5 years when seed is introduced following restoration. If seed is not added, recolonization through natural dispersal may take up to several decades (BLM 2020d, pp. 3–4). Annual counts of San Benito evening-primrose at each of the staging areas and associated sub-occurrences have indicated that the number of individuals in any given year fluctuates greatly (BLM 2018, pp. 34–47). Staging areas 1, 4, and 5 have relatively stable annual counts, while staging areas 2 and 3 have had more variable, and possibly slightly declining, annual counts.

The BLM has also undertaken efforts to improve watershed quality by identifying the most appropriate species and methods to restore streambanks (BLM 2011, pp. 10–12). While the immediate stream banks are not suitable habitat for San Benito evening-primrose, restoring natural hydrology and maintaining bank composition can reduce sedimentation and erosion in the watershed that indirectly supports the persistence of San Benito evening-primrose habitat. The BLM found that revegetation of degraded streambanks using sod of *Agrostis exarata* (spike bentgrass) was most effective. Additionally, six vehicle routes were closed and restored by removing access and ripping the compacted soil (BLM 2011 p. 10).

In summary, currently occupied and suitable habitat for the species has been restored and maintained over an appropriate period of time, as informed by monitoring and research, fulfilling recovery criterion 3.

*Criterion 4:* Population sizes have been maintained over a monitoring period that includes multiple rainfall cycles (successive periods of drought and wet years).

The Recovery Plan recommended a target average number of individuals for 27 occurrences of San Benito evening-primrose (USFWS 2006, pp. 54–58). The target counts were based on past observations of the number of individuals observed during favorable years and were considered to be approximate. Four of the 27 locations with a target number of individuals had an average annual count that met or exceeded the target levels between 1983 and 2017 (USFWS 2006, pp. 56–58; BLM 2018, pp. 34–35; USFWS Review of BLM reporting data). Five of the 27 locations had an annual average count that met or exceeded the target number of individuals when only years with normal precipitation are considered. We consider the average number of individuals because the number of individuals at any given site fluctuate

greatly from year to year causing single year counts to be inaccurate measures of the stability of the species (figure 2).

The total annual number of individuals for the same 27 sites has fluctuated around a mean of approximately 9,690 individuals since 1998 (Figure 2). The total number of individuals appears stable over time. The 5-year moving average suggests a stable number of individuals from 1998 to 2020. Although the target numbers have not been met for most of the 27 occurrences known at the time of the 2006 Recovery Plan, the Service determines that the recovery criterion is met because the number of individuals in those occurrences has remained stable around a 5-year moving average, and the number of occurrences has increased (population size has increased). Evaluating the trend of each of the 79 occurrences (666 point locations, see table 1) is not feasible because census data for the entirety of known point locations are not available.

The target number of individuals has not been met for 23 of the 27 occurrences with target criteria. However, the target numbers were estimates and the lack of a consistent decline in total annual counts suggest that, while the occurrences are not increasing in abundance of San Benito evening-primrose, they are not threatened with extinction. The lack of decline in number of individuals over a 27-year monitoring period and an increase in the number of known occurrences indicate that the criteria of maintaining population numbers over an appropriate period of time has been met.

*Criterion 5:* A post-delisting monitoring plan for the species has been developed.

Section 4(g)(1) of the Act requires us, in cooperation with the States, to implement a system to monitor effectively, for not less than 5 years, all species that have been recovered and delisted (50 CFR 17.11, 17.12). The purpose of this post-delisting monitoring is to verify that a species remains secure from risk of extinction after it has been removed from the protections of the Act. The monitoring is designed to detect the failure of any delisted species to sustain itself without the protective measures provided by the Act. If, at any time during the monitoring period, data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing under section 4(b)(7) of the Act. Section 4(g) of the Act explicitly requires us to cooperate with the States in development and implementation of post-delisting monitoring programs, but we remain responsible for compliance with section 4(g) and, therefore, must remain actively engaged in all phases of post-delisting monitoring. A post-delisting monitoring plan has been developed by the Service with input from the BLM, the sole Federal entity that manages land where San Benito evening-primrose occurs. Therefore, this criterion has been met.

*Summary of Recovery Criteria*

Based on the best available information, we conclude that the recovery criteria in the Recovery Plan have been achieved and the recovery goal identified in the Recovery Plan has been met for San Benito evening-primrose. Recovery criterion 1 has been met with research to increase the understanding of the extent of existing occurrences, the range of suitable habitat, the persistence of the seed bank, and analysis of the genetic variability across watersheds and habitat types. Recovery criterion 2 has been met with protection of known occurrences and sufficient additional suitable habitat within each watershed unit throughout its range. Recovery criteria 3 and 4 have been met through the closure of the Serpentine ACEC, restoration of degraded areas, and observed stability of 27 of the 79 occurrences over a period that included 18 years of normal rainfall over a 27-year period. Recovery criterion 5 has been met through the development of a post-delisting monitoring plan for the species in partnership with the BLM.

**Regulatory and Analytical Framework**

*Regulatory Framework*

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an ''endangered species'' or a ''threatened species,'' reclassifying species, or removing species from listed status. The Act defines an endangered species as a species that is ''in danger of extinction throughout all or a significant portion of its range,'' and a threatened species as a species that is ''likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' The Act requires that we determine whether any species is an ''endangered species'' or a ''threatened species'' because of any of the following factors:

(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.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects. We must consider these same five factors in delisting a species. We may delist a species according to 50 CFR 424.11(d) if the best available scientific and commercial data indicate that the species is neither endangered nor threatened for the following reasons: (1) The species is extinct; (2) the species does not meet the definition of an endangered species or a threatened species when considering the five factors listed above; or (3) the listed entity does not meet the statutory definition of a species. The same factors apply whether we are analyzing the species' status throughout all of its range or a significant portion of its range.

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions

and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term ''foreseeable future,'' which appears in the statutory definition of ''threatened species.'' Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term ''foreseeable future'' extends only so far into the future as the Services can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. ''Reliable'' does not mean ''certain''; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors. For San Benito evening primrose, we examined the impacts of the threats out to 2050 based on our climate change assessment so our foreseeable future is projected out approximately 30 years.

*Analytical Framework*

The 5-year review documents the results of our comprehensive biological status review for the species, including an assessment of the potential threats to the species. The review provides the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The 5-year review can be found at *https://www.regulations.gov* under Docket FWS–R8–ES–2019–0065. Where information in the 5-year review is out of date, we have provided updated information in this final rule.

**Summary of Biological Status and Threats**

Historical analyses and discussion of the threats to San Benito evening-primrose are detailed in the Recovery Plan (USFWS 2006, pp. 26–36) and 5-year review (USFWS 2009, pp. 10–18). An updated analysis and discussion follow here. Primary threats to San Benito evening-primrose identified in the listing rule included OHV use of occupied and potential habitat and gravel mining. Uncertainty about the reproductive capacity of the species and vandalism were also considered additional threats at listing. Vandalism was considered a threat due to the small population size and public resistance to listing the species under the Act. The resistance came from the OHV community perception that listing the species would inhibit their ability to continue recreating. However, vandalism was not believed to be significant with subsequent reviews of the species in the Recovery Plan and 5-year review and is not considered further in this final rule. Since listing, the Recovery Plan and 5-year review identified as additional threats: Soil loss and elevated erosion rates from OHV trails and staging areas, camping, facilities construction and maintenance, habitat alteration due to invasive species and/or natural vegetation community succession, climate change and the local effect on precipitation patterns and temperature, and stochastic events. The following sections provide a summary of the past, current, and potential future threats relating to San Benito evening-primrose.

*Off-Highway Vehicle Use*

Off-highway vehicle use of open serpentine barrens and alluvial terraces was considered the primary threat to San Benito evening-primrose when it was listed in 1985. Soil disturbance from OHVs increased soil loss, soil compaction, and could result in the physical removal of plants. Staging areas and camping associated with OHV use had similar negative impacts to the species and its habitat. Between 1985 and 2010, the BLM implemented a series of measures to reduce effects to known habitat and occurrences of San Benito evening-primrose through fencing of sensitive areas, signage, designation of specific open riding areas, and enforcement and management of designated OHV trails. In 2005, the BLM estimated 50,000 visitor-use days per year occurred within the CCMA (USFWS 2006, p. 27). OHV use decreased in 2008 following the release of an EPA report that found high levels of naturally occurring asbestos that posed a significant health risk to visitors within the Serpentine ACEC.

To address the EPA findings, the BLM issued new Management Plans and associated Records of Decision in 2014, which restricted OHV access by reducing the amount of open trails and restricting access to the Serpentine ACEC to 5 days per year per recreationalist through a permit system and a series of locked gates (BLM 2014, pp. 1–18). Currently, only highway-licensed vehicles are allowed within the Serpentine ACEC on designated roads and by permit, which is limited to 5 use-days per year per person. These restrictions on OHV use have effectively removed OHV impacts to San Benito evening-primrose. OHV non-compliance with fencing and trail restrictions has been monitored within lands managed by the BLM. Findings of non-compliance remain low compared to levels of use prior to closure (table 2).

Occurrences located on private property are not protected from OHV use, and occurrences on BLM land near private land are at greater risk of disturbance from OHV trespass. Under the current Resource Management Plan (BLM 2014, entire), because of its implementation of closures and restrictions, we do not consider OHV use to be a current threat or that it will become a threat to occurrences on BLM land in the foreseeable future. While BLM restrictions do not provide protection to occurrences on private land, the best available data on historical and current recreation levels do not indicate that the level of OHV use on private land will increase from current levels to levels that would threaten the persistence of the species in the foreseeable future.

*Mining*

The last commercial mining in the CCMA ceased extraction activities in 2002 (BLM 2018, p. 66). The BLM has acquired surface rights to 208 ha (520 ac) along the lower reaches of Clear Creek up to and including the confluence with the San Benito River. This acquisition protects habitat and occurrences of San Benito evening-primrose, but without having the mineral rights to the land, it cannot be considered fully under the control of the BLM (USFWS 2009, p. 13). The BLM decided in the 2014 Resource Management Plan that no mineral leasing or sales on public lands will occur within the Serpentine ACEC and that mineral leasing and sales on public

lands outside of the Serpentine ACEC will have ''no surface occupancy'' stipulations where occupied special status species habitat occurs (BLM 2014, pp. 1–36—1–37). With these requirements, and no active mining leases within suitable habitat and known occurrences, we conclude that mining is no longer a significant threat to San Benito evening-primrose and is not likely to become a threat in the foreseeable future.

Rock hounding (hobby of collecting rock and mineral specimens) within the CCMA persists as a recreation activity, although information on the amount and effect of rock hounding on San Benito evening-primrose is lacking. However, given the restricted vehicle access and relatively low impact of an individual user versus a commercial mining operation, we consider that effects to San Benito evening-primrose from rock hounding are negligible and are not likely to become a threat in the foreseeable future.

*Soil Loss and Elevated Erosion Rates*

Soil loss and erosion may occur naturally due to seasonal disturbances as would be expected by frost heaving, overland sheet flow from precipitation, unconsolidated soil, sparse vegetation, and flood events. Some natural disturbances benefit the species by promoting areas relatively free of dense vegetation, increasing water infiltration, and aiding in dispersal of the San Benito evening-primrose downstream or downslope from existing occurrences. Many of the threats presented under Factor A may be considered a ''disturbance'' to the habitat of the species, but this does not mean that they are beneficial. For example, the effects to soil from frost heaving and overland sheet flow are very different from those resulting from repeated use of OHVs. The BLM attempted to quantify the differences between the natural, or background, rates of soil loss and erosion, and those that result from OHV and highway vehicle use. The mean background soil loss in the Clear Creek Watershed was 8 yards$^3$ (yd$^3$) per acre per year (ac-year) (11 tons/ac-year) and that soil loss resulting from OHV open riding resulted in soil loss of 12 yd$^3$/ac-year (16 tons/ac-year) (PTI Environmental 1993, pp. 36–39). The erosion rate from roads was estimated at 59 yd$^3$/ac-year (80 tons/ac-year).

Increased erosion and elevated soil loss are indicative of loss of suitable habitat. The seed bank may be lost as soil erodes, and the remaining soil may become compacted, decreasing germination potential as well as water retention. Trails that form from repeated use on open slopes or terraces may collect and funnel water, creating runnels, which in turn increase erosion while drawing water away from adjacent areas (Brooks and Lair 2005, p. 7; Ouren et al. 2007, pp. 5–16). The BLM has recognized this issue and has attempted to enact minimization measures for soil loss and erosion. In the most recent Resource Management Plan, the BLM includes guidelines that call for road closures during extreme wet weather, prioritizing closed roads for restoration and reclamation, and establishing automated weather stations to monitor precipitation and soil moisture and requires approved erosion control strategies to be evaluated for any soil-disturbing activities on slopes of 20–40 percent (BLM 2014, p. 1–30). Presently, the threat of soil loss and erosion is limited to natural cycles, remnant effects of past land use, and roads (for which the above minimization measures apply). Considering that additional sub-occurrences of San Benito evening-primrose continue to be identified and remain viable within habitat that is more prone to erosion (upland slopes of the geologic transition zone habitat type), it is unlikely that natural rates of soil loss and erosion present a threat to the continued existence of the species and are not likely to do so in the foreseeable future.

*Facilities Construction and Maintenance*

The construction of the BLM Section 8 Administrative Site in 1988 and associated structures resulted in direct loss of San Benito evening-primrose and its habitat, although the species still occurs in the vicinity of the disturbance (USFWS 2009, pp. 12–13; BLM 2018, p. 34). The Section 8 Administrative Site was decommissioned in 2010 and replaced by the Clear Creek Administrative Site. The new administrative site was not constructed on occupied or potential habitat for San Benito evening-primrose, although the impacts resulting from the original disturbance remain (BLM 2018, p. 66). The old Section 8 Administrative Site is infrequently used and, at current levels of use, does not present a threat to the persistence of San Benito evening-primrose, as evidenced by the discovery of new sub-occurrences and potential habitat throughout the CCMA (BLM 2018, p. 66). No new facilities and construction projects are planned, and it is not likely that new projects in occupied or potential habitat will be proposed in the foreseeable future.

*Habitat Alteration Due to Invasive Species*

The serpentine-derived soils inhibit invasion from nonnative plant species where San Benito evening-primrose occurs. However, the habitat may still be degraded if invasion by nonnative species occurs on adjacent land. High densities of nonnative species may negatively influence existing or potential habitat for San Benito evening-primrose by providing a persistent threat of colonization. Yellow star thistle *(Centaurea solstitialis)* and tocalote *(C. melitensis)* have been actively controlled near occurrences of San Benito evening-primrose within the CCMA since 2005 (BLM 2018, p. 62). The BLM has identified prescribed fire followed by broadcast application of clopyralid, a broadleaf specific herbicide, as the most effective means of reducing the cover of invasive species threatening San Benito evening-primrose. The cover of yellow star thistle has been reduced by 95 percent in the Clear Creek drainage, and San Benito evening-primrose has expanded into the improved habitat (BLM 2018, p. 62). The natural buffer that the serpentine-derived soils provide, coupled with BLM's management of invasive species and the expansion of known sub-occurrences and potential habitat, make it unlikely that invasive species present a significant threat either now or into the foreseeable future to the persistence of San Benito evening-primrose. The abundance of invasive species will be monitored as part of the post-delisting monitoring plan. The post-delisting monitoring plan will suggest thresholds that will determine the necessary control efforts on federally managed land.

*Succession to Woody Shrub Community*

San Benito evening-primrose habitat is typically open and relatively free of high amounts of woody vegetation and canopy cover. Succession to a woody shrub community in habitat that presently or historically supported San Benito evening-primrose could result in increased canopy cover (potentially shading out San Benito evening-primrose) and increased competition for resources (lessening the success of establishment and survival) (Taylor 1990, p. 66). Photopoints initiated by the BLM in 1980 indicate that open serpentine barrens are less susceptible to encroachment by woody shrubs (typically chaparral species such as manzanita (*Arctostaphylos* spp.)) than alluvial terrace habitat. This is presumably due to the greater concentration of serpentine soils on the

open barrens compared to the more organic rich soils of the alluvial terraces.

The immediate effect of encroachment by woody vegetation would be to reduce, or possibly eliminate, known occurrences and potential habitat of San Benito evening-primrose through competition and alteration of habitat structure. It is possible that the seed bank, once established, is long lived enough that it may persist through cycles of vegetation community shifts due to natural events such as fires as has been observed at least once within the CCMA (BLM 2020d, p. 3). The BLM has estimated that seed may remain viable for 107 years in the presence of common co-occurring shrubs (BLM 2015, pp. 16–28).

San Benito evening-primrose has not been observed in the geologic transition zone habitat for as long a period of time as either alluvial terrace habitat or the open serpentine barrens. The rate of succession to woody vegetation is being monitored through photopoint monitoring by the BLM (BLM 2020e, entire). It is likely that the rate of succession to woody habitat is less within geologic transition zone habitat than alluvial terrace, but greater than the rate of succession compared to open serpentine barrens. Succession of plant communities is a natural process and may result in loss of current or potential habitat. However, the amount of new sub-occurrences that have been identified lessen the immediate risk to the existence of the species; therefore, succession to woody shrub community is not currently a species-level threat. No occurrences of San Benito evening-primrose have been extirpated due to succession of woody vegetation since monitoring began in 1980, and, because San Benito evening-primrose grows on serpentine soils, threats to the species from succession to woody vegetation is also unlikely to be a threat in the foreseeable future.

*Stochastic Events*

At the time of listing, only nine occurrences of San Benito evening-primrose were known within a relatively restricted range. The small number of occurrences increased the susceptibility of the species to extinction from a stochastic event, such as a fire, flood, drought, or other unpredictable event, because a single event had the capability to negatively impact all known occurrences at the same time. The vulnerability of the species to extinction from stochastic events has decreased as the number of known occurrences has increased to 79 occurrences (519 sub-occurrences or 666 point locations) occurring across multiple watersheds, and into a new habitat type (the geologic transition zone). The species' current known range is approximately 307 square miles, an area large enough that it is unlikely that a single stochastic event would be able to impact the species.

Within this broad range, approximately 260 ac (105 ha) is considered potential habitat (BLM 2018, p. 31), and 63.2 ac (25.6 ha) are known to be occupied. Despite the occupied area being relatively small, it is spread over a large geographic area across multiple habitat types and many occurrences, suggesting a low possibility of extinction from a single stochastic event. The presence of a long-lived and well-established seed bank further insulates San Benito evening-primrose from the possibility of extinction due to a single stochastic event. The land management practices of the BLM within the CCMA have promoted preserving and restoring San Benito evening-primrose habitat and the natural soil processes and hydrology of the watersheds it occurs within as well. Stochastic events are unlikely to threaten the species in the foreseeable future due to the current range of San Benito evening-primrose and number of known occurrences.

*Climate Change*

The terms ''climate'' and ''climate change'' are defined by the Intergovernmental Panel on Climate Change (IPCC). 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, whether the change is due to natural variability or human activity (IPCC 2014a, pp. 119–120). The effects of climate change are wide ranging but include alteration of historical climate patterns including storm frequency and severity, seasonal shifts in temperatures, and changing precipitation patterns. Globally, these effects may be positive, neutral, or negative for any given species, ecosystem, land use, or resource, and they may change over time (IPCC 2014b, pp. 49–54; IPCC 2018, pp. 9–12). Potential effects derived from climate change have consequences for the biological environment and may result in changes to the suitability of currently occupied habitat through increased drought stress, shortened growing seasons, and alteration of the historical soil and hydrologic cycles. The effects of these changes to San Benito evening-primrose and its habitat are not known, but we may reasonably infer potential effects from the globally anticipated changes. The State of California assessment on climate change provides a better estimate for the effects of climate change to areas occupied by San Benito evening-primrose.

California released its fourth climate change assessment in 2018 (Langridge 2018, entire). California's Fourth Climate Change Assessment uses downscaled versions of the global climate models used by IPCC to create localized predictions based on future emissions scenarios to provide relevant predictions for management and planning. The range of San Benito evening-primrose falls within the Central Coast region of California's fourth climate change assessment. In general, the region is expected to experience increasing minimum and maximum temperatures and slight increases in precipitation with significant increases in variability (Langridge 2018, p. 6). These expected trends are consistent within the range where San Benito evening-primrose occurs. The predicted increases in minimum temperature, maximum temperature, and precipitation are similar for both high (representative concentration pathway (RCP) 8.5) and low (RCP 4.5) emissions scenarios and across model variations (Cal-adapt 2020, p. NA; table 5). Data from weather stations within the range of San Benito evening-primrose indicate that the historical and/or modeled estimate of precipitation is high (by approximately 2–4 inches) and that the estimate of minimum temperature is low (by approximately 5 °F) (BLM 2020a, pp. 3, 9–10).

TABLE 5—CHANGES IN PRECIPITATION, MINIMUM AVERAGE TEMPERATURE, AND MAXIMUM AVERAGE TEMPERATURE FOR LOW AND HIGH EMISSION SCENARIOS COMPARED TO HISTORICAL AVERAGES THROUGHOUT THE RANGE OF SAN BENITO EVENING-PRIMROSE

| Precipitation (inches) | | Minimum average temperature (°F) | | Maximum average temperature (°F) | |
|---|---|---|---|---|---|
| Historical average | RCP 4.5 (RCP 8.5) | Historical average | RCP 4.5 (RCP 8.5) | Historical average | RCP 4.5 (RCP 8.5) |
| 20.2 | 23.5 (22.5) | 38.4 | 41.3 (41.9) | 70.0 | 72.9 (73.4) |

Reported values for the modeled futures are based on the average of the HadGEM2–ES (warmer and drier), CNRM–CM5 (cooler and wetter), and CanESM2 (average) models for running climate simulations. The RCP 4.5 scenario refers to a future scenario where emissions peak near 2040 and then decline, while RCP 8.5 refers to a scenario where emissions continue to rise strongly through 2050 and plateau near 2100. The historical average is based on the years 1950–2005 as reported by cal-adapt.org. The modeled values are estimates from the years 2020–2050. A user defined boundary was used and was based on a polygon that was drawn to encompass all areas where San Benito evening-primrose occurs.

Based on the state of California assessment of climate change, the IPCC data, taking into account known uncertainties with climate change projection, the effects of the predicted changes due to climate change to occurrences of San Benito evening-primrose are varied and possibly contradictory (*e.g.,* increased minimum temperatures may have both positive and negative effects). An increase in precipitation may provide additional water during the growing season, but the variability between seasons may result in long periods of drought followed by high-volume precipitation that may cause erosion. Increasing minimum temperatures may reduce the amount of days with frost, reducing seedling mortality but may also delay germination (BLM 2020a, pp. 6–7). Increasing maximum temperatures could result in increased stress for flowering individuals. Conversely, increased amounts of rain may promote increased germination and seedling success.

The BLM conducted a climate envelope analysis comparing the range of precipitation and temperature values that San Benito evening-primrose and two close relatives, *Camissonia contorta* and *C. strigulosa,* occupy and evaluating the precipitation and temperature range that San Benito evening-primrose would shift into under the future climate scenarios. Under current conditions, the San Benito evening-primrose occupies a small precipitation and temperature niche that overlaps with both *C. contorta* and *C. strigulosa* suggesting that those species may indicate the environmental tolerance of San Benito evening-primrose. Under the considered future climate scenarios the precipitation and temperature range would fall within the current known habitable range of *C. contorta* and *C. strigulosa* suggesting that the predicted changes in climate would be tolerable by San Benito evening-primrose (BLM 2020a, pp. 5–7, 14–15).

Shifts in community composition are likely to occur as a result of changes in California's climate and may impact the long-term suitability of currently occupied and potential habitat for San Benito evening-primrose. All California macrogroups of vegetation are expected to have moderate to high risk of vulnerability to climate change (Thorne et al. 2016, p. 1). This means that all vegetation communities are susceptible to portions of their current range becoming unsuitable. It is also possible that previously unsuitable areas for a given macrogroup will become suitable as physical parameters that were previously unfavorable become favorable. Vegetation communities migrating higher in elevation along temperature gradients or moving upland as sea levels rise along hydrological gradients are typical examples of this scenario. However, the ability of a vegetation macrogroup to migrate assumes that natural seed dispersal pathways are available, and that undeveloped land exists along dispersal pathways.

San Benito evening-primrose occurs within three macrogroups within San Benito and Fresno Counties: California foothill and valley forests and woodlands, chaparral, and California annual and perennial grassland. California foothill and valley forests and woodlands and chaparral are both ranked at moderate risk of vulnerability, and California annual and perennial grassland is ranked as moderate to high risk of vulnerability (Thorne et al. 2016, p. 3; table 6). Estimates of the percent of existing habitat that will become unsuitable, have no change, or become newly suitable based on low and high emissions scenarios are shown in table 6 based on data within Thorne et al. (2016, pp. 33–41, 114–122, 132–140).

TABLE 6—RESULTS OF SENSITIVITY AND ADAPTIVE CAPACITY MODELING AND THE RESULTING CHANGE IN SUITABILITY OF EXISTING HABITAT FOR THREE VEGETATION MACROGROUPS WITHIN WHICH SAN BENITO EVENING-PRIMROSE OCCURS

| Vegetation macrogroup | Mean vulnerability rank | Unsuitable | | No change | | Newly suitable | |
|---|---|---|---|---|---|---|---|
| | | Low (%) | High (%) | Low (%) | High (%) | Low (%) | High (%) |
| California foothill and valley forests and woodlands. | Moderate ..... | 24 | 59 | 41 | 76 | 11 | 34 |
| Chaparral ..... | Moderate ..... | 8 | 54 | 46 | 92 | 17 | 47 |
| California annual and perennial grassland. | Mid-High ..... | 16 | 48 | 52 | 84 | 10 | 52 |

Data from Thorne et al. 2016 pp. 3, 33–41, 114–122, 132–140.

Under both high and low emissions scenarios, currently suitable habitat for San Benito evening-primrose is lost due to changes in climate. Conversely, the species that compose the vegetation communities that are associated with San Benito evening-primrose are expected to have the capability to migrate into newly suitable habitat. The

primary concern, in regard to San Benito evening-primrose habitat, is the threat of an increase in woody vegetation as a response to climate change. However, San Benito evening-primrose is found in serpentine and serpentine-derived soils that are not likely to be affected by climate change in the foreseeable future. The edaphic (soil) conditions may restrain woody vegetation migration into areas currently occupied. While the soil type may mitigate habitat loss due to habitat conversion, it may also restrain the species from dispersing to areas where climatic conditions are more favorable for survival. The currently predicted changes in precipitation and climate do not indicate that the species may become endangered due to those changes in the foreseeable future.

*Existing Regulatory Mechanisms*

*State Protections*

San Benito evening-primrose is classified by the California Native Plant Society (CNPS) as 1B.1, indicating that the taxon is rare throughout its range and is generally endemic to California as well as having been reduced throughout its historical range. Species ranked by CNPS as 1B.1 meet the definition of threatened in the California Endangered Species Act as described in the California Fish and Game Code (CNPS 2018 Rare Plant Inventory website) and must therefore be considered during environmental analysis for California Environmental Quality Act (CEQA) documentation (CEQA 2018 Guidelines Section 15380). Environmental analysis for CEQA documentation may analyze impacts to the species and recommend protection and conservation measures.

*Federal Protections*

The BLM has regulations and policies that guide the management of natural resources on the public lands they manage. In particular, the Federal Land Policy and Management Act of 1976 provides for ''the management, protection, development, and enhancement'' of public lands managed by the BLM. This law directs the BLM to ''take any action necessary to prevent unnecessary or undue degradation of the lands'' during mining operations (43 U.S.C. 1732(b)). Certain mining operations, and certain other defined operations, require a plan of operations approved by the BLM (see 43 CFR part 3800, subpart 3809).

BLM may enact special rules to protect soil, vegetation, wildlife, threatened or endangered species, wilderness suitability, and other resources by immediately closing affected areas to off-road vehicles that are causing resource damage until the adverse effects are eliminated and measures are implemented to prevent recurrence (43 FR 8340–8364; March 1, 1978).

Two Executive Orders (E.O.) apply specifically to off-road vehicles on public lands: E.O. 11644 directs agencies to designate zones of off-road use that are based on protecting natural resources, the safety of all users, and minimizing conflicts among various land uses. The BLM and other agencies are to locate such areas and trails to minimize damage to soil, watershed, vegetation, or other resources, and to minimize disruption to wildlife and their habitats. Areas may be located in designated park and refuge areas or natural areas only if the head of the agency determines that off-road use will not adversely affect the natural, aesthetic, or scenic values of the locations. The respective agencies are to ensure adequate opportunity for public participation in the designation of areas and trails.

E.O. 11989 amends the previous order by adding the following stipulations: (a) Whenever the agency determines that the use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat, or cultural or historic resources of particular areas or trails on public lands, it is to immediately close the areas or trails to the type of off-road vehicle causing the effects until it determines that the adverse effects have ceased and that measures are in place to prevent future recurrence; and (b) each agency is to close portions of public lands within its jurisdiction to off-road vehicles except areas or trails designated as suitable and open to off-road vehicle use.

In 2001, the BLM published the National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands. This guiding document ensures consistent and positive management of environmentally responsible motorized OHV use on public lands. Detailed regulations are established in BLM's 2014 Resource Management Plan for the CCMA that provide for protections of San Benito evening-primrose. BLM's 2014 Resource Management Plan for the CCMA is in place until superseded. The restriction of OHV use within the CCMA and the Serpentine ACEC is based on concerns of health risks and will be unaffected by the delisting of San Benito evening-primrose. Currently, only highway-licensed vehicles are allowed within the Serpentine ACEC on designated roads and by permit, which is limited to 5 use-days per year per person, and within the CCMA trail riding is restricted to designated areas near Condon Peak (BLM 2014, p. 1–18).

While San Benito evening-primrose was listed under the Act, the BLM consulted with the Service on any activities it funds, authorizes, or carries out that may affect the species. The Act does not provide protection for listed plants on non-Federal lands, unless a person damages or destroys federally listed plants while in violation of a State law or a criminal trespass law. Where the species occurs on private lands, protections afforded by section 7(a)(2) of the Act are triggered only if there is a Federal nexus (*i.e.,* an action funded, permitted, or carried out by a Federal agency). If the species is delisted, the protections afforded by the Act would no longer apply. Even in the absence of the protections of the Act, adequate regulatory mechanisms are in place, such as the Federal Land Policy and Management Act of 1976, E.O. 11644, and E.O. 11989, to ensure the continued persistence of San Benito evening-primroses occurrences and suitable potential habitat, in light of the increased number of populations and decreased threats that the species experiences now relative to at the time of listing.

*Summary of Threats Analysis*

A very limited range, small number of occurrences, and direct and indirect threats from OHV use and mining and associated facilities and road maintenance were the primary threats to San Benito evening-primrose at the time of listing in 1985 (50 FR 5755–5759, February 12, 1985). OHV use continued to be a significant threat to San Benito evening-primrose until the temporary closure of the Serpentine ACEC in 2008. The 2014 Resource Management Plan permanently reduced the amount of exposure San Benito evening-primrose has to OHV recreation and has resulted in indirectly removing the most significant threat to the species, which was direct loss of individuals by OHV recreation and indirect loss of habitat and seed bank through erosion on slopes and soil compaction on alluvial terraces. The threat from mining was reduced by 2002 with the closure of the last commercial mine, and future threats from mining are unlikely based on BLM management actions listed in the 2014 Resource Management Plan for the CCMA. Habitat alteration from invasive species and succession to woody vegetation communities are not likely to threaten San Benito evening-primrose because invasive species and woody

vegetation communities are intolerant to serpentine soils. The significant increase in the number of known occurrences and the associated increase in range and the new habitat association greatly reduce the threat of stochastic events resulting in significant loss to the species. The predicted changes in temperature and rainfall by 2050 as a result of climate change do not indicate species-level threats to survival.

When individual threats that influence reproductive output, germination, and survival occur together, one threat may add to, or exacerbate, the effects of another, resulting in a disproportionate increase in threat to the species. When this occurs, we call the interactive effects synergistic or cumulative. The lack of current threats to San Benito evening-primrose reduce the possibility of synergistic or cumulative effects occurring, and, given the current range of the species, number of known occurrences, and likelihood of new occurrences to become known, synergistic and cumulative effects do not pose a significant population-level impact to San Benito evening-primrose at this time nor do we anticipate that they will in the future.

**Summary of Comments and Recommendations**

In the proposed rule published in the **Federal Register** on June 1, 2020 (85 FR 33060), we requested that all interested parties submit written comments on our proposal to delist the San Benito evening primrose by July 31, 2020. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. We did not receive any requests for a public hearing. All substantive information provided during the comment period has either been incorporated directly into this final rule or is addressed below.

During the comment period, we received comments from 10 individuals addressing the proposed rule, representing 9 public commenters and 1 partner review. Public comments are posted at *https://www.regulations.gov* under Docket No. FWS–R8–ES–2019–0065. Five public commenters supported the proposed rule with no additional analysis or revision requested. These comments are not further addressed. One public commenter supported the proposed rule but maintained a concern for vehicular threats. Two public comments were against the proposed rule but did not provide substantive information that could be evaluated or incorporated and are not addressed further. One public commenter was against the proposed rule and provided substantive information that is addressed below. The BLM provided partner review of the proposed rule and post-delisting monitoring plan in support of the proposed rule and provided additional information. BLM comments and new information have been incorporated into the text of the final rule. Public comments are addressed below.

*Public Comments*

(1) *Comment:* One commenter acknowledged recovery of San Benito evening primrose and concurred with the conclusions of the proposed rule but maintained a concern for changes to current OHV regulations.

*Our Response:* Changes to the regulation of OHV use of the Clear Creek Management Area and the Serpentine ACEC are governed by the BLM's 2014 Record of Decision. Changes in OHV use of these areas would initiate environmental review, and potential impacts and threats to San Benito evening primrose would be evaluated during that process. This concern is addressed under the discussion of *Existing Regulatory Mechanisms.*

(2) *Comment:* One commenter disagreed with the conclusions of the proposed rule based on evidence of continued OHV trespass of occupied areas, the potential for the reopening of the CCMA and the Serpentine ACEC, occurrences on private land without protections, and the adequacy of the post-delisting monitoring plan.

*Our Response:* Continued trespass has been documented by the BLM and was addressed in the proposed rule. The level of trespass shown and described in the comment, as well as updated trespass information provided by the BLM, have been incorporated into the final rule. Based on the available population data and analysis, and supporting documentation provided by the BLM, we conclude that the current level of trespass does not place the species in danger of extinction or becoming endangered in the foreseeable future. The number of additional occurrences of the species in areas unaffected by OHV use reduces the likelihood that OHV trespass is likely to lead to the extinction of the species. However, the Service acknowledges the potential for OHV use to result in negative effects to the species, and this issue is addressed in the post-delisting monitoring plan, developed in coordination with the BLM. The post-delisting monitoring plan will evaluate disturbance (from OHV use and other sources) in the context of the biology of the species. The post-delisting monitoring plan requires a reevaluation of the status of the species if negative trend thresholds are reached for aboveground abundance and seed bank size (see post-delisting monitoring plan).

Changes to the vehicular use of the CCMA and the Serpentine ACEC are governed by the BLM's 2014 Record of Decision. Changes in vehicular use of these areas would initiate environmental review, and potential impacts and threats to San Benito evening primrose would be evaluated during that process. This concern is addressed under the discussion of *Existing Regulatory Mechanisms.*

Many occurrences of San Benito evening primrose do occur on private land. However, the number of occurrences on public land where the conservation of the species is a management goal is large enough to warrant delisting because the species is not in danger of extinction now or in the foreseeable future.

**Determination of San Benito Evening-Primrose Status**

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of ''endangered species'' or ''threatened species.'' The Act defines an ''endangered species'' as a species that is ''in danger of extinction throughout all or a significant portion of its range,'' and a ''threatened species'' as a species that is ''likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' For a more detailed discussion on the factors considered when determining whether a species meets the definition of ''endangered species'' or ''threatened species'' and our analysis on how we determine the foreseeable future in making these decisions, see Regulatory and Analytical Framework, above.

*Status Throughout All of Its Range*

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we have assessed the best scientific and commercial information available regarding the past, present, and future threats faced by San Benito evening-primrose in this final rule. At the time of listing in 1985 (50 FR 5755–5759, February 12, 1985), San Benito evening-primrose was known from only nine occurrences within a very narrow range that were all subject to potential loss from the threats listed in Factors A through E.

Off-highway vehicle recreation (Factor A), the greatest persistent threat to the species, has been reduced to levels that no longer pose a significant threat of extinction to San Benito evening-primrose or loss of its habitat, due to the closure of the Serpentine ACEC and the restriction of OHV use within the CCMA but outside of the Serpentine ACEC. Most significantly, surveys by the BLM have shown that the species is much more wide-ranging and common than originally known and occurs across a broader range of habitat types. The number of known occurrences has increased from 9 to 79 and includes 666 mapped point locations. The range of the species is now known from three watersheds, and occupied habitat covers 63.2 acres (25.6 ha).

Our understanding of the ecology of the species has demonstrated that the species weathers periods of disturbance due to the persistence of a robust and long-lived seedbank that facilitates reestablishment and dispersal and buffers against stochastic events. Annual surveys of San Benito evening-primrose have demonstrated a large amount of interannual variation in numbers of individuals observed. The 27 occurrences monitored since 1998 have remained stable around a 5-year moving average. Further, the significant increase in the number of occurrences was not contemplated at the time the Recovery Plan was written, which focused recovery on increases to the 27 occurrences. The best available information indicates that Factors A, B, C, and E are not affecting the species and are unlikely to do so in the foreseeable future. The existing regulatory mechanisms in place are adequate to ensure the continued viability of San Benito evening-primrose occurrences and suitable potential habitat even if the species is delisted and protections under the Act are removed, because a majority of occurrences are managed on Federal land and are protected by a 2014 BLM Resource Management Plan and a BLM ACEC designation.

Based on the information presented in this status review, the recovery criteria in the Recovery Plan have been achieved, and the recovery goal identified in the Recovery Plan has been met for San Benito evening-primrose. Thus, after assessing the best available information, we conclude that San Benito evening-primrose is not in danger of extinction now or likely to become so within the foreseeable future throughout all of its range.

*Status Throughout a Significant Portion of Its Range*

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range.

Having determined that San Benito evening-primrose is not in danger of extinction or likely to become so within the foreseeable future throughout all of its range, we now consider whether it may be in danger of extinction or likely to become so within the foreseeable future in a significant portion of its range—that is, whether there is any portion of the species' range for which it is true that both (1) the portion is significant; and (2) the species is in danger of extinction now or likely to become so in the foreseeable future in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

In undertaking this analysis for San Benito evening-primrose, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered or threatened. San Benito evening-primrose occurs over 300 square miles, but occupies a relatively small amount of acreage (63.2 ac (25.6 ha) of occupied habitat). Genetic analysis indicated no differentiation in occurrences based on watershed or habitat and that there was no hybridization with a close relative. Every threat to the species in any portion of its range is a threat to the species throughout all of its range, and so the species has the same status under the Act throughout its narrow range. Therefore, we conclude that the species is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. This does not conflict with the courts' holdings in *Desert Survivors* v. *U.S. Department of the Interior,* 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018), and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d. 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not need to consider whether any portions are significant and therefore did not apply the aspects of the Final Policy's definition of ''significant'' that those court decisions held were invalid.

*Determination of Status*

Our review of the best scientific and commercial data available indicates that the San Benito evening-primrose does not meet the definition of an endangered species or a threatened species in accordance with sections 3(6) and 3(20) of the Act. Therefore, with this rule, we delist the San Benito evening-primrose from the List of Endangered and Threatened Plants.

**Effects of This Rule**

This final rule revises 50 CFR 17.12(h) by removing San Benito evening-primrose from the Federal List of Endangered and Threatened Plants. On the effective date of this rule (see **DATES**, above), the prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, will no longer apply to San Benito evening-primrose. Federal agencies will no longer be required to consult with the Service under section 7 of the Act in the event that activities they authorize, fund, or carry out may affect San Benito evening-primrose. There is no critical habitat designated for this species, so there will be no effect to 50 CFR 17.96.

**Post-Delisting Monitoring**

Section 4(g)(1) of the Act requires us to implement a monitoring program for not less than 5 years for all species that have been delisted due to recovery. Post-delisting monitoring (PDM) refers to activities undertaken to verify that a species delisted due to recovery remains secure from the risk of extinction after the protections of the Act no longer apply. The primary goal of PDM is to monitor the species to ensure that its status does not deteriorate, and if a decline is detected, to take measures to halt the decline so that proposing it as endangered or threatened is not again needed. If, at any time during the monitoring period, data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing under section 4(b)(7) of the Act. Section 4(g) of the Act explicitly requires us to cooperate with the States in development and implementation of post-delisting monitoring programs, but we remain responsible for compliance with section 4(g) and, therefore, must remain actively engaged in all phases of post-delisting monitoring. We also seek active participation of other entities that are expected to assume responsibilities for the species' conservation post-delisting.

*Post-Delisting Monitoring Overview*

A post-delisting monitoring plan was developed in partnership with the BLM. The post-delisting monitoring has been designed to verify that San Benito evening-primrose remains secure from risk of extinction after its removal from the Federal List of Endangered and Threatened Plants by detecting changes in population trends of known occurrences. The Act has a minimum post-delisting monitoring requirement of 5 years; however, if populations decline in abundance past the defined threshold in the post-delisting monitoring plan, or a substantial new threat arises, post-delisting monitoring may be extended or modified and the status of the species will be reevaluated.

Post-delisting monitoring will occur for 5 years with the first year of monitoring beginning the first spring following the publication of the final delisting rule. Post-delisting monitoring will annually census aboveground individuals within the 27 occurrences listed in the Recovery Plan, which are also the 27 occurrences that have been used to evaluate population trends in the final rule. Annual monitoring of disturbance frequency and intensity will also occur annually in conjunction with the annual census. Seed bank quantification will occur in years 2 and 5 to determine if there has been a loss of viable seed across the range of habitat types. Woody vegetation structure will be evaluated in year 5 and compared to data collected in 2020, the year the proposed rule was published, to evaluate potential changes in habitat suitability across habitat types and historical disturbance levels. A final post-delisting monitoring plan for the species can be found at *https://www.regulations.gov* under Docket No. FWS–R8–ES–2019–0065. We will work closely with our partners to maintain the recovered status of the San Benito evening-primrose and ensure post-delisting monitoring is conducted and future management strategies are implemented (as necessary) to benefit the San Benito evening-primrose.

**Required Determinations**

*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 (42 U.S.C. 4321 *et seq.*), need not be prepared in connection with determining a species' listing status 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). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

*Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. There are no Tribal lands associated with this final rule, and we did not receive any comments on the proposed rule from Tribes.

**References Cited**

A complete list of all references cited in this final rule is available on the internet at *https://www.regulations.gov* under Docket No. FWS–R8–ES–2019–0065, or upon request from the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

**Authors**

The primary authors of this final rule are the staff members of the Ventura Fish and Wildlife Office in Ventura, California, in coordination with the Pacific Southwest Regional Office in Sacramento, California.

**List of Subjects in 50 CFR Part 17**

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

**Regulation Promulgation**

Accordingly, we hereby 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.

**§ 17.12 [Amended]**

■ 2. Amend § 17.12, in paragraph (h), by removing the entry for ''*Camissonia benitensis*'' under Flowering Plants from the List of Endangered and Threatened Plants.

**Martha Williams,**

*Principal Deputy Director, Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service.*

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

### 50 CFR Part 17

**[Docket No. FWS–R8–ES–2019–0025; FF09E22000 FXES1113090FEDR 223]**

**RIN 1018–BD45**

## Endangered and Threatened Wildlife and Plants; Reclassification of Morro Shoulderband Snail From Endangered to Threatened With Section 4(d) Rule

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

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), are reclassifying the Morro shoulderband snail (*Helminthoglypta walkeriana*) from endangered to threatened under the Endangered Species Act of 1973, as amended (Act). This action is based on our evaluation of the best available scientific and commercial information, which indicates that the species' status has improved such that it is not currently in danger of extinction throughout all or a significant portion of its range, but that it is still likely to become so in the foreseeable future. We also finalize a rule issued under section 4(d) of the Act that provides for the conservation of the Morro shoulderband snail. In addition, we update the Federal List of Endangered and Threatened Wildlife to reflect the latest scientifically accepted taxonomy and nomenclature for the species as *Helminthoglypta walkeriana,* Morro shoulderband snail.

**DATES:** This rule is effective March 7, 2022.