

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

[Docket No. FWS–R1–ES–2021–0154;  
FF09E22000 FXES1113090FEDR 223]

RIN 1018–BE54

**Endangered and Threatened Wildlife and Plants; Removing Nelson’s Checker-Mallow From the Federal List of Endangered and Threatened Plants**

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

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to remove Nelson’s checker-mallow (*Sidalcea nelsoniana*) from the Federal List of Endangered and Threatened Plants. Our review of the best available scientific and commercial data indicates that the threats to Nelson’s checker-mallow have been eliminated or reduced to the point that the species no longer meets the definition of an endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). If we finalize this rule as proposed, the prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, would no longer apply to Nelson’s checker-mallow. We request information and comments from the public regarding this proposed rule and the draft post-delisting monitoring (PDM) plan for Nelson’s checker-mallow.

**DATES:** We will accept comments received or postmarked on or before June 27, 2022. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by June 13, 2022.

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

(1) *Electronically:* Go to the Federal eRulemaking Portal: <https://www.regulations.gov>. In the Search box, enter the docket number or RIN for this rulemaking (presented above in the document headings). Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment.”

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R1–ES–2021–0154, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on <https://www.regulations.gov>. This generally means that we will post any personal information you provide us (see **Information Requested**, below, for more information).

*Availability of supporting materials:* This proposed rule and supporting documents, including references cited, the 5-year review, the recovery plan, the species status assessment (SSA) report, and the draft PDM plan, are available at <https://www.regulations.gov> under Docket No. FWS–R1–ES–2021–0154.

**FOR FURTHER INFORMATION CONTACT:** Paul Henson, Project Leader, U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office, 2600 SE 98th Ave., Suite 100, Portland, OR 97266; telephone: 503–231–6179. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:**

**Information Requested**

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

We particularly seek comments concerning:

(1) Reasons we should or should not remove Nelson’s checker-mallow from the List of Endangered and Threatened Plants (*i.e.*, “delist” the species).

(2) New information on the historical and current status, range, distribution, and population size of Nelson’s checker-mallow.

(3) New information on the known and potential threats to Nelson’s checker-mallow.

(4) New information regarding the life history, ecology, and habitat of Nelson’s checker-mallow.

(5) Current or planned activities within the geographic range of Nelson’s checker-mallow that may have adverse or beneficial impacts on the species.

(6) The draft PDM plan for Nelson’s checker-mallow.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made “solely on the basis of the best scientific and commercial data available.”

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

If you submit information via <https://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <https://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <https://www.regulations.gov>.

Because we will consider all comments and information received during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species should remain listed as threatened, or we may conclude that the species should be reclassified from threatened to endangered.

*Public Hearing*

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place

of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the **Federal Register**. The use of these virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

### Supporting Documents

A species status assessment (SSA) team prepared an SSA report for Nelson's checker-mallow. The SSA team was composed of Service biologists; the SSA team also consulted with other experts on the species. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species.

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994), our August 22, 2016, Director's Memo on the Peer Review Process, and the Office of Management and Budget's December 16, 2004, Final Information Quality Bulletin for Peer Review (revised June 2012), we solicited independent scientific reviews of the information contained in Nelson's checker-mallow SSA report. We sent the SSA report to four independent peer reviewers and received no responses. The SSA report was also submitted to our Federal, State, municipal, Tribal, and conservation partners for scientific review. We received review from two partners, representing a Federal agency and a nonprofit conservation partner. In preparing this proposed rule, we incorporated the results of these reviews, as appropriate, into the final SSA report, which is the foundation for this proposed rule.

### Previous Federal Actions

On February 12, 1993, we published in the **Federal Register** (58 FR 8235) a final rule listing Nelson's checker-mallow as a threatened species. We finalized the Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington, which includes Nelson's checker-mallow, in 2010 (Service 2010, entire). We conducted a 5-year status review in 2012 and did not recommend reclassification (Service 2012, entire). On May 7, 2018, we announced in the **Federal Register** (83 FR 20088) our initiation of a subsequent 5-year review for the species. We completed the status review in 2021 and therein recommended delisting the species.

### Proposed Delisting Determination Background

Nelson's checker-mallow is an herbaceous perennial plant in the mallow family (Malvaceae). It produces 30 to 100 lavender to deep-pink flowers, arranged on an elongated, branched stalk. Plants produce short, thick, twisted rhizomes (creeping underground stems), as well as a system of fine roots extending from a taproot (a stout main root) (Service 2010, pp. F-3–F-4).

Nelson's checker-mallow is found in the Willamette Valley and the Coast Range of Oregon and Washington. It occupies a variety of prairie habitats and soil types, but is typically associated with open sites. In the Willamette Valley, the species occasionally occurs in the understory of Oregon ash (*Fraxinus latifolia*) woodlands or among woody shrubs, but more frequently occupies native prairie remnants, including those at the margins of sloughs, ditches, streams, roadsides, fence rows, drainage swales, and fallow fields (Glad et al. 1994, pp. 314–321). In the Coast Range, Nelson's checker-mallow populations typically occur in open, wet to dry meadows, in intermittent stream channels, and along margins of coniferous forests (Glad et al. 1987, pp. 259–262).

Once established, Nelson's checker-mallow plants are hardy; if plants become established at a site, they usually persist (Bartow 2020, pers. comm.). Their long taproot allows them to access subsurface water sources, and individual plants are long-lived (Dillon 2021, pers. comm.). In addition, regeneration from the taproot is possible after the above-ground and upper taproot portions of the plant have been removed (Dillon 2021, pers. comm.).

A thorough review of the taxonomy, life history, and ecology of Nelson's checker-mallow is presented in the SSA report, version 1.0 (Service 2021, entire).

### Recovery Criteria

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 Act's 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.

The Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington (recovery plan) divides the geographic area covered by included species into recovery zones, which provides a framework for recovering the species' historical ranges. Nelson's checker-mallow historically occupied seven recovery zones: SW Washington, Portland, Coast Range, Salem East, Salem West, Corvallis East, and Corvallis West. The following discussion provides an assessment of the species' status relative to the five delisting criteria outlined in the recovery plan.

### Delisting Criterion 1: Distribution and Abundance

The recovery plan specifies that the distribution of populations should reflect the extent of the species' historical geographic distribution to the extent practicable and identifies goals for a minimum number of populations and target number of plants per recovery zone, as follows: 5,000 plants in one population in the Portland recovery zone; 10,000 plants in two populations in the SW Washington, Salem East, and Corvallis East recovery zones; 15,000 plants in three populations in the Coast Range recovery zone; and 20,000 plants in four populations in the Salem West and Corvallis West recovery zones. The recovery plan further specifies that, with the exception of the Portland recovery zone, these targets may be achieved with a combination of at least two populations that number at least 2,000 individuals; and scattered independent populations must number at least 200 individuals. The rangewide delisting goal is 100,000 plants occurring in 20 populations.

Currently, a total of 334,968 individual plants are distributed across the historical range of the species. Considering only sites that meet the minimum threshold of 200 individuals required to be considered an independent population, there are 332,935 individual plants, found in 42 populations and distributed across six of the seven recovery zones.

Two recovery zones, Corvallis West and Salem West, meet both the abundance and distribution goals outlined in the recovery plan. Collectively, these two recovery zones contain 71 percent of the populations (30 populations) and 95 percent of the individual plants (313,662 plants) known to exist. A third zone, Salem East, contains 9,519 plants, occurring in three populations, essentially meeting the distribution and abundance goals of 10,000 plants distributed among two populations. Three of the remaining zones, Coast Range, Portland, and SW Washington, have the minimum number of populations but do not meet the recovery goals for abundance. The remaining zone, Corvallis East, does not have any populations that meet the minimum population threshold of 200 individual plants.

Rangewide, the abundance and distribution goal of 100,000 plants in 20 populations has been exceeded. Although the plants and populations are not distributed among recovery zones precisely as identified in the recovery plan, they are relatively well distributed throughout the historical range of the

species. Therefore, we conclude that the intent of this criterion, which is to minimize extinction risk by ensuring a sufficient number and distribution of plants and populations, has been satisfied.

### Delisting Criterion 2: Population Trend and Evidence of Reproduction

The recovery plan notes that the number of individuals in the population (or area of foliar cover) shall have been stable or increasing over a period of at least 15 years. Stable does not mean that the population size is static over time; over a period of 15 years, the number of individuals in the population may exhibit natural year-to-year variability, but the trend must not be declining. Populations must show evidence of reproduction by seed set or presence of seedlings.

Tracking trends for individual Nelson's checker-mallow sites and populations over time is confounded by irregular surveys and varying methodologies. However, the overall abundance of Nelson's checker-mallow has increased markedly since listing. Rangewide, the number of populations with greater than 200 plants, and the total number of plants, continues to increase. In addition, more sites have a large number of individuals than at the time of listing. At the time of listing in 1993, 19 sites had more than 100 plants, and only 5 sites had more than 1,000 plants. In 2012, 26 sites had more than 100 plants, and 4 had over 1,000 plants (Service 2012, pp. 17–19). Currently, 28 sites have more than 100 plants, and 24 sites have more than 1,000 plants (Service 2021, p. 18). These data indicate an overall positive trend since the time of listing, as well as since the 2012 5-year review. Additionally, natural reproduction is occurring on most sites and overall abundance is increasing throughout the recovery zones. Given that the number of individual plants and the number of large populations continue to demonstrate a positive trend, we conclude that this criterion has been met.

### Delisting Criterion 3: Habitat Quality and Management

The recovery plan specifies that sites supporting populations of Nelson's checker-mallow must meet three criteria related to habitat quality and management:

1. **Prairie quality.** Sites supporting populations of Nelson's checker-mallow must be managed for high-quality prairie habitat, which consists of a diversity of native, non-woody plant species; low frequency of aggressive,

nonnative plant species and encroaching woody species; and essential habitat elements for native pollinators.

2. **Security of habitat.** A substantial portion of the habitat for the populations should either be owned or managed by a government agency or private conservation organization that identifies maintenance of the species and the prairie ecosystem upon which it depends as the primary management objective for the site, or the site must be protected by a permanent or long-term conservation easement or covenant that commits present and future landowners to the conservation of the species.

3. **Management, monitoring, and control of threats.** Each population must be managed appropriately to ensure the maintenance or restoration of quality prairie habitat and to control threats to the species. Use of herbicides, mowing, burning, or livestock grazing in management should be implemented with appropriate methods and timing to avoid impacts to listed plant species. Management should be coordinated with adjacent landowners to minimize effects of pesticide drift, changes in hydrology, timber harvest, or road/utility maintenance. Species that may hybridize with Nelson's checker-mallow should be managed as appropriate to avoid contact with these taxa. Other potential threats relating to scientific research, overcollection, vandalism, recreational impacts, or natural herbivory/parasitism should be successfully managed so as not to significantly impair recovery of the species. Management and monitoring plans must be approved by the Service and should include standardized monitoring and performance criteria that will be used to assess the plans' effectiveness following implementation and to allow for adaptive management, as necessary. Management plans should include a focus on protecting habitat heterogeneity within protected sites and across a range of elevations and aspects to buffer the potential effects of climate change.

We can gauge the degree to which this criterion has been met by considering the management and ownership of sites that contain Nelson's checker-mallow. Of sites that have greater than 200 plants and, therefore, meet the definition of an independent population, 38 have formal management plans that address habitat quality and threats. Similarly, 26 populations are in public ownership and thus are considered protected; one additional site is owned and protected by a nongovernmental conservation organization, while 11 privately owned

sites are protected by conservation easements. Four Nelson's checker-mallow sites have no protection and lack management plans. Together, these four sites account for less than 1 percent of the total number of Nelson's checker-mallow plants. That a majority of sites known to support Nelson's checker-mallow are managed in accordance with a formal management plan and are protected by virtue of ownership or conservation easement ameliorates concerns associated with the quality, security, and threat to prairie habitat. Therefore, we conclude that this recovery criterion has been met.

#### Delisting Criterion 4: Genetic Material Is Stored in a Facility Approved by the Center for Plant Conservation

The recovery plan specifies that stored genetic material in the form of seeds must represent the species' geographic distribution and genetic diversity through collections across the full range of the species. Collections from large populations are particularly important as reservoirs of genetic variability within the species.

Nelson's checker-mallow seeds are currently stored at four separate repositories. The majority of stored seeds are located at the Corvallis Plant Materials Center (PMC) operated by the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture (USDA) in Corvallis, Oregon. Approximately 408 kilograms (900 pounds) of seeds, or about 112,500,000 seeds, are stored at this facility. Seeds in this collection were sourced primarily from production fields, which are maintained specifically to produce seed, and are used for habitat restoration, population augmentation, and out-planting throughout the range of the species. In addition, approximately 29,000 seeds are stored at the Rae Selling Berry Seed Bank at Portland State University in Portland, Oregon. This collection was sourced from Lane, Linn, Benton, Marion, Polk, Yamhill, and Tillamook Counties in Oregon, and Lewis County in Washington. A third, smaller collection of Nelson's checker-mallow seeds is held at the Miller Seed Vault, at the University of Washington's Botanical Gardens in Seattle, Washington. Approximately 705 seeds from locations in Washington are stored there. In addition to storage in these three regional repositories, a subset of seed from the Rae Selling Berry Seed Bank and the Miller Seed Vault has been sent to the National Laboratory for Genetic Resource Preservation at Colorado State University in Fort Collins, Colorado. Both the Rae Selling

Berry Seed Bank and Colorado State University facility are certified by the Center for Plant Conservation. Collectively, stored seed represents the geographic range of Nelson's checker-mallow, and part of this stored seed is in Center for Plant Conservation-certified facilities. Therefore, we conclude that this criterion has been met.

#### Delisting Criterion 5: Post-Delisting Monitoring Plans and Agreements to Continue Post-Delisting Monitoring Are in Place and Ready for Implementation at the Time of Delisting

The recovery plan specifies that monitoring of populations following delisting will verify the ongoing recovery of the species, provide a basis for determining whether the species should be again placed under the protection of the Act, and provide a means of assessing the continuing effectiveness of management actions.

A draft PDM plan for Nelson's checker-mallow has been developed that outlines an approach to monitoring Nelson's checker-mallow for a period of 6 years after the species is delisted. It addresses the current status of the species and provides details associated with monitoring methods and implementation, including site selection, data analysis, monitoring schedules, and reporting expectations. It also describes potential outcomes in the context of how secure the species remains after delisting. In addition, the draft PDM plan outlines roles and responsibilities and estimates associated costs. The draft PDM plan is available at Docket No. FWS-R1-ES-2021-0154 on <https://www.regulations.gov> for review and comment (see **ADDRESSES**).

### 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. 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 consider these same five factors in delisting a species (50 CFR 424.11(c) and (e)).

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 species' expected response 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 we 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.

#### *Analytical Framework*

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent our decision on whether the species should be proposed for removal from the List of Endangered and Threatened Plants (“delisted”). However, it does provide 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 following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R1–ES–2021–0154 on <https://www.regulations.gov>.

To assess Nelson’s checker-mallow viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events

(for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species’ ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species’ viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the species’ life-history needs. The next stage involved an assessment of the historical and current condition of the species’ demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species’ responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

#### **Summary of Biological Status and Threats**

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species’ current and future condition, in order to assess the species’ overall viability and the risks to that viability.

#### *Ecological Needs*

Populations of Nelson’s checker-mallow usually occupy open habitats that are free from encroachment of trees and shrubs. In the absence of disturbance to set back succession, prairie habitat is subject to woody species encroachment, gradually transitioning into shrub or woodland habitat. Periodic disturbance, such as fire or fall mowing, are necessary to maintain the open, high-light prairie habitats that Nelson’s checker-mallow populations thrive in. Resilient Nelson’s checker-mallow populations need a sufficient number of individuals to withstand stochastic events and disturbances. The minimum viable population size for Nelson’s checker-mallow is not identified. However, the Recovery Plan specifies that

independent populations should number at least 200 individuals (Service 2010, pp. IV–20) which provides a basis for evaluating population status.

For Nelson’s checker-mallow to be considered viable, the species must be able to withstand catastrophic events and adapt to environmental changes. This can be achieved with a sufficient number of resilient populations distributed across its geographic range and representing the range of ecological settings in which the species is known to exist. The minimum number of populations required for Nelson’s checker-mallow has not been determined. However, distribution and abundance goals laid out in the Recovery Plan (Service 2010, pp. IV–35–IV–36) and described in the *Recovery Criteria* section, above, provide a benchmark for evaluating the species.

#### *Factors Influencing the Species*

At the time of listing in 1993, the primary threats to Nelson’s checker-mallow were habitat loss due to land-use conversion for agriculture, competition from invasive plants, and roadside management activities. Other factors identified as potentially affecting prairie habitat were woody encroachment, hydrological alteration, recreational use, and trampling. Planned construction and expansion of a reservoir on Walker Creek (a tributary to the Nestucca River) was identified as a future threat as associated inundation would result in the loss of many plants, including the largest population of the species known to exist at the time. The listing rule (58 FR 8235; February 12, 1993) also noted the potentially negative effects of overcollection for scientific and horticultural purposes, predation by weevils, and small population size; some inadequacies in regulatory mechanisms were also identified. Subsequent to listing, climate change and hybridization were identified as potential threats to the viability of Nelson’s checker-mallow.

We considered all of these threats when considering whether the species continues to warrant protection under the Act. The threat of inundation never materialized; the proposed reservoir was not constructed, given the designation of Walker Creek as part of Oregon’s State Scenic Waterway program in 1992, and as part of the National Wild and Scenic Rivers program in 2019 (Oregon Department of Parks and Recreation 2021). We previously determined that overcollection does not occur to such a degree that it has a population-level effect and that regulatory mechanisms are adequately reducing the effects of threats that could act at a population

scale (Service 2012, pp. 22–28). Weevil predation occasionally impacts individual plants and may locally affect some populations. However, it is seasonal in nature and unpredictable, and we did not find that it occurs at spatial and temporal scales large enough to affect the overall status of the species.

Many small populations of Nelson's checker-mallow remain distributed throughout the species' range. However, the number of large populations has increased significantly since the species was listed in 1993. Based on our assessment, presently 24 sites have more than 1,000 plants. This represents a significant improvement relative to the time of listing, when only five sites had more than 1,000 plants (Service 2012, pp. 17–19). Therefore, we conclude that small population size no longer puts the species at risk of extinction. The potential for hybridization among species of the same genus remains present. However, we found that the best available data indicates that hybridization does not pose a threat to the overall status of the species. Additional discussion of these threats is available in the recovery plan (Service 2010, pp. II–30–II–31; chapter III entire) and in the 2012 5-year review (Service 2012, pp. 22–28).

The stressors identified as having a population-level effects, and therefore included in our assessment of current and future condition, are habitat-related stressors and climate change. The loss, degradation, and fragmentation of prairie habitats have cascading effects that result in smaller population sizes, loss of genetic diversity, reduced gene flow among populations, destruction of population structure, and increased susceptibility to local population extirpation caused by environmental catastrophes. Collectively, this contributes to reduced viability through reductions in resiliency, redundancy, and representation. Climate change acts primarily through changes in habitat quality. The discussion below details the causes and consequences of these stressors on Nelson's checker-mallow.

#### Alteration of Natural and Human-Mediated Disturbance Processes

Change in community structure due to plant succession has been a serious long-term stressor to Nelson's checker-mallow. Habitats occupied by this species contain native grassland species, as well as numerous introduced taxa, and are prone to transition to a later seral stage of vegetative development. The natural transition of prairie to forest in the absence of disturbance such as fire can lead to the loss of Nelson's checker-mallow sites (Service 2012, p.

24). However, active management of habitat through mowing and prescribed burning is effective in reducing Nelson's checker-mallow's exposure to this stressor.

#### Habitat Conversion to Agricultural and Urban Use

Agricultural and urban development has modified and destroyed prairie habitats, resulting in fragmented, widely distributed patches (Service 2012, p. 24). Urban development in particular results in permanent loss of habitat and is of special concern where existing prairie habitat exists adjacent to urban areas (Service 2010, p. III–2). The greatest habitat losses due to land conversion are historical, although periodic additional losses of habitat on private lands may occur. Exposure of Nelson's checker-mallow populations to this stressor is mitigated by protections associated with public land ownership, conservation measures described later in this document, and State regulations requiring mitigation and restoration of degraded habitat.

#### Invasion by Nonnative Plants

Habitats occupied by Nelson's checker-mallow contain a mix of native and nonnative species. As described above, alteration of disturbance processes results in woody encroachment of prairie habitats. Nonnative woody species have been of particular concern, as they can rapidly proliferate and degrade open prairie sites (Service 2012, p. 24). In addition, nonnative, thatch-forming grasses may effectively limit recruitment (Institute for Applied Ecology (IAE) 2017, p. 1). Although invasion by nonnative plants remains a primary stressor to Nelson's checker-mallow populations, management practices including mowing, burning, and shrub removal are an effective approach to mediating these effects.

#### Climate Change

In the Pacific Northwest, temperature increases of 3 to 6 degrees Celsius (°C) (5.4 to 10.8 degrees Fahrenheit (°F)) are predicted by the end of the 21st century (Bachelet et al. 2011, p. 414). Although winter precipitation is predicted to increase, increased summer temperatures are expected to cause increased evapotranspiration, resulting in reduced growing season soil moisture (Bachelet et al. 2011, p. 414) and ultimately affecting prairie habitat quality. Detailed quantitative estimates of the effects of these conditions on Nelson's checker-mallow populations are not available. However, vulnerability assessments show the

species to be moderately vulnerable to the effects of climate change when simulations from four "bookend" global circulation models and three emission scenarios are aggregated (Steel et al. 2011, p. 91).

In order for the species to be resilient to changing environmental conditions and remain viable into the future, maintenance of large populations in heterogenous habitats across the range of the species is required (Service 2010, p. IV–6). Management activities that maintain open prairie habitats, including mowing, burning, and shrub removal, have resulted in an increase in the number of large populations throughout the range of the species. As described below, the majority of Nelson's checker-mallow sites are managed in accordance with conservation programs that ensure maintenance of prairie conditions and promote the existence of viable Nelson's checker-mallow populations into the future.

#### Conservation Efforts and Regulatory Mechanisms

Despite permanent habitat loss and modification, habitat restoration and protection projects have been implemented on both public and private lands throughout the range of Nelson's checker-mallow. These projects offset some of the permanent habitat losses and, as a result, Nelson's checker-mallow habitat is increasing (Bartow 2020, pers. comm.). The Wetland Reserve Program and other Farm Bill programs administered by the USDA's NRCS have been widely implemented in the Willamette Valley. Other programs, such as the Service's Partners for Fish and Wildlife program and the Act's section 10 programs (*i.e.*, safe harbor agreements and habitat conservation plans), are also available to landowners. These programs are focused on habitat restoration and protection and have contributed significantly to improving the status of Nelson's checker-mallow. These gains are particularly evident in the Corvallis West and Salem West recovery zones.

Rangewide, the majority of sites known to support Nelson's checker-mallow benefit from some type of conservation measure, by virtue of ownership and/or habitat management agreements. These conservation measures offer benefits to the species well into the future. For instance, of 66 sites, 44 are owned by a public entity, which offers indefinite protection from prairie habitat conversion to other uses. Fifty-seven sites are managed in accordance with the conservation programs described above, which

ensure maintenance of prairie conditions required by Nelson's checker-mallow. The terms of these agreements vary, but they are typically valid for 10 to 30 years, with some extending into perpetuity. Collectively, these management regimes ensure habitat protections at a decades-long scale for most sites.

#### *Current Condition*

We assessed the current condition of Nelson's checker-mallow by using the best available information to estimate resiliency, redundancy, and representation. We sourced data for this analysis primarily from the Threatened and Endangered Plant Geodatabase (version 12/31/2019), developed by the Institute for Applied Ecology under a cooperative agreement with the Service for the purposes of tracking the status of species listed under the Act in the Willamette Valley. Additional data were compiled from supplementary reports (IAE 2019), location-specific records, and other information in our files. We use the term "site" rather than "population" to refer to our analytical units throughout our current and future conditions analyses to avoid confusion; the recovery plan defines an independent population as one that contains more than 200 individual plants, but we evaluated sites of all sizes.

#### *Resiliency*

Resiliency, the ability of populations to withstand stochastic events, is commonly determined as a function of metrics such as population size, growth rate, or habitat quality and quantity. We evaluated the current resiliency of Nelson's checker-mallow populations on the basis of abundance, as well as measurable habitat characteristics that represent the habitat-related stressors discussed above. The four specific metrics we included in our assessment of population resiliency (abundance, prairie habitat condition, site management, and site protection) are discussed in more detail below. A complete description of our analytical approach to current conditions is available in the SSA report. Abundance was scored based upon the total number of plants within a site, based on the most recent survey. Sites were scored as 1 (Low: Fewer than 200 plants), 2 (Moderate: 200–1,999 plants), or 3 (High: Equal to or more than 2,000 plants). These categorical thresholds correspond to recovery goals, which state that recovery targets may be achieved with a combination of at least two populations that number at least 2,000 individuals and that scattered

independent populations must number at least 200 individuals.

Prairie habitat condition is a measure of overall habitat quality and was calculated using four distinct habitat metrics that are likely to influence population resiliency: Percent woody cover, percent native cover, native plant richness (number of unique species present), and invasive plant cover. For each site where data on these criteria are available, we assigned a score of 1 (Poor), 2 (Fair), or 3 (Good) for each habitat metric. We then determined overall prairie habitat condition for each site by averaging individual habitat metric scores. Additional detail about scoring categories for each individual metric is available in the SSA report.

Site management reflects the potential for prairie habitat degradation due to natural succession in the absence of natural and anthropogenic disturbance regimes. Site management may also be influential in mediating the effects of climate change through the maintenance of large populations in heterogeneous habitats, and distributed across the range of the species. To account for existing site management that serves to offset these stressors, we assigned each site a score of 1 (Poor: Not managed for prairie conditions or unknown), 2 (Fair: Generally managed for prairie conditions but no management plan in place), or 3 (Good: Managed for prairie conditions with a management plan in place).

Site protection is a measure of the potential for losing Nelson's checker-mallow sites to agricultural and urban development. We used site ownership and the existence of conservation agreements to assess how well each site is protected from development, assigning each site a score of 1 (Poor: Private ownership with no conservation easement or similar program), 2 (Fair: Private ownership with conservation easement or similar program), or 3 (Good: Public ownership or private conservation organization ownership).

To estimate resiliency for each site, we calculated a condition score by averaging the scores for abundance, mean prairie habitat condition, site management, and site protection. We weighted management twice as much as the other factors due to its relative importance to long-term population resiliency (Service 2010, p. IV–5). Based on overall scores, current condition of each site was classified as high (score of greater than or equal to 2.5), moderate (score of 1.75–2.49), or low (score of less than 1.75).

Currently, we know of 66 sites containing Nelson's checker-mallow. Thirty-one of these sites (47 percent) are

in high condition, while 29 of them (44 percent) are in moderate condition. Rangewide, only 6 sites (9 percent) are in low condition. These results demonstrate relatively high resiliency across the range of Nelson's checker-mallow.

#### *Redundancy*

Redundancy is defined as a species' ability to withstand catastrophic events and is determined as a function of the number of populations, as well as their distribution and connectivity. The historical distribution of populations of Nelson's checker-mallow is largely unknown. Throughout its range, Nelson's checker-mallow is restricted to remnant prairie habitats that are highly fragmented due to a history of land conversion and natural succession following alterations to disturbance cycles. However, since the time of listing, habitat restoration, reintroductions, and habitat protection have collectively improved the status of the species. Among the 66 known sites, 334,968 plants are distributed across six of the seven recovery zones, demonstrating overall good redundancy.

#### *Representation*

Representation refers to the ability of a species to adapt to change, and is based upon considerations of geographic, genetic, ecological, and niche diversity. Because we lack information about the genetic diversity of the species, we rely on geographical and ecological diversity in our assessment of representation. Populations of Nelson's checker-mallow are currently distributed in six of the seven recovery zones and occur in both the Willamette Valley and in the Coast Range. The species occupies a range of prairie sites with various soil textures and moisture levels and occurs in a wide range of plant communities including meadows, marshes, wetlands, riparian/tree shrub forests, and disturbed areas. This indicates that the species has the capacity to adapt to a variety of environmental conditions and has good representation.

#### *Future Viability*

To assess the future viability of Nelson's checker-mallow, we considered the factors that will influence the species in the foreseeable future. We define the foreseeable future as 25 to 50 years. This interval was chosen because it encompasses the length of time over which we conclude we can make reliable predictions about the anticipated effect of climate change. In addition, this period of time is sufficient to observe population trends

for the species, based on its life-history characteristics. It also captures the terms of many of the management plans and conservation easements that are in effect at Nelson's checker-mallow sites.

We determined that, in the future, Nelson's checker-mallow will continue to be influenced by the factors that have historically influenced and are currently influencing the species, albeit at different relative rates. Therefore, in our analysis of future viability, we considered habitat-related changes and climate change. We considered the specific sources of habitat loss, degradation, and fragmentation (alteration of natural and human-mediated disturbance processes, habitat conversion to agricultural and urban use, and invasion by nonnative plants) in light of ongoing conservation support, including habitat management and site protection.

We make several assumptions about ongoing conservation support in the foreseeable future. Support for the conservation of Nelson's checker-mallow has been high among government agencies, nongovernmental conservation organizations, and some private landowners. We assume that priority recovery and management actions for the species will continue at approximately the current pace and that the species will continue to benefit from this ongoing conservation support. We base this assumption on the inclusion of Nelson's checker-mallow in a recovery plan that includes several other listed plants and insects, and that emphasizes restoration and maintenance of prairie habitat for the benefit of numerous species.

Management of existing sites for the restoration or maintenance of open prairie conditions is expected to continue. All of the protected sites have some level of management plan. These management plans vary in scope and complexity across ownerships, but all provide at least a basic level of habitat management that will benefit Nelson's checker-mallow. We anticipate that efforts to formalize new management plans where they do not currently exist, and to update existing management plans in response to changing conditions, will continue. Again, we base this assumption on the fact that prairie habitat is managed for multiple species, some of which are listed as endangered or threatened species under the Act. This provides an impetus for continued formalized management of

these sites and maintenance of Nelson's checker-mallow habitat.

The majority of Nelson's checker-mallow sites are protected through ownership by public agencies or nongovernmental conservation organizations, or through conservation easements. We assume that sites owned by public agencies or conservation organizations will remain so owned. We also assume that conservation easements will continue to provide protections where they currently exist, given that the terms typically range from 30 years to perpetuity. Ongoing efforts to protect additional sites through land acquisitions or enrollment in conservation easements are expected to continue and may result in the protection of additional sites. Although sites not protected by virtue of ownership or conservation easement may be at risk due to development in the future, these sites are in the minority and their status is reflected in our analysis.

#### Resiliency

To assess the future viability of Nelson's checker-mallow, we considered a single scenario where we assumed that climate change will result in a dramatic reduction in abundance across the species' range but site management and protection will remain intact, as discussed above. We then reassessed population condition, applying the same methodology used for assessing current condition.

Published assessments do not provide detailed quantitative estimates of the effects of climate change on Nelson's checker-mallow populations. In order to evaluate the effects of climate change on individual sites, we characterized a worst-case future scenario in terms we could use in our analysis of future condition. In consultation with species experts and conservation partners, we defined the worst-case scenario as one where increased mortality and decreased recruitment culminate in a 50 percent reduction in abundance at all sites. We consider this a worst-case scenario because a 50 percent reduction represents the upper boundary of plausibility; the actual effects of climate change on population sizes are likely to be more moderate. Nevertheless, assuming a 50 percent reduction provides a generous margin of error if the assumptions described above are violated. We acknowledge that uniform response across the species' range is not

likely, and that some populations may fare better than others under future conditions. However, this approach serves to demonstrate future viability under challenging future conditions.

In the scenario described above, resiliency declined only modestly, with 60 sites remaining in high or moderate condition (see Figure 1, below). The number of sites in high overall condition decreased from 31 to 25, relative to current condition, while the number of sites in moderate condition increased from 29 to 35. Sites experiencing reduced condition are relatively well distributed throughout the range of the species, with one site occurring in the Coast Range recovery zone, three sites occurring in the Corvallis West recovery zone, one site occurring in the Portland recovery zone, and one site occurring in the Salem West recovery zone. The number of sites in overall low condition (six sites) does not change in our foreseeable future.

These changes in overall future condition are driven by changes in abundance. In our future scenario, six additional sites fall below 200 individual plants and, therefore, receive a low score for abundance. Sites with low abundance are more vulnerable to stochastic events and carry a higher risk for extirpation in the future. However, the relative importance of site management and protection in guarding against habitat loss and maintaining resiliency is reflected in the relatively modest downward shift in overall future condition, relative to current condition (see Figure 2, below).

#### Redundancy

Our analysis of future condition indicates that redundancy will be maintained in the foreseeable future; 66 extant sites will remain well distributed throughout the current known range of the species. Consequently, no major changes in the species' ability to withstand catastrophes in the future is expected.

#### Representation

The distribution of extant Nelson's checker-mallow sites does not change under the parameters of our future condition analysis. Consequently, changes in ecological diversity are not projected to materialize as a result of climate change, and the species is likely to continue to occupy prairie habitat throughout its range and retain its adaptive capacity.



### Nelson's Checker-mallow Populations

Future Condition of Current Distribution

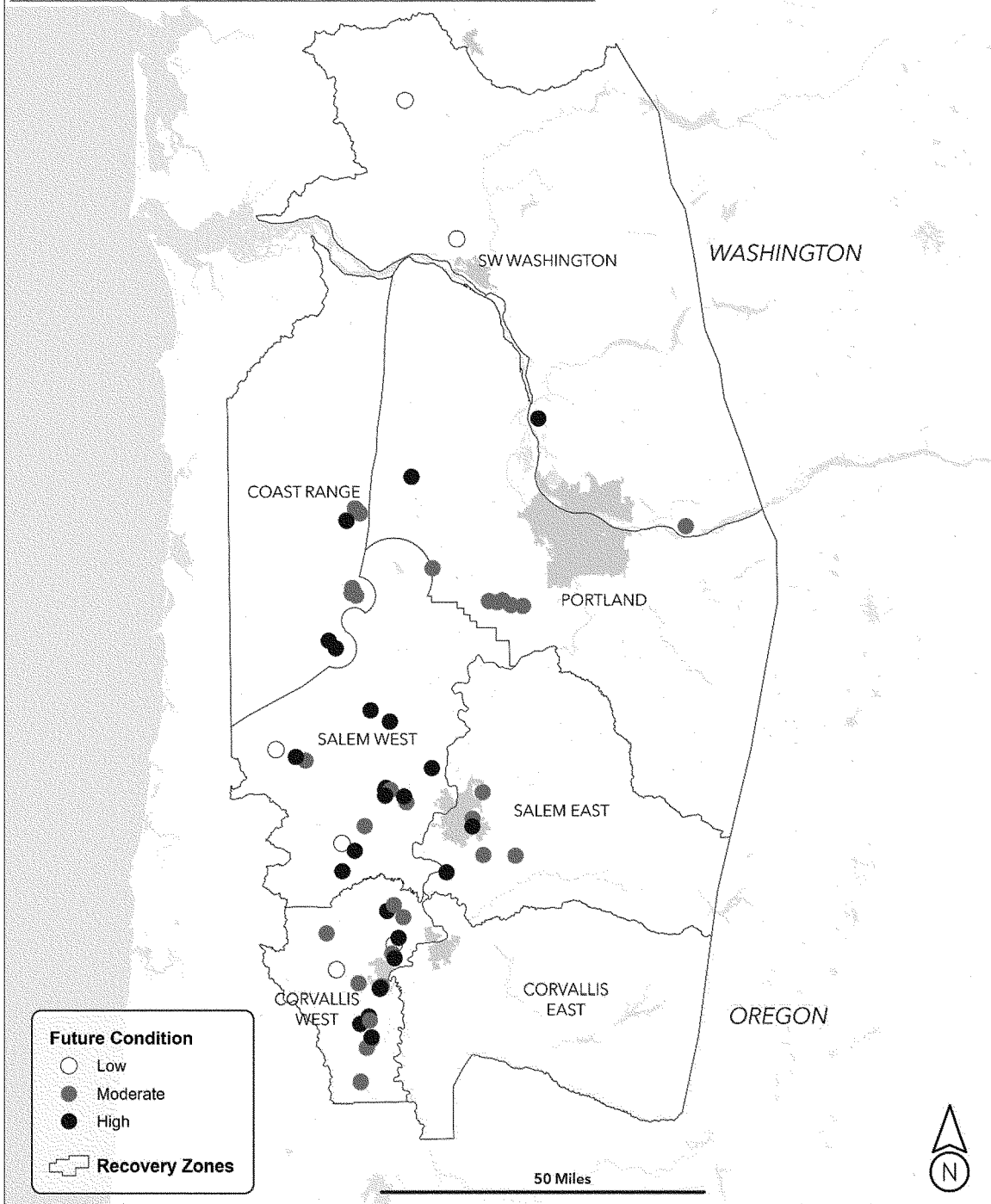


FIGURE 1. Overall future condition of Nelson's checker-mallow sites.

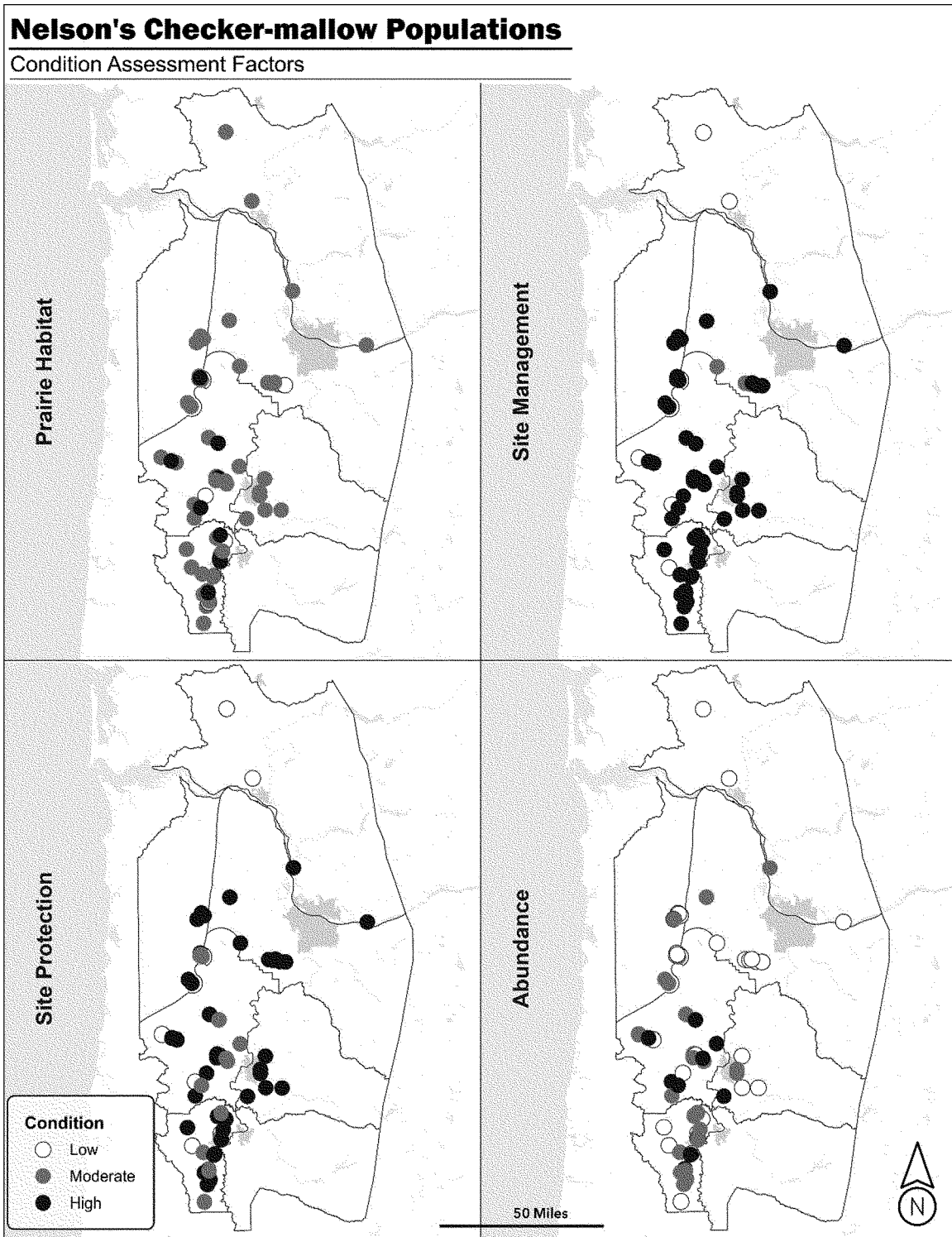


FIGURE 2. Future condition of Nelson’s checker-mallow sites, by individual assessment metric.

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Collectively, our analysis of the resiliency, redundancy, and representation demonstrates that in 25 to 50 years, the viability of Nelson’s checker-mallow will not be significantly reduced. We note that, by using the SSA framework to guide our analysis of the

scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize

the current and future condition of the species. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then accumulates and evaluates the effects of all the factors

that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

#### **Determination of Nelson's Checker-Mallow's 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 an endangered species or a 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 an endangered species or a threatened species and our analysis on how we determine the foreseeable future in making these decisions, please see Regulatory and Analytical Framework, above.

#### *Status Throughout All of Its Range*

After evaluating the threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we found that the primary drivers of the status of Nelson's checker-mallow have been habitat loss, degradation, and fragmentation due to alteration of natural and human-mediated disturbance processes that maintain open prairie habitat, land conversion to agricultural and urban use, and invasion by nonnative plants. The best available information does not indicate that habitat loss due to inundation (Factor A), overcollection (Factor B), predation (Factor C), small population size (Factor E), or hybridization (Factor E) are threats to the viability of the species. To summarize, the threat of inundation never materialized as the proposed reservoir was not constructed; overcollection does not occur to such a degree that it has a population-level effect; weevil predation does occasionally impact individual plants and may locally affect some populations, but it does not occur at spatial and temporal scales large enough to affect the overall status of the species; many small populations of Nelson's

checker-mallow remain distributed throughout the species' range, but the number of large populations has increased significantly since the species was listed; and the potential for hybridization among other species in the same genus remains present, but does not pose a threat to the overall status of the species. A variety of regulatory mechanisms adequately reduce the effects of any threats that act at a population scale (Factor D).

The habitat-related threats other than inundation identified above as drivers of Nelson's checker-mallow status are still present on the landscape. However, their magnitude and scope have decreased from historical levels and have been offset by a variety of management and conservation measures in the nearly 30 years since Nelson's checker-mallow was listed. Active maintenance of prairie habitat through mowing and prescribed burning has demonstrably reduced the threat posed by alteration of disturbance processes and associated woody encroachment (Factor A). The threat of invasive plants (Factor A) has also been significantly reduced as a result of active management. Rangeland, formalized management plans exist for 57 of the 66 sites known to contain Nelson's checker-mallow, a number that is expected to remain relatively constant into the foreseeable future. Similarly, 60 Nelson's checker-mallow sites are either in public ownership, have been acquired by nongovernmental conservation organizations, or are enrolled in conservation easement programs (Factor D), which has substantially reduced the risk of habitat and population losses due to land-use conversion (Factor A). The number of sites protected from conversion to agricultural or urban use is expected to remain relatively constant in the future. In sum, despite the continued presence of habitat-related threats on the landscape, advances in site management and protection have led to a significant reduction in threats and overall improvement in the status of the species since listing.

When Nelson's checker-mallow was listed, we estimated that the species occurred at 48 sites distributed among five population centers (historically interbreeding populations). Only five sites contained more than 1,000 individuals, and 30 percent of the known individuals of the species were threatened with inundation due to the planned construction of a dam. Currently, 334,968 individual plants are distributed across the historical range of the species. They occur at 66 sites, 24 of which have at least 1,000 Nelson's

checker-mallow plants. Our analysis of current condition, based on abundance, habitat quality, site management, and site protection, shows that 60 of those sites are in either moderate or high condition, indicating relatively high resiliency. The sites are distributed among six of the seven recovery zones and occur in varied geographical and ecological settings, demonstrating overall good redundancy and representation.

Subsequent to listing, climate change and its potential to negatively affect prairie habitat was identified as a potential threat to Nelson's checker-mallow. We considered the potential consequences of climate change on the species and evaluated a worst-case future scenario that included a 50 percent reduction in the size of all known populations across the range of the species. Even in the face of such a severe population reduction, the species retained appreciable levels of resiliency, redundancy, and representation, with only six sites showing a reduction in resiliency and with geographical and ecological distribution fully maintained.

We recognize that some habitat-related threats remain present and that they have ongoing impacts to Nelson's checker-mallow. We acknowledge that the specific effects of climate change on Nelson's checker-mallow and its habitat are uncertain but may have a negative impact. However, we found that current and expected patterns in site protection and habitat management are sufficient to prevent affects to the species such that it would meet the Act's definition of an endangered species or a threatened species. Thus, after assessing the best available information, we determine that Nelson's checker-mallow is not in danger of extinction now or likely to become so in 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 in the foreseeable future throughout all or a significant portion of its range. Having determined that Nelson's checker-mallow is not in danger of extinction or likely to become so in the foreseeable future throughout all of its range, we now consider whether it may be in danger of extinction or likely to become so in 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 Nelson’s checker-mallow, 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.

For Nelson’s checker-mallow, we considered whether the threats are geographically concentrated in any portion of the species’ range at a biologically meaningful scale. We examined the following threats: habitat loss, degradation, and fragmentation due to alteration of natural and human-mediated disturbance processes that maintain open prairie habitat, land conversion to agricultural and urban use, and invasion by nonnative plants; and climate change.

The threat of habitat loss from alteration of disturbance processes, land-use conversion, and invasion of nonnative plants has decreased in all portions of the species’ range since the time listing, due to land protection efforts and active habitat management. Although these residual threats influence the species variably across its range, there is no portion of the range where there is currently a concentration of threats at a biologically meaningful scale, relative to other areas of the range. In the foreseeable future, climate change may interact synergistically with other threats to negatively affect habitat quality. We acknowledge that uniform response across the species’ range is not likely, and that some populations may fare worse than others under future conditions. However, the best available information does not indicate that any portion of the species’ range will deteriorate disproportionately in the foreseeable future. We anticipate that any negative consequence of co-occurring threats will be successfully addressed through the same active management actions that have contributed to the ongoing recovery of Nelson’s checker-mallow and that are expected to continue into the future.

We found no concentration of threats in any portion of the Nelson’s checker-mallow range at a biologically meaningful scale. Therefore, no portion

of the species’ range can provide a basis for determining that the species is in danger of extinction now or likely to become so in the foreseeable future in a significant portion of its range, and we find 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 available scientific and commercial information indicates that Nelson’s checker-mallow 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, we propose to remove the Nelson’s checker-mallow from the List of Endangered and Threatened Plants.

#### **Effects of This Rule**

This proposed rule, if made final, would revise 50 CFR 17.12(h) by removing Nelson’s checker-mallow from the Federal List of Endangered and Threatened Plants. The prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, would no longer apply to this species. Federal agencies would 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 Nelson’s checker-mallow. There is no critical habitat designated for this species, so there would be no effect to 50 CFR 17.96.

#### **Post-Delisting Monitoring**

Section 4(g)(1) of the Act requires us, in cooperation with the States, to implement a monitoring program for not less than 5 years for all species that have been delisted due to recovery. 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.

We are proposing to delist Nelson’s checker-mallow based on our analysis in the SSA report, expert opinions, and conservation actions taken. Since delisting would be, in part, due to conservation actions taken by stakeholders, we have prepared a draft PDM plan for Nelson’s checker-mallow. The draft PDM plan discusses the current status of the taxon and describes the methods proposed for monitoring if we delist the taxon. The draft PDM plan: (1) Summarizes the status of Nelson’s checker-mallow at the time of proposed delisting; (2) describes frequency and duration of monitoring; (3) discusses monitoring methods and potential sampling regimes; (4) defines what potential triggers will be evaluated to address the need for additional monitoring; (5) outlines reporting requirements and procedures; (6) proposes a schedule for implementing the PDM plan; and (7) defines responsibilities. It is our intent to work with our partners towards maintaining the recovered status of Nelson’s checker-mallow. We will seek public and peer reviewer comments on the draft PDM plan, including its objectives and procedures (see **FOR FURTHER INFORMATION CONTACT** and Information Requested, above), with the publication of this proposed rule.

#### **Required Determinations**

##### *Clarity of the Rule*

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

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

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

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

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

*Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. We do not believe that any Tribes would be affected if we adopt this rule as proposed. There are currently no Nelson's checker-mallow sites on Tribal lands, although some sites may lie within the usual and accustomed places for Tribal collection and gathering of resources. We welcome input from potentially affected Tribes on this proposal.

**References Cited**

A complete list of references cited in this rulemaking is available on the internet at <https://www.regulations.gov> and upon request from the Oregon Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

**Authors**

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Oregon Fish and Wildlife Office.

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

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

**Proposed Regulation Promulgation**

Accordingly, we propose to amend 50 CFR 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 “*Sidalcea nelsoniana*” under FLOWERING PLANTS from the List of Endangered and Threatened Plants.

**Martha Williams,**

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

[FR Doc. 2022–09106 Filed 4–27–22; 8:45 am]

**BILLING CODE 4333–15–P**

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Parts 223 and 224**

[Docket No. 220421–0103]

RTID 0648–XR121

**Endangered and Threatened Wildlife; 90-Day Finding on a Petition To List the Tope Shark as Threatened or Endangered Under the Endangered Species Act**

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

**ACTION:** 90-Day petition finding, request for information, and initiation of status review.

**SUMMARY:** We, NMFS, announce a 90-day finding on a petition under the Endangered Species Act (ESA) to list the tope shark (*Galeorhinus galeus*) as a threatened or endangered species and to designate critical habitat concurrent with the listing. We find that the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Therefore, we are commencing a review of the status of

the tope shark to determine whether listing under the ESA is warranted. To support a comprehensive status review, we are soliciting scientific and commercial data regarding this species.

**DATES:** Scientific and commercial data pertinent to the petitioned action must be received by June 27, 2022.

**ADDRESSES:** You may submit comments on this document, identified by NOAA–NMFS–2022–0048 by the following method:

- **Electronic Submissions:** Submit all electronic public comments via the Federal eRulemaking Portal. Go to <https://www.regulations.gov> and enter NOAA–NMFS–2022–0048 in the Search box. Click on the “Comment” icon, complete the required fields, and enter or attach your comments.

**Instructions:** Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on [www.regulations.gov](http://www.regulations.gov) without change. All personal identifying information (e.g., name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous).

Interested persons may obtain a copy of the petition online at the NMFS website: <https://www.fisheries.noaa.gov/national/endangered-species-conservation/petitions-awaiting-90-day-findings>.

**FOR FURTHER INFORMATION CONTACT:** Lisa Manning, NMFS Office of Protected Resources, (301) 427–8466, [lisa.manning@noaa.gov](mailto:lisa.manning@noaa.gov).

**SUPPLEMENTARY INFORMATION:**

**Background**

On February 15, 2022, we received a petition from the Center for Biological Diversity and Defend Them All Foundation to list the tope shark, *Galeorhinus galeus*, as a threatened or endangered species under the ESA and to designate critical habitat concurrent with the listing. The petition asserts that *G. galeus* is threatened by four of the five ESA section 4(a)(1) factors: (1) Present and threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial and recreational purposes; (3) inadequacy of existing regulatory mechanisms; and (4) other natural or manmade factors. In addition to requesting that we analyze whether the