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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R6-ES-2016-0013]

[FXES11130900000C6-178-FF09E30000]

RIN 1018-BB41

Endangered and Threatened Wildlife and Plants; Removing *Astragalus desereticus* (Deseret Milkvetch) From the Federal List of Endangered and Threatened Plants

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and 12-month petition finding; request for comments.

SUMMARY: The best available scientific and commercial data indicate that threats to *Astragalus desereticus* (Deseret milkvetch) identified at the time of listing in 1999 are not as significant as originally anticipated and are being adequately managed. Therefore, the species no longer meets the definition of an endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). Consequently, we, the U.S. Fish and Wildlife Service (Service), propose to remove (delist) *Astragalus desereticus* from the Federal List of Endangered and Threatened Plants (List). This determination is based on a thorough review of all available information, which indicates that this species' population is much greater than was known at the time of listing in 1999 and that threats to this species have been sufficiently minimized. This document also serves as the 12-month finding on a petition to remove this species from the List. We are seeking information, data, and comments from the public on the proposed rule to remove the *Astragalus desereticus* from the List.

DATES: We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. 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 the **FOR FURTHER INFORMATION CONTACT** section by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: You may submit written comments on the proposed rule and the draft post-delisting monitoring plan by one of the following methods:

- *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Search box, enter Docket No. FWS–R6–ES–2016–0013, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on the blue “Comment Now!” box. If your comments will fit in the provided comment box, please use this feature of <http://www.regulations.gov>, as it is most compatible with our comment review procedures. If you attach your comments as a separate document, our preferred file format is Microsoft Word. If you attach multiple comments (such as form letters), our preferred formation is a spreadsheet in Microsoft Excel.

- *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-6-ES-2016-0013; U.S. Fish and Wildlife Service; MS: BPHC; 5275 Leesburg Pike, Falls Church, VA 22041-3803.

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

Document availability: This proposed rule and supporting documents, including a copy of the draft post-delisting monitoring plan referenced throughout this document, are available on <http://www.regulations.gov> at Docket No. FWS-R6-ES-2016-0013. In addition, the supporting file for this proposed rule will be available for public inspection, by appointment, during normal business hours at the Utah Ecological Services Field Office; 2369 Orton Circle, Suite 50; West Valley City, Utah 84119, telephone: 801-975-3330. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800-877-8339.

FOR FURTHER INFORMATION CONTACT: Larry Crist, Field Supervisor, telephone: 801-975-3330. Direct all questions or requests for additional information to: DESERET MILKVETCH QUESTIONS, U.S. Fish and Wildlife Service; Utah Ecological Services Field Office; 2369 Orton Circle, Suite 50; West Valley City, Utah 84119. Individuals who are hearing-impaired or speech-impaired may call the Federal Relay Service at 800-877-8337 for TTY assistance.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, if a species is determined no longer to be threatened or endangered throughout all or a significant portion of its range, we are required to promptly publish a proposal in the *Federal Register* and make a determination on our proposal within 1 year. Removing a species from the List can only be completed by issuing a rule.

This document proposes delisting *Astragalus desereticus*. This proposed rule assesses the best available information regarding status of and threats to the species.

The basis for our action. Under the Act, we can determine that a species is an endangered or threatened species based on any one or more of five factors or the cumulative effects thereof: (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 *Astragalus desereticus* no longer meets the definition of an endangered or threatened species under the Act.

We will seek peer review. We will seek comments from independent specialists to ensure that our designation is based on scientifically sound data, assumptions, and analyses. We will invite these peer reviewers to comment on our listing proposal. Because we will consider all comments and information received during the comment period, our final determination may differ from this proposal.

Information Requested

Public Comments

We want any final rule resulting from this proposal to be as accurate as possible. Therefore, we invite tribal and governmental agencies, the scientific community, industry, and other interested parties to submit comments or recommendations concerning any aspect of this proposed rule. Comments should be as specific as possible. We particularly seek comments concerning:

(1) Reasons why we should or should not remove *Astragalus desereticus* from the List of Endangered and Threatened Plants (*i.e.*, “delist” the species) under the Act;

(2) New biological or other relevant data concerning any threat (or lack thereof) to this species (for example, those associated with climate change);

(3) New information on any efforts by the State or other entities to protect or otherwise conserve the species;

(4) New information concerning the range, distribution, and population size or trends of this species;

(5) New information on the current or planned activities in the habitat or range that may adversely affect or benefit the species; and

(6) Information pertaining to the requirements for post-delisting monitoring of *Astragalus desereticus*.

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, may not meet the standard of information required by section 4(b)(1)(A) of the Act (16 U.S.C. 1531 et seq.), which directs that determinations as to whether any species is an endangered or threatened species must be made “solely on the basis of the best scientific and commercial data available.”

To issue a final rule to implement this proposed action, we will take into consideration all comments and any additional information we receive. Such communications may lead to a final rule that differs from this proposal. All comments, including commenters’ names and addresses, if provided to us, will become part of the supporting record.

You may submit your comments and materials concerning the proposed rule by one of the methods listed in **ADDRESSES**. Comments must be submitted to <http://www.regulations.gov> before 11:59 p.m. (Eastern Time) on the date specified in **DATES**. We will not consider hand-delivered comments that we do not receive, or mailed comments that are not postmarked, by the date specified in **DATES**.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. If you provide personal identifying information in your comment, 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.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours at the U.S.

Fish and Wildlife Service, Utah Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Public Hearing

Section 4(b)(5)(E) of the Act provides for one or more public hearings on this proposed rule, if requested. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by the date shown in **DATES**. We will schedule public hearings on this proposal, if any are requested, and places of those hearings, as well as how to obtain reasonable accommodations, in the Federal Register at least 15 days before the first hearing.

Peer Review

In accordance with our policy, “Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities,” which was published on July 1, 1994 (59 FR 34270), we will seek the expert opinion of at least three appropriate and independent specialists regarding scientific data and interpretations contained in this proposed rule. We will send copies of this proposed rule to the peer reviewers immediately following publication in the *Federal Register*. We will ensure that the opinions of peer reviewers are objective and unbiased by following the guidelines set forth in the Director’s Memo, which updates and clarifies Service policy on peer review (U.S. Fish and Wildlife Service 2016). The purpose of such review is to ensure that our decisions are based on scientifically sound data, assumptions, and analysis. Accordingly, our final decision may differ from this proposal.

Previous Federal Actions

In 1975, the Smithsonian Institution prepared a report on plants considered to be endangered, threatened, or extinct. On July 1, 1975, we published a notice in the *Federal Register* accepting the Smithsonian report as a petition to list those taxa named, including *Astragalus desereticus* (40 FR 27823). On June 16, 1976, we published a proposed rule to designate approximately 1,700 vascular plants, including *Astragalus desereticus*, as endangered pursuant to section 4 of the Act (41 FR 24523). On December 10, 1979, we published a notice of withdrawal for species that had not had a final rule published, including *Astragalus desereticus* (44 FR 70796). On December 15, 1980, we published a revised notice of review for native plants designating *Astragalus desereticus* as a category 1 candidate species (taxa for which we had sufficient information to support preparation of listing proposals); *Astragalus desereticus* was also identified as a species that may have recently become extinct (45 FR 82480). In 1981, a population of *Astragalus desereticus* was re-discovered. On November 28, 1983, we published a revised notice of review in which *Astragalus desereticus* was included as a category 2 candidate species for which additional information on distribution and abundance was needed (48 FR 53640). That designation was maintained in two subsequent notices of review (50 FR 39526, September 27, 1985, and 55 FR 6184, February 21, 1990). Following additional surveys, the species was reclassified as a category 1 candidate on September 30, 1993 (58 FR 51144). On February 28, 1996, we ceased using category designations and included *Astragalus desereticus* as a candidate species (61 FR 7596). A final rule listing *Astragalus desereticus* as threatened published in the *Federal Register* on October 20, 1999 (64 FR 56590); the rule was effective November 19, 1999. The

final listing rule included a determination that the designation of critical habitat for *Astragalus desereticus* was not prudent.

On July 5, 2005, the Center for Native Ecosystems, Forest Guardians, and the Utah Native Plant Society filed a complaint in the U.S. District Court for the District of Columbia challenging our October 20, 1999, determination that designating critical habitat was not prudent due to the lack of benefit to *Astragalus desereticus* (*Center for Native Ecosystems, Forest Guardians, and Utah Native Plant Society v. Gale Norton* (05–CV–01336–RCL)). In response to a stipulated settlement agreement, on January 25, 2007, we published an advanced notice of proposed rulemaking stating that designating critical habitat would not be beneficial to the species and recommending removal of the species from the List of Endangered and Threatened Plants because threats to the species identified in the final listing rule were not as significant as earlier believed and were managed such that the species was not likely to become in danger of extinction throughout all or a significant portion of its range in the foreseeable future (72 FR 3379).

In 2011, we completed a 5-year review of the species to evaluate its status and determined that threats to the species either were not as significant as we had anticipated or had failed to develop; consequently, we recommended delisting (U.S. Fish and Wildlife Service 2011, entire). On October 6, 2015, we received a petition (Western Area Power Administration 2015) to delist the species based on our 2007 recommendation to remove the species from the List of Endangered and Threatened Plants and supported by additional surveys and by recommendations to delist in our 2011 5-year review for the species (72 FR 3379, January 25, 2007; U.S. Fish and Wildlife Service 2011, p. 22). On March 16, 2016, we published a notice of petition findings and

initiation of status reviews for 29 species, including *Astragalus desereticus*, which found that the petition presented substantial information indicating that delisting may be warranted (81 FR 14058). This proposed rule presents our conclusions from a status review of the species and serves as the 12-month finding on the petition to delist the species.

Species Description and Habitat Information

Astragalus desereticus was first collected in 1893, again in 1909, then not located again until 1981 (Barneby 1989, p. 126; Franklin 1990, p. 2). The gap in collections may be due to confusion regarding initial records, which were wrongly attributed to Sanpete County, Utah (Franklin 1990, p. 2). The 1964 description and classification of *Astragalus desereticus* by Barneby is the accepted taxonomic status (Barneby 1989, p. 126; ITIS 2015).

Astragalus desereticus is a perennial, herbaceous plant in the legume family with silvery-gray pubescent leaves that are 2–5 inches (in) (4–12 centimeters (cm)) long and flower petals that are white to pinkish with lilac-colored tips (Barneby 1989, p. 126). The flower structure indicates an adaptation to pollination primarily by large bees, likely bumblebees (*Bombus* spp.), which are generalist pollinators (Stone 1992, p. 4). The species appears to be tolerant of drought (Stone 1992, p. 3). A more detailed description of the biology and life history of *Astragalus desereticus* can be found in our 5-year review of the species (U.S. Fish and Wildlife Service 2011, pp. 5–7).

Astragalus desereticus is endemic to Utah County in central Utah, with the only known population near the town of Birdseye (Stone 1992, p. 2). It occurs exclusively on

sandy-gravelly soils weathered from the Moroni geological formation, which is limited to an area of approximately 100 square miles (mi²) (259 square kilometers (km²)) (Franklin 1990, p. 4; Stone 1992, p. 3). The species is known to occur at elevations of 5,400–5,700 feet (ft) (1,646–1,737 meters (m)) (Stone 1992, p. 2; Anderson 2016, pers. comm.; Fitts 2016, pers. comm.). Based upon the species' narrow habitat requirements it has likely always been rare, with minimal additional potential habitat (Franklin 1990, p. 6; Stone 1992, p. 6).

Astragalus desereticus is typically found on steep south- and west-facing slopes with scattered Colorado pinyon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) (Franklin 1990, p. 2). It also can grow well on west-facing road-cuts where plants are typically larger than those found in undisturbed habitat (Franklin 1990, p. 2). The species' habitat is typically sparsely vegetated (SWCA Environmental Consultants 2015, p. 7). The species is an apparent associate of the pinyon-juniper plant community; it is not shade-tolerant, but is found in open areas between trees where the geologic substrate is most likely the habitat feature to which these plants respond (Goodrich *et al.* 1999, p. 265).

Astragalus desereticus is probably a relatively new species on the scale of geologic time that has always occurred in a restricted habitat (a localized neoendemic) based on the ability of the genus to colonize disturbed or unstable habitats in dry climates. This ability has likely hastened evolution of the genus and given rise to many species of *Astragalus* that are sharply differentiated and geographically restricted (Stone 1992, p. 6). *Astragalus desereticus* appears to tolerate at least some disturbance, such as that caused by road maintenance activities (Franklin 1990, p. 2; Fitts and Fitts 2009, p. 5).

Species Abundance, Distribution, and Trends

In 1990, surveys for *Astragalus desereticus* estimated fewer than 5,000 plants in a single population (Franklin 1990, p. 3). A subsequent visit to the same site in 1992 estimated more than 10,000 plants, indicating that a large seed bank likely exists (Stone 1992, p. 7). Consequently, at the time of listing we estimated a total population of 5,000–10,000 plants (64 FR 56591, October 20, 1999).

A combination of survey and census was conducted by the Utah Natural Heritage Program in 2008 to visit unsurveyed, suitable habitat and to provide a total population estimate for the species (Fitts 2008, p. 1). The surveyors found new plant sites (hereafter referred to as a colony) to the north and west of the previously known population. Due to higher plant numbers than expected, only small colonies and one large colony were censused; plant numbers at the remaining large colonies were estimated based on a partial census of 20 percent of the site. The total population estimate was 152,229 plants—including seedlings, juveniles, and adults (Fitts and Fitts 2009, p. 4). It was also noted that the number of plants counted in the original area surveyed in 1990 was greater in 2008 than numbers counted previously (Fitts and Fitts 2009, p. 4). In 2009, surveys were expanded and the updated total population estimate was 197,277–211,915 juvenile and adult plants (Fitts and Fitts 2010, p. 6). More plants likely occurred on private land with exposed Moroni Formation outcrops, but the land owner did not give permission to survey (Fitts and Fitts 2010, p. 7). These surveys may have overestimated the species' population using the partial census method due to extrapolation from earlier hand-drawn colony boundaries; the small number of transects; and the inclusion of seedlings, which

have a high rate of mortality (U.S. Fish and Wildlife Service 2011, p. 10). If only adults were counted, the population estimate was 86,775–98,818 plants (U.S. Fish and Wildlife Service 2011, p. 10). In 2016, surveys were conducted; those data are still being analyzed. However, we expect to have the 2016 survey results included in the final delisting determination.

At the time of listing, we estimated the occupied habitat of *Astragalus desereticus* to include approximately 300 acres (ac) (122 hectares (ha)) in an area 1.6 mi (2.6 km) × 0.3 mi (0.5 km) (64 FR 56591, October 20, 1999). The most recent occupied habitat estimate is approximately 345 ac (140 ha) in an area 2.8 mi (4.5 km) × 0.3 mi (0.5 km) (Fitts and Fitts 2010, p. 6; SWCA Environmental Consultants 2015, p. 2). The species remains known from one population (Birdseye) of scattered colonies on the Moroni formation soils near Birdseye, Utah (U.S. Fish and Wildlife Service 2011, p. 8).

The limited number of surveys and censuses completed for *Astragalus desereticus*, as well as differences in the size of area investigated, prevent a detailed assessment of population trends. However, the available information indicates a larger population since at least 1990 when the first surveys were conducted.

Land Ownership

An estimated 230 ac (93 ha) (67 percent) of the 345 ac (140 ha) of total habitat for *Astragalus desereticus* are in the Birdseye Unit of the Northwest Manti Wildlife Management Area owned by the Utah Division of Wildlife Resources (UDWR); the Utah Division of Transportation (UDOT) owns 25 ac (10 ha) (7 percent); and 90 ac (36 ha) (26 percent) are privately owned (UDWR *et al.* 2006, p. 4). Utah School and Institutional

Trust Lands Administration (SITLA) owns most of the mineral rights in the species' habitat (UDWR *et al.* 2006, p. 7). Surveys in 1990 and 2016 did not locate the species on Federal lands (Franklin 1990, pp. 3–4; Anderson 2016, pers. comm.).

Conservation Efforts

A recovery plan for *Astragalus desereticus* was not prepared; therefore, specific delisting criteria were not developed for the species. However, in 2005, we invited agencies with management or ownership authorities within the species' habitat to serve on a team to develop an interagency conservation agreement for *Astragalus desereticus* intended to facilitate a coordinated conservation effort between the agencies (UDWR *et al.* 2006, entire). The *Conservation Agreement for Deseret milkvetch (Astragalus desereticus)* (Conservation Agreement) was signed and approved by UDWR, UDOT, SITLA, and the Service in 2006 and will remain in effect for 30 years. The Conservation Agreement provides guidance to stakeholders to address threats and establish goals to ensure long-term survival of the species (UDWR *et al.* 2006, p. 7). Conservation actions contained in the Conservation Agreement (in italics), efforts to accomplish these actions, and their current status are described below.

- *Maintain species' habitat within the Wildlife Management Area in its natural state, restricting habitat disturbance:* This action is successful and ongoing.

UDWR acquired the Birdseye Unit of the Northwest Manti Wildlife Management Area in 1967; prior to this acquisition, livestock grazing occurred for more than 50 years in the vicinity (UDWR *et al.* 2006, p. 6). Since acquisition, livestock grazing has been used on a limited basis as a management tool by UDWR;

however, *Astragalus desereticus* occupied habitat is not suitable for grazing, and impacts to the species have been negligible (UDWR *et al.* 2006, p. 7). This habitat has not been grazed by livestock since 2002 (U.S. Fish and Wildlife 2011, p. 17). Future grazing within occupied habitat is unlikely due to the steep terrain (Howard 2016, pers. comm.). A draft wildlife management plan completed by UDWR proposes closing some unauthorized unpaved roads within the Wildlife Management Area, which likely would further benefit the species by reducing habitat fragmentation (as plants reestablish themselves) and reducing future access to the population (Howard 2016, pers. comm.). We anticipate that the plan will be finalized within the next year (Howard 2017 pers. comm.). Because this plan is currently only in draft, we do not rely on it in this proposal to delist the species. However, it provides an indication of future management intentions of UDWR. Removal of juniper may occur as a habitat improvement for grazing, but not within habitat occupied by the species to avoid plant damage and mortality associated with this surface-disturbing activity (Howard 2016, pers. comm.). The steep terrain associated with *Astragalus desereticus* habitat makes grazing, juniper removal, and other land-disturbing activities associated with livestock grazing unlikely.

- *Retain species' habitat within the Wildlife Management Area under management of UDWR:* This action is successful and ongoing. The UDWR continues to manage species' habitat within the Wildlife Management Area in its natural state, with minimal disturbance, as stipulated in the Conservation Agreement (Howard 2016, pers. comm.).

- *Evaluate feasibility of acquiring conservation easements or fee title purchases on small private land parcels between U.S. Highway 89 and the existing Wildlife Management Area as resources and willing sellers become available:* No easements or property have been acquired, and we do not rely on this conservation action in our proposal to delist the species. However, UDWR has a statewide initiative to acquire additional lands, so future acquisition may be possible (Howard 2016, pers. comm.).
- *Avoid using herbicides in species' habitat managed by UDOT:* This action is successful and ongoing. The UDOT does not use herbicides in species' habitat within highway rights-of-way, and has committed to continuing this action as stipulated in the Conservation Agreement (Kisen 2016, pers. comm.).
- *Avoid disturbing plants during highway maintenance and construction carried out by UDOT:* This action is successful and ongoing. The UDOT has not disturbed the species during highway maintenance and construction, and no highway widening projects are anticipated through at least 2040, which is as far as their planning extends (Kisen 2016, pers. comm.).
- *Service will monitor populations on an annual basis as needed:* This action is successful and ongoing. Surveys were conducted in May 2016 by Utah Natural Heritage Program personnel, and they are currently analyzing the data.
- *UDWR and the Service will continue discussions on the development and review of management plans and habitat restoration that may affect species' habitat on the Wildlife Management Area:* This action is successful and ongoing. The Service's Utah Field Office is actively engaged with UDWR in the development

and review of actions that may affect the species, and meets periodically to implement the protections identified in the Conservation Agreement.

In summary, most of the conservation actions described in the Conservation Agreement have been successfully achieved and are part of an ongoing management strategy for conserving *Astragalus desereticus*. Potential threats from residential development, livestock grazing, and highway maintenance and widening are addressed by conservation actions on approximately 74 percent of all occupied habitat owned and managed by either UDWR or UDOT. Conservation measures initiated under the Conservation Agreement will continue through at least 2036.

As described above, we have new information for *Astragalus desereticus* since our listing decision and the species' status has improved. This improvement is likely due to expanded surveys as well as the amelioration of threats and an improved understanding of the stressors affecting the species (see five-factor discussion in the following section). In addition to the conservation actions identified in the Conservation Agreement, new opportunities for conservation of the species may be used in the future. For example, a new power line proposed near the species' habitat will use the same corridor as an existing transmission line (see Factor A).

Survey results from 2009 (the most recent estimate), determined that the total population estimate was 197,277–211,915 juvenile and adult plants occurring on approximately 345 ac (140 ha) of habitat, which is a significant increase compared to estimates of 5,000–10,000 plants occurring on approximately 300 ac (122 ha) at the time of listing. We anticipate that the 2016 survey results will confirm that the population remains stable. The majority of the species' occupied habitat (74 percent) is managed by

UDWR and UDOT, and we have no information that indicates the species faces significant threats on private lands. Active participation on conservation actions specified in the Conservation Agreement has fluctuated due to funding and staffing since it was established in 2006 (U.S. Fish and Wildlife Service 2011, p. 4). However, all of the associated conservation actions for UDWR and UDOT managed habitat have been successfully implemented, with the exception of acquiring conservation easements. Additionally, as described below, threats identified at the time of listing in 1999 are not as significant as originally anticipated (U.S. Fish and Wildlife Service 2011, p. 21).

Summary of Factors Affecting the Species

Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth the procedures for listing species, reclassifying species, or removing species from listed status. “Species” is defined by the Act as including any species or subspecies of fish or wildlife or plants, and any distinct vertebrate population segment of fish or wildlife that interbreeds when mature (16 U.S.C. 1532(16)). A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (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 must consider these same five factors in delisting a species. For species that are already listed as endangered or threatened, this analysis of threats is an evaluation of both the threats currently facing the species and the threats that are

reasonably likely to affect the species in the foreseeable future following the removal of the Act's protections. 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 has recovered and is no longer endangered or threatened; and/or (3) the original scientific data used at the time the species was classified were in error.

Astragalus desereticus is currently listed as threatened. Section 3(20) of the Act defines a "threatened species" as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (16 U.S.C. 1532). We consider "foreseeable future" as that period of time within which a reliable prediction can be reasonably relied upon in making a determination about the future conservation status of a species, as described in the Solicitor's opinion dated January 16, 2009. We consider 20 years to be a reasonable period of time within which reliable predictions can be made for the species. This time period includes multiple generations of the species, coincides with the duration of the Conservation Agreement, and falls within the planning period used by UDOT. We consider 20 years a conservative timeframe in view of the much longer term protections in place for 67 percent of the species' occupied habitat occurring within the UDWR Wildlife Management Area.

A recovered species has had threats removed or reduced to the point that it no longer meets the Act's definition of threatened or endangered. A species is an "endangered species" for purposes of the Act if it is in danger of extinction throughout all or a significant portion of its range and is a "threatened species" if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its

range. For the purposes of this analysis, we will evaluate whether or not the currently listed species, *Astragalus desereticus*, should continue to be listed as a threatened species, based on the best scientific and commercial information available.

In considering what factors might constitute threats, we must look beyond the exposure of the species to a particular factor to evaluate whether the species may respond to the factor in a way that causes actual impacts to the species. If there is exposure to a factor and the species responds negatively, the factor may be a threat, and during the five-factor threats analysis, we attempt to determine how significant a threat it is. The threat is significant if it drives or contributes to the risk of extinction of the species such that the species warrants listing as endangered or threatened as those terms are defined by the Act. However, the identification of factors that could affect a species negatively may not be sufficient to justify a finding that the species warrants listing. The information must include evidence sufficient to suggest that the potential threat is likely to materialize and that it has the capacity (sufficient magnitude and extent) to affect the species' status such that it meets the definition of endangered or threatened under the Act. This determination does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could suffice. The mere identification of factors that could impact a species negatively is not sufficient to compel a finding that listing is appropriate; we require evidence that these factors are operative threats that act on the species to the point that the species meets the definition of an endangered species or threatened species under the Act. The following analysis examines the five factors currently affecting *Astragalus desereticus*, or that are likely to affect it within the foreseeable future.

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

Factor A requires the Service to consider present or threatened destruction, modification, or curtailment of *Astragalus desereticus* habitat or range. The species is found in three different land use zones, as categorized by Utah County Land Use Ordinance (Jorgensen 2016b, pers. comm.; Utah County 2016, Chapter 5). Approximately 74.6 percent of the species' habitat occurs in Critical Environment Zone 1, which has the primary purpose of supporting water resources for culinary use, irrigation, recreation, natural vegetation, and wildlife. Approximately 16.7 percent occurs in Residential Agricultural Zone 5, which has the primary purpose of preserving agricultural lands. The remaining 8.6 percent occurs in Critical Environment Zone 2, which has the primary purpose of preserving fragile environmental uses (Jorgensen 2016b, pers. comm.). These zones do not strictly regulate management and land use and, therefore, are not discussed under Factor D; however, the Ordinance prioritizes uses and provides management guidance for all lands in Utah County, unless specifically exempted (Utah County 2016, Chapter 5). All of the conservation actions in place for the species meet the guidelines under their respective land use zone, and we are not aware of any occupied habitat specifically exempted from the guidance described for the aforementioned land use zones.

The following potential stressors were identified for this species at the time of listing: (1) residential development, (2) highway maintenance and widening, and (3) livestock grazing and trampling. During the current status review we also considered: (4)

mineral development, (5) transmission lines, and (6) climate change. Each of these stressors are assessed below.

Residential development

In our final rule listing *Astragalus desereticus*, substantial human population growth and urban expansion were predicted in the Provo, Spanish Fork, and Weber River drainages east of the Wasatch Mountains. Increased residential development was considered a threat to the species due to the potential for loss of plants and habitat that results from construction of roads, buildings, and associated infrastructure (e.g., utilities) (64 FR 56591, October 20, 1999). However, counter to the predictions of the Quality Growth Efficiency Tools Technical Committee cited in our final listing rule, residential development in these areas has been very limited since listing. Despite the recent construction of a house and a barn adjacent to *Astragalus desereticus* occupied habitat (Fitts 2016, pers. comm.), all other nearby development that has already occurred or is planned for the future is located several miles from the species' habitat as described in the following paragraph.

The nearest community, Birdseye, is unincorporated and has not been included in recent U.S. Census Bureau surveys; therefore, no recent population estimates are available. We are aware of only three proposed development properties in this area. One property has potential for 95 lots and is 2.8 mi (4.5 km) from known occupied habitat. The other two developments would be single dwelling properties approximately 4 mi (6 km) and 5 mi (8 km) from known occupied habitat (Larsen 2016, pers. comm.; Jorgensen 2016a, pers. comm.). These three proposed developments are located near Thistle Creek,

upstream from *Astragalus desereticus* habitat (Jorgensen 2016a, pers. comm.). However, the species' habitat occurs on steep upland slopes that are not vulnerable to potential impacts from changes in downstream flows. Residential development at this scale and distance from *Astragalus desereticus* population is not likely to impact the species or its habitat now or within the foreseeable future.

The majority of *Astragalus desereticus* habitat occurs on steep, rocky, erosive slopes that are not favorable for development; consequently, we do not anticipate any future residential development in the species' occupied habitat (Fitts 2016, pers. comm.). Additionally, as previously noted, approximately 230 ac (93 ha)—67 percent of total habitat for the species—are in a Wildlife Management Area owned by the UDWR that is protected from residential development as described under Factor D.

We conclude, based on the available information, that residential development is not a threat to *Astragalus desereticus* currently or within the foreseeable future due to: (1) the minimal disturbance from residential development that has occurred on the species' habitat to date and is anticipated to be minimal in the future; (2) the steep, rocky, erosive nature of the species' habitat, which precludes most development; and (3) the amount of habitat (67 percent) that is protected from residential development.

Highway widening and maintenance

In our final rule listing *Astragalus desereticus*, potential widening of Highway 89 was considered a threat to plants growing in the highway right-of-way (64 FR 56592, October 20, 1999). Highway widening would result in the loss of plants and habitat directly adjacent to Highway 89. Regular highway maintenance activities include

herbicide use to control weeds that could result in the loss of plants within the right-of-way and adjacent habitat. Additionally, road improvement projects may generate dust that can affect nearby plants. However, widening of Highway 89 has not occurred and is not anticipated by UDOT through at least 2040, which is as far as planning extends (Kisen 2016, pers. comm.).

The nearest highway development project is a modification of the intersection of Highway 89 and Highway 6 planned for 2017 (Kisen 2016, pers. comm.). This project will take place approximately 7 mi (11 km) north of Birdseye and 4 mi (6 km) north of the nearest occurrence of the species. Therefore, we do not anticipate any direct or indirect impacts to the species. No other projects are currently planned within 20 mi (32 km) of Birdseye (Kisen 2016, pers. comm.).

Road maintenance is ongoing; however, as committed to in the Conservation Agreement, UDOT avoids herbicide use and other disturbance in the species' habitat (Lewinsohn 2016, pers. comm.; UDWR *et al.* 2006, p. 9). In instances where herbicides must be used, UDOT will not apply by aerial application within 500 ft (152.5 m) of occupied habitat and will maintain a 100-ft (30-m) buffer for hand application of herbicides around individual plants (UDWR *et al.* 2006, p. 9). The species appears to tolerate some levels of disturbance related to road maintenance because it recolonizes areas that have been disturbed by tracked vehicles, road grading equipment, and road cuts (Franklin 1990, p. 2; Fitts and Fitts 2009, p. 5; SWCA 2015, p. 7).

In summary, highway widening and maintenance can destroy habitat and fragment populations, but based upon information provided by UDOT, impacts from these activities are not projected to occur across the range of *Astragalus desereticus*

within the foreseeable future. We are not aware of planned road-widening construction projects in or near the species' habitat, and UDOT has committed to avoiding herbicide use and other disturbance in occupied *Astragalus desereticus* habitat during maintenance activities (Lewinsohn 2016, pers. comm.; UDWR *et al.* p. 9). Therefore, based on the available information, we conclude that highway widening and maintenance is not a threat to *Astragalus desereticus* currently or within the foreseeable future.

Livestock grazing and trampling

In our final rule listing *Astragalus desereticus*, livestock grazing and trampling were considered threats to the species because of direct consumption of plants, trampling of plants and the burrows of ground-dwelling pollinators, and soil erosion (64 FR 56591, October 20, 1999). In contrast to many species of *Astragalus*, this species apparently is not toxic to livestock, and is palatable and may be consumed (Stone 1992, p. 6; Tilley *et al.* 2010, p. 1).

Prior to UDWR acquiring the Northwest Manti Wildlife Management Area in 1967, livestock grazing occurred for more than 50 years on habitat occupied by *Astragalus desereticus*, and may explain why attempts to locate the species were unsuccessful for decades (UDWR *et al.* 2006, p. 6). Once UDWR acquired the land, they chained (removed scrub growth) and seeded level land upslope of the species' habitat to improve grazing for wild ungulates and livestock; impacts from grazing in the form of trails and trampling were noted at the southern end of *Astragalus desereticus* habitat (Franklin 1990, p. 4, U.S. Fish and Wildlife 2011, p. 16). However, cattle tended to concentrate upslope of the species' habitat in the chained and seeded area where forage

production was higher, and by 1992, there were no signs of recent grazing in the species' habitat (Stone 1992, p. 8). The last cattle grazing on the Wildlife Management Unit occurred in 2002 (U.S. Fish and Wildlife 2011, p. 17).

The UDWR does not currently allow livestock grazing on the Birdseye Unit of the Wildlife Management Area, and does not plan for any future grazing within the portion of the Wildlife Management Area that contains *Astragalus desereticus* habitat (Howard 2016, pers. comm.). Avoidance of livestock grazing in species' habitat that is managed by UDWR is stipulated in the Conservation Agreement (UDWR *et al.* 2006, p. 8). Additionally, the species' habitat is not well-suited to grazing due to sparse forage and steep slopes. Some private lands where the species occurs allow livestock grazing; however, when last visited, there was no evidence of impacts to the species (U.S. Fish and Wildlife 2011, p. 17).

In summary, livestock grazing and trampling were considered a threat to *Astragalus desereticus* in our final listing rule because grazing occurred historically over much of the species' habitat and we were concerned about trampling and erosion impacts to the species from livestock use, especially in light of the small population size known at the time. However, changes in land ownership and management due to establishment of the Birdseye Unit of the Northwest Manti Wildlife Management Area reduced the level of livestock use within 67 percent of the species habitat managed now by UDWR. Permitted cattle grazing on the Wildlife Management Area ceased in 2002, and UDWR remains committed to avoiding impacts within the species' habitat (Howard 2016, pers. comm.). Additionally, occupied habitat on both private and protected lands is steep and rocky, with sparse forage. Consequently, minimal grazing impacts have been

documented. We conclude, based on the available information, that livestock grazing and trampling are not a threat to *Astragalus desereticus* currently or within the foreseeable future.

Mineral development

Impacts from mineral development were not considered in the final rule to list *Astragalus desereticus* (64 FR 56590, October 20, 1999). At the time the Conservation Agreement was signed there was no information indicating that mineral development was going to occur (UDWR *et al.* 2006, p. 7). SITLA owns the mineral rights on most of the land occupied by *Astragalus desereticus*, and the agency has not had any inquiries regarding mineral development in the species' habitat since the Conservation Agreement was signed (UDWR *et al.* 2006, p. 7; Wallace 2016, pers. comm.). In the Conservation Agreement, which will remain in effect through 2036, SITLA agreed to alert any energy and mineral developers to the presence of occupied habitat and recommend surface use stipulations that avoid disturbance and provide mitigation for unavoidable effects to plants or their habitat (UDWR *et al.* 2006, p. 8). However, there is a low potential for mineral development in the area; consequently, no future development is anticipated (Wallace 2017, pers. comm.).

In summary, developers have not expressed any interest in mineral development within the range of *Astragalus desereticus*. Additionally, there is a low potential for mineral development in the area; consequently, no future development is anticipated (Wallace 2017, pers. comm.). Therefore, based on the available information, we

conclude that mineral development is not a threat to *Astragalus desereticus* currently or within the foreseeable future.

Transmission lines

Impacts from transmission lines were not considered in the final rule to list the species (64 FR 56590, October 20, 1999). The Mona to Bonanza high-voltage transmission line is an existing power line near *Astragalus desereticus* habitat located at the easternmost extent of the known range of the species (Miller 2016, pers. comm.). A new power line proposed in the area is the TransWest Express transmission line. This proposed transmission line would use the same corridor as the existing Mona to Bonanza transmission line (SWCA Environmental Consultants 2015, p. 1). TransWest Express estimated that approximately 10.9 ac (4.4 ha) of potential or occupied habitat for the species occurs within 300 ft (91 m) of proposed transmission structures, and approximately 0.25 ac (0.10 ha) would be directly disturbed (SWCA Environmental Consultants 2015, p. 17). This estimate included some habitat above 6,000 ft (1,829 m) that was likely misidentified as occupied habitat (Fitts 2016, pers. comm.). Therefore, actual disturbance estimates may be slightly less than 0.25 ac (0.10 ha). We estimate that up to one percent of the species' total population could be impacted if no measures to minimize impacts were taken (U.S. Fish and Wildlife Service 2016, p. 29). However, minimal impacts are expected to result from the transmission line installation because dust abatement measures would be implemented, the proposed route is located farther away from *Astragalus desereticus* populations than the existing Mona to Bonanza transmission line, and existing access roads would be used within the species' habitat

(U.S. Fish and Wildlife Service 2016, pp. 25–31). Consequently, impacts from the proposed TransWest Express transmission line are not anticipated to result in a population-level effect to the species based upon the localized extent of impacts and the currently robust status of the species (see Species Abundance, Distribution, and Trends). In addition, the species is able to tolerate some levels of disturbance, and plants have recolonized disturbed areas (Fitts and Fitts 2009, p. 5; Franklin 1990, p. 2).

In summary, *Astragalus desereticus* maintains a large, robust population next to the existing Mona to Bonanza transmission line, and only a very minimal amount of habitat (less than 0.25 ac (0.10 ha)) would be disturbed by the proposed future construction of the TransWest transmission line. We conclude, based on the available information, that transmission lines are not a threat to *Astragalus desereticus* currently or within the foreseeable future.

Climate change

Impacts from climate change were not considered in the final rule to list the species (64 FR 56590, October 20, 1999). Our current analyses under the Act include consideration of ongoing and projected changes in climate. The terms “climate” and “climate change” are defined by the Intergovernmental Panel on Climate Change (IPCC). “Climate” refers to the mean and variability of different types of weather conditions over time, with 30 years being a typical period for such measurements, although shorter or longer periods also may be used (IPCC 2007, p. 78). The term “climate change” thus refers to a change in the mean or variability of one or more measures of climate (e.g., temperature or precipitation) that persists for an extended period, typically decades or

longer, whether the change is due to natural variability, human activity, or both (IPCC 2007, p. 78). Various types of changes in climate can have direct or indirect effects on species. These effects may be positive, neutral, or negative and they may change over time, depending on the species and other relevant considerations, such as the effects of interactions of climate with other variables (e.g., habitat fragmentation) (IPCC 2007, pp. 8–14, 18–19). In our analyses, we use our expert judgment to weigh relevant information, including uncertainty, in our consideration of various aspects of climate change.

The current rate of a decade-long drought in the southwestern United States is one per century (Ault *et al.* 2013, p. 7538). This equates to a 50 percent chance over a 50 year interval. Estimates regarding the risk of future persistent droughts in the southwestern United States over the time period from 2050 to 2100 increase to 50–90 percent over the 50 year interval (Ault *et al.* 2013, pp. 7541–7547). In other words, the likelihood of future drought in the southwestern United States is stable to increasing when compared to current conditions. Climate models that predict future temperatures over three different time periods in the 21st century for the southwestern United States show the greatest warming in summer months (3.5–6.5 degrees Fahrenheit (°F)) (1.9–3.6 degrees Celsius (°C)), with a localized maximum increase in temperatures in central Utah (Kunkel *et al.* 2013, p. 72). Nationwide, Utah ranks eighth in rate of warming since 1912, with a 0.233 °F (0.129 °C) increase per decade; and seventh in rate of warming since 1970, with a 0.588 °F (0.327 °C) increase per decade (Tebaldi *et al.* 2012, pp. 3 and 5). We do not have information regarding the increased likelihood of drought or temperature increases at the more detailed scale of the range of *Astragalus desereticus*—a

range that encompasses only a portion of one county in central Utah. Therefore, more site specific predictions are not possible.

The *Astragalus* genus has the ability to colonize disturbed or unstable habitats in progressively dry climates and thus appears to be adapted to drought (Stone 1992, p. 6). Generally plant numbers decrease during drought years and recover in subsequent seasons that are less dry. For example, many plants of *Astragalus desereticus* appeared to die-off in response to the 2012 drought, but have since repopulated the area from the seed bank (Fitts 2016, pers. comm.). *Astragalus desereticus* and other species in the bean family typically have persistent seed banks with at least some proportion of the seed bank being long-lived because the seeds are physically dormant for long periods of time (Dodge 2009, p. 3; Orscheg and Enright 2011, p. 186; Segura *et al.* 2014, p. 75). Dormant seeds have a seed coat that imposes a physical barrier between water and the embryo, and this type of dormancy provides an ecological advantage by staggering germination over a long period of time, protecting the embryo from microbial attack, and increasing the longevity of seeds within the soil (Fulbright 1987, p. 40). Species with physically dormant seeds typically have seeds germinating over many years, which increases the probability of the species' persistence in an unpredictable environment and has been termed a "bet-hedging strategy" (Simons 2009, pp. 1990–1991; Williams and Elliott 1960, pp. 740–742). This strategy buffers a population against catastrophic losses and negative effects from environmental variation (Tielbörger *et al.* 2014, p. 4). *Astragalus desereticus* can be dormant and not detectable for some years, but later detected in the same area given favorable precipitation conditions (Fitts 2016, pers. comm.). This pattern provides some evidence the species has a persistent seed bank and

possibly other life stages that remain dormant during drought conditions. As a result, multiple years of surveys may be necessary to determine if *Astragalus desereticus* is present within suitable habitat.

Astragalus desereticus appears well-adapted to a dry climate and can quickly colonize after disturbance. Plants growing in high-stress landscapes (e.g., poor soils and variable moisture) are generally adapted to stress and thus may experience lower mortality during severe droughts (Gitlin *et al.* 2006, pp. 1477 and 1484). Furthermore, plants and plant communities of arid and semi-arid systems may be less vulnerable to the effects of climate change if future climate conditions are within the historic natural climatic variation experienced by the species (Tielbörger *et al.* 2014, p. 7). The species likely has experienced multiple periods of prolonged drought conditions in the past as documented from reconstructed pollen records in sagebrush steppe lands (Mensing *et al.* 2007, pp. 8–10). Natural climatic variation in the Southwest for the last 500 years included periodic major droughts (Kunkle *et al.* 2013, p. 14). Therefore, it is likely that the species will be able to withstand future periods of prolonged drought.

In summary, climate change is affecting and will continue to affect temperature and precipitation events. We expect that *Astragalus desereticus*, like other narrow endemics, could experience future climate change-related drought. However, current data are not sufficiently reliable at the local level to predict the scope of effects of future climate change-related drought. The information we do have indicates the species and the genus are adapted to drought and are able to re-colonize disturbed areas. Therefore, based upon available information, we conclude that climate change is not a threat to *Astragalus desereticus* currently or within the foreseeable future.

Summary of Factor A

The following stressors warranted consideration as possible current or future threats to *Astragalus desereticus* under Factor A: (1) residential development, (2) highway maintenance and widening, (3) livestock grazing and trampling, (4) mineral development, (5) transmission lines, and (6) climate change. However, these stressors either have not occurred to the extent anticipated at the time of listing, are being adequately managed, or the species is tolerant of the stressor as described below.

- Minimal disturbance from residential development has occurred on the species' habitat to date and is anticipated in the future because of the steep, rocky, erosive nature of the species' habitat. In addition, 67 percent of the species' habitat is protected from residential development due to its inclusion in a State wildlife management area.
- No highway widening is anticipated by UDOT in occupied habitat, and herbicide use and other disturbances are avoided in habitat for the species.
- The steep, rocky nature of the species' habitat and sparse forage minimize livestock grazing, and 67 percent of all habitat is carefully managed by UDWR to restrict it from grazing.
- The lack of inquiries and low potential regarding mineral development indicate that mineral development is not a threat.
- The existing transmission line is not a threat to the species, and activity associated with the proposed transmission line occurring within the species' occupied habitat will be confined to existing access roads.

- The species and its genus are likely adapted to drought related to climate change.
- The species appears able to readily re-colonize disturbed areas.

Therefore, based on the available information, we do not consider there to be any threats now, nor are there likely to be any threats in the future, related to the present or threatened destruction, modification, or curtailment of habitat or range of *Astragalus desereticus*.

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

Factor B requires the Service to consider overutilization of *Astragalus desereticus* for commercial, recreational, scientific, or educational purposes. Overutilization for any purpose was not considered a threat in the final rule to list the species (64 FR 56593, October 20, 1999). The only collections of the species that we are aware of were for scientific purposes. An unknown number of seeds were collected in 2007 and approximately 850 seeds were collected from 45 plants in 2008. In addition, 1,016 seeds were collected from 55 plants in 2009 for germination trials and long-term seed storage at Red Butte Gardens and Arboretum in Salt Lake City, Utah, and the National Center for Genetic Resources Preservation in Fort Collins, Colorado (Dodge 2009, p. 4). This amount of collection is insignificant given the current population estimates for the species, and overall it is beneficial because it will improve our understanding of species propagation and ensure genetic preservation. We are not aware of any other utilization of the species. Therefore, based on the available information, we do not consider there to be any threats now, nor are there likely to be any threats in the future, related to

overutilization for commercial, recreational, scientific, or educational purposes of *Astragalus desereticus*.

C. Disease or Predation.

Factor C requires the Service to consider impacts to *Astragalus desereticus* from disease and predation. Disease and predation were not considered threats in the final rule to list the species (64 FR 56593, October 20, 1999). We are not aware of any issues or potential stressors regarding disease or insect predation. As described in more detail under Factor A, grazing—which could be considered a form of predation—is limited in the species’ habitat and it does not affect the species throughout its range or at a population level. Therefore, based on the available information, we do not consider there to be any threats now, nor are there likely to be any threats in the future, related to disease or predation of *Astragalus desereticus*.

D. The Inadequacy of Existing Regulatory Mechanisms.

Under this factor, we examine whether existing regulatory mechanisms are inadequate to address the threats to *Astragalus desereticus* discussed under other factors. Section 4(b)(1)(A) of the Act requires the Service to take into account “those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species.” In relation to Factor D under the Act, we interpret this language to require us to consider relevant Federal, State, and Tribal laws, regulations, and other such mechanisms that may minimize any of the threats we describe in the threats analyses under the other four factors, or otherwise enhance conservation of

the species. We give strongest weight to statutes and their implementing regulations and to management direction that stems from those laws and regulations; an example would be State governmental actions enforced under a State statute or constitution, or Federal action under statute.

For currently listed species that are being considered for delisting, we consider the adequacy of existing regulatory mechanisms to address threats to the species absent the protections of the Act. We examine whether other regulatory mechanisms would remain in place if the species were delisted, and the extent to which those mechanisms will continue to help ensure that future threats will be reduced or minimized.

In our discussion under Factors A, B, C, and E, we evaluate the significance of threats as mitigated by any conservation efforts and existing regulatory mechanisms. Where threats exist, we analyze the extent to which conservation measures and existing regulatory mechanisms address the specific threats to the species. Regulatory mechanisms may reduce or eliminate the impacts from one or more identified threats.

As previously discussed, conservation measures initiated by UDWR, SITLA, and UDOT under the Conservation Agreement manage potential threats caused by residential development, highway maintenance and widening, and livestock grazing and trampling, as well as the more recently identified proposed transmission line. In addition to these conservation measures, relevant Utah State statutes and UDWR administrative rules that will remain in effect regardless of the species' status under the Act include:

1. Title 23—Wildlife Resources Code of Utah, Chapter 21—Lands and Waters for Wildlife Purposes, Section 5—State-owned lands authorized for use as wildlife management areas, fishing waters, and for other recreational activities. This

statute authorizes the creation, operation, maintenance, and management of wildlife management areas including the Birdseye Unit of the Northwest Manti Wildlife Management Area. The Birdseye Unit contains 67 percent of all known habitat occupied by *Astragalus desereticus*. Consequently, two-thirds of all known habitat is currently managed and will continue to be managed as wildlife habitat regardless of the species' status under the Act.

2. UDWR Administrative Rule R657-28—Use of Division Lands. This administrative rule describes the lawful uses and activities on UDWR lands including Birdseye Unit of the Northwest Manti Wildlife Management Area. These uses cannot conflict with the intended land use or be detrimental to wildlife or wildlife habitat. This administrative rule provides further support to beneficial management on the 67 percent of occupied habitat managed by UDWR, regardless of the species' status under the Act.

We are not aware of any *Astragalus desereticus* occupied habitat on Federal lands. We anticipate that the conservation measures initiated by UDWR, SITLA, and UDOT under the Conservation Agreement will continue through at least 2036. Consequently, we find that conservation measures along with existing State regulatory mechanisms are adequate to address these specific stressors absent protections under the Act.

E. *Other natural or manmade factors affecting its continued existence.*

Factor E requires the Service to consider any other factors that may be affecting *Astragalus desereticus*. Under this factor, we discuss: (1) rarity, (2) stochastic events, and (3) cumulative effects.

Rarity

In our final rule listing *Astragalus desereticus*, small population size was considered a concern for the species because of the potential for low levels of genetic diversity as compared to other more widespread related species (64 FR 56593, October 20, 1999). A species may be considered rare due to: (1) a limited geographic range, (2) occupation of specialized habitats, or (3) small population numbers (Primack 1998, p. 176). This species meets each of these qualifications.

Astragalus desereticus is likely a localized neoendemic, that is, it is a relatively new species on the scale of geologic time and likely has always been geographically restricted (rare) (Stone 1992, p. 6). A species that has always been rare, yet continues to survive, could be well-equipped to continue to exist into the future. Many naturally rare species exhibit traits that allow them to persist for long periods within small geographic areas, despite their small population size. Consequently, the fact that a species is rare does not necessarily indicate that it may be endangered or threatened. Rarity alone, in the absence of other stressors, is not a threat. Despite the species' unique habitat characteristics and limited range, its current population numbers and preliminary demographic analyses show that its known population (via information at monitored sites) is much larger than in 1990 when the first surveys were conducted and will likely be sustained due to the species' resiliency and the absence of significant stressors.

Additionally, as noted under Factor B, seeds have been collected for long-term seed storage at Red Butte Gardens and Arboretum in Salt Lake City, Utah, and the National Center for Genetic Resources Preservation in Fort Collins, Colorado (Dodge 2009, p. 4). This collection provides added security for the species.

Stochastic events

In our final rule listing *Astragalus desereticus*, stochastic events—particularly fire, drought, and disease—were considered a threat because of the species’ small population size and highly restricted range (64 FR 56593, October 20, 1999). Because rare species may be vulnerable to single event occurrences, it is important to have information on how likely it is such an event may occur and how it may affect the species. Demographic stochasticity—random events in survival and reproductive success—and genetic stochasticity—from inbreeding and changes in gene frequency—are not significant threats based on limited abundance trends and the known population size of the species (Stone 1992, pp. 8–10). The same author noted that environmental stochasticity—such as fire, drought, and disease—may be a threat to the species (Stone 1992, p. 10). However, we have since concluded that fire is unlikely in the open, sparsely wooded habitat that the species favors (72 FR 3379, January 25, 2007; U.S. Fish and Wildlife 2011, p. 21). As noted in the discussion of climate change under Factor A, the species appears to be drought tolerant, showing an ability to rebound following drought and re-colonize disturbed areas in progressively dry climates. Lastly, as noted under Factor C, there is no evidence of disease or insect pests. Since listing, survey data has shown the species’ known range is somewhat larger and its population numbers are

much higher than previously thought, which indicates a tolerance to stochastic events. These increases are likely due to a combination of expanded surveys and increases in population.

Summary of Factor E

Given the lack of threats within the *Astragalus desereticus* population and the robust population size, we conclude that rarity and stochastic events are not threats now, nor are they likely to be threats in the future, to *Astragalus desereticus*.

Cumulative effects

Many of the stressors discussed in this analysis could work in concert with each other resulting in a cumulative adverse effect to *Astragalus desereticus*, e.g., one stressor may make the species more vulnerable to other threats. For example, stressors discussed under Factor A that individually do not rise to the level of a threat could together result in habitat loss. Similarly, small population size in combination with stressors discussed under Factor A could present a potential concern. However, most of the potential stressors we identified either have not occurred to the extent originally anticipated at the time of listing in 1999 or are adequately managed as described in this proposal to delist the species. Furthermore, those stressors that are evident, such as drought and rarity, appear well-tolerated by the species. In addition, we do not anticipate stressors to increase on UDWR lands that afford protections to the species on 67 percent of occupied habitat for the reasons discussed in this delisting proposal. Furthermore, the increases

documented in the abundance and distribution of the species since it was listed do not support a conclusion that cumulative effects threaten the species.

Proposed Determination of Species Status

Introduction

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations at 50 CFR part 424, set forth the procedures for determining whether a species is an endangered species or threatened species and should be included on the Federal Lists of Endangered and Threatened Wildlife and Plants (listed). The Act defines an endangered species as any species that is “in danger of extinction throughout all or a significant portion of its range” and a threatened species as any species “that is likely to become endangered throughout all or a significant portion of its range within the foreseeable future.” The phrase “significant portion of its range” (SPR) is not defined by the Act, and, since the Service’s policy interpreting the phrase was vacated by the court in *Center for Biological Diversity v. Sally Jewel*, No. 14–cv–02506–RM (D. Ariz. Mar. 29, 2017), we currently do not have a binding interpretation that addresses: (1) The outcome of a determination that a species is either in danger of extinction or likely to become so in the foreseeable future throughout a significant portion of its range; or (2) what qualifies a portion of a range as “significant.” We have examined the plain language of the Act and court decisions addressing the Service’s application of the SPR phrase in various listing decisions, and for purposes of this rulemaking we are applying the following interpretation for the phrase “significant portion of its range” and its context in determining whether or not a species is an endangered species or a threatened species.

Two district court decisions have evaluated whether the outcomes of the Service’s determinations that a species is in danger of extinction or likely to become so in the foreseeable future in a significant portion of its range were reasonable. *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207 (D. Mont. 2010) (appeal dismissed as moot because of public law vacating the listing, 2012 U.S. App. LEXIS 26769 (9th Cir. Nov. 7, 2012)); *WildEarth Guardians v. Salazar*, No. 09–00574–PHX–FJM, 2010 U.S. Dist. LEXIS 105253 (D. Ariz. Sept. 30, 2010). Both courts found that once the Service determines that a “species”—which can include a species, subspecies, or DPS under ESA Section 3(16)—meets the definition of “endangered species” or “threatened species,” the species must be listed in its entirety and the Act’s protections applied consistently to all members of that species (subject to modification of protections through special rules under sections 4(d) and 10(j) of the Act). See *Defenders*, 729 F. Supp. 2d at 1222 (delisting the Northern Rocky Mountain DPS of gray wolf except in the Wyoming portion of its range (74 FR 15123, April 2, 2009) was unreasonable because the ESA unambiguously prohibits listing or protecting part of a DPS); *WildEarth Guardians*, 2010 U.S. Dist. LEXIS 105253, at 15–16 (the Service’s finding that listing the Gunnison’s prairie dog in the “montane portion” of its range was warranted (73 FR 6660, February 5, 2008) was unreasonable because the Service “cannot determine that anything other than a species, as defined by the ESA, is an endangered or threatened species”). The issue has not been addressed by a Federal Court of Appeals.

For the purposes of this rule, we interpret the phrase “significant portion of its range” (SPR) in the Act’s definitions of “endangered species” and “threatened species” to provide an independent basis for listing a species in its entirety; thus there are two

situations (or factual bases) under which a species would qualify for listing: A species may be in danger of extinction or likely to become so in the foreseeable future throughout all of its range; or a species may be in danger of extinction or likely to become so throughout a significant portion of its range. If a species is in danger of extinction throughout an SPR, it, the species, is an “endangered species.” The same analysis applies to “threatened species.” Therefore, the consequence of finding that a species is in danger of extinction or likely to become so throughout a significant portion of its range is that the entire species will be listed as an endangered species or threatened species, respectively, and the Act’s protections will be applied to all individuals of the species wherever found.

Although there are potentially many ways to determine whether a portion of a species’ range is “significant,” we conclude, for the purposes of this rule, that the significance of the portion of the range should be determined based on its biological contribution to the conservation of the species. For this reason, we describe the threshold for “significant” in terms of an increase in the risk of extinction for the species. We conclude that such a biologically based definition of “significant” best conforms to the purposes of the Act, is consistent with judicial interpretations, and best ensures species’ conservation.

For the purposes of this rule, we determine if a portion’s biological contribution is so important that the portion qualifies as “significant” by asking whether, *without that portion*, the species in the remainder of its range warrants listing (i.e., is in danger of extinction or likely to become so in the foreseeable future). Conversely, we would not consider the portion of the range at issue to be “significant” if the species would not

warrant listing in the remainder of its range even if the population in that portion of the range in question became extirpated (extinct locally).

We interpret the term “range” to be the general geographical area within which the species is currently found, including those areas used throughout all or part of the species’ life cycle, even if not used on a regular basis. We consider the “current” range of the species to be the range occupied by the species at the time the Service makes a determination under section 4 of the Act. The phrase “is in danger” in the definition of “endangered species” denotes a present-tense condition of being at risk of a current or future undesired event. Hence, to say a species “is in danger” in an area where it no longer exists—*i.e.*, in its historical range where it has been extirpated—is inconsistent with common usage. Thus, “range” must mean “current range,” not “historical range.” A corollary of this logic is that lost historical range cannot constitute a significant portion of a species’ range where a species is in danger of extinction or likely to become so within the foreseeable future (*i.e.*, it cannot be currently in danger of extinction in a portion of its range where it is already extirpated). While we conclude that a species cannot be in danger of extinction in its lost historical range, taking into account the effects of loss of historical range on a species is an important component of determining a species’ current and future status.

In implementing these independent bases for listing a species, as discussed above, we list any species in its entirety either because it is in danger of extinction now or likely to become so in the foreseeable future throughout all of its range or because it is in danger of extinction or likely to become so in the foreseeable future throughout a significant portion of its range. With regard to the text of the Act, we note that Congress

placed the “all” language before the SPR phrase in the definitions of “endangered species” and “threatened species.” This suggests that Congress intended that an analysis based on consideration of the entire range should receive primary focus. Thus, the first step in our assessment of the status of a species is to determine its status throughout all of its range. Depending on the status throughout all of its range, we will subsequently examine whether it is necessary to determine its status throughout a significant portion of its range.

Under section 4(a)(1) of the Act, we determine whether a species is an endangered species or threatened species because of any of the following: (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 five factors apply whether we are analyzing the species’ status throughout all of its range or throughout a significant portion of its range.

Astragalus desereticus—Determination of Status Throughout All of its Range

We conducted a review of the status of *Astragalus desereticus* and assessed the five factors to evaluate whether *Astragalus desereticus* is in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range. We also consulted with species experts and land management staff with UDWR and UDOT who are actively managing for the conservation of the species. We carefully assessed the best scientific and commercial information available regarding the past, present, and future

threats to the species. We considered all of the stressors identified at the time of listing as well as newly identified potential stressors such as mineral development, transmission lines, and climate change. As previously described, the stressors considered in our five-factor analysis fall into one or more of the following categories:

- Stressors including residential development, highway widening, and livestock grazing and trampling have not occurred to the extent anticipated at the time of listing, and existing information indicates that the extent of impact will not change in the future.
- Stressors including highway maintenance, livestock grazing, transmission lines, and mineral development are adequately managed through the Conservation Agreement and measures described in the Biological Opinion for the TransWest Express Transmission Line Project, and existing information indicates that this management will not change in the future.
- The species is tolerant of stressors including climate change, transmission lines, rarity, stochastic events, and cumulative effects, and existing information indicates that this tolerance will not change in the future.

These conclusions are supported by the available information regarding species abundance, distribution, and trends and are in agreement with information presented in our advanced notice of proposed rulemaking (72 FR 3379, January 25, 2007) and in our 5-year review (U.S. Fish and Wildlife Service 2011). Thus, after assessing the best available information, we conclude that *Astragalus desereticus* is not in danger of extinction throughout all of its range, nor is it likely to become so in the foreseeable future.

Determination of Status Throughout a Significant Portion of its Range

Consistent with our interpretation that there are two independent bases for listing species as described above, after examining the species' status throughout all of its range, we now examine whether it is necessary to determine its status throughout a significant portion of its range. We must give operational effect to both the "throughout all" of its range language and the SPR phrase in the definitions of "endangered species" and "threatened species." The Act, however, does not specify the relationship between the two bases for listing. As discussed above, to give operational effect to the "throughout all" language that is referenced first in the definition, consideration of the species' status throughout the entire range should receive primary focus and we should undertake that analysis first. In order to give operational effect to the SPR language, the Service should undertake an SPR analysis if the species is neither in danger of extinction nor likely to become so in the foreseeable future throughout all of its range, to determine if the species should nonetheless be listed because of its status in an SPR. Thus, we conclude that, to give operational effect to both the "throughout all" language and the SPR phrase, the Service should conduct an SPR analysis if (and only if) a species does not warrant listing according to the "throughout all" language.

Because we determined that *Astragalus desereticus* is not in danger of extinction or likely to become so in the foreseeable future throughout all of its range, we will consider whether there are any significant portions of its range in which the species is in danger of extinction or likely to become so.

Although there are potentially many ways to determine whether a portion of a species' range is "significant," we conclude, as noted above, for the purposes of this rule, that the significance of the portion of the range should be determined based on its biological contribution to the conservation of the species. For this reason, we describe the threshold for "significant" in terms of an increase in the risk of extinction for the species. We conclude that such a biologically based definition of "significant" best conforms to the purposes of the Act, is consistent with judicial interpretations, and best ensures species' conservation.

We evaluate biological significance based on the principles of conservation biology using the concepts of redundancy, resiliency, and representation because decreases in the redundancy, resiliency, and representation of a species lead to increases in the risk of extinction for the species. *Redundancy* (having multiple resilient populations considering genetic and environmental diversity) may be needed to provide a margin of safety for the species to withstand catastrophic events. *Resiliency* describes the characteristics of a species that allow it to recover from stochastic events or periodic disturbance. *Representation* (the range of variation found in a species) ensures that the species' ability to adapt to changing environments is conserved. Redundancy, resiliency, and representation are not independent of each other, and some characteristics of a species or area may contribute to all three. For example, distribution across a wide variety of habitats is an indicator of representation, but it may also indicate a broad geographic distribution contributing to redundancy (decreasing the chance that any one event affects the entire species), and the likelihood that some habitat types are less susceptible to certain threats, contributing to resiliency (the ability of the species to

recover from disturbance). None of these concepts is intended to be mutually exclusive, and a portion of a species' range may be determined to be "significant" due to its contributions under any one of these concepts.

For the purposes of this rule, we determine if a portion's biological contribution is so important that the portion qualifies as "significant" by asking whether, *without that portion*, the representation, redundancy, or resiliency of the species would be so impaired that the species would have an increased vulnerability to threats to the point that the overall species would be in danger of extinction or likely to become so in the foreseeable future (*i.e.*, would be an "endangered species" or a "threatened species"). Conversely, we would not consider the portion of the range at issue to be "significant" if there is sufficient resiliency, redundancy, and representation elsewhere in the species' range that the species would not be in danger of extinction or likely to become so throughout its range even if the population in that portion of the range in question became extirpated (extinct locally).

We recognize that this definition of "significant" establishes a threshold that is relatively high. Given that the outcome of finding a species to be in danger of extinction or likely to become so in an SPR would be to list the species and apply protections of the Act to all individuals of the species wherever found, it is important to use a threshold for "significant" that is robust. It would not be meaningful or appropriate to establish a very low threshold whereby a portion of the range can be considered "significant" even if only a negligible increase in extinction risk would result from its loss. Because nearly any portion of a species' range can be said to contribute some increment to a species' viability, use of such a low threshold would require us to impose restrictions and expend

conservation resources disproportionately to conservation benefit: Listing would be rangewide, even if only a portion of the range with minor conservation importance to the species is imperiled. On the other hand, it would be inappropriate to establish a threshold for “significant” that is too high. This would be the case if the standard were, for example, that a portion of the range can be considered “significant” only if threats in that portion result in the entire species’ being currently in danger of extinction or likely to become so. Such a high bar would not give the SPR phrase independent meaning, as the Ninth Circuit held in *Defenders of Wildlife v. Norton*, 258 F.3d 1136 (9th Cir. 2001).

The definition of “significant” used in this rule carefully balances these concerns. By setting a relatively high threshold, we minimize the degree to which restrictions would be imposed or resources expended that do not contribute substantially to species conservation. But we have not set the threshold so high that the phrase “throughout a significant portion of its range” loses independent meaning. Specifically, we have not set the threshold as high as it was under the interpretation presented by the Service in the *Defenders* litigation. Under that interpretation, the portion of the range would have to be so important that the current species level of imperilment in the portion results in the species currently being in danger of extinction or likely to become so throughout all of its range. Under the definition of “significant” used in this rule, the portion of the range need not rise to such an exceptionally high level of biological significance. (We recognize that, if the species is imperiled in a portion that rises to that higher level of biological significance, then we should conclude that the species is in fact imperiled throughout all of its range, and that we would not need to rely on the SPR language for such a listing.) Rather, under this interpretation we ask whether the species would be in

danger of extinction or likely to become so everywhere without that portion, *i.e.*, if that portion were hypothetically completely extirpated. In other words, the portion of the range need not be so important that being merely in danger of extinction in that portion or likely to become so would be sufficient to cause the species to be in danger of extinction or likely to become so in the foreseeable future throughout all of its range. Instead, we evaluate whether the *complete extirpation* (in a hypothetical future) of the species in that portion would at that point cause the species throughout its remaining range to be in danger of extinction or likely to become so in the foreseeable future.

We are aware that the court in *Center for Biological Diversity v. Sally Jewel* found that this definition of “significant” does not give sufficient independent meaning to the SPR phrase. However, the court’s decision was based on two misunderstandings about the interpretation of “significant.” First, the court’s decision was based on its finding that, as with the interpretation that the court rejected in *Defenders*, the definition of significant does not allow for an independent basis for listing. However, this definition of significant is not the same as the definition applied in *Defenders*, which looked at the current status within the portion and asked what the effect on the remainder of the species was. By contrast, this definition of significance uses a hypothetical test of loss of the portion and asks what the effect on the remainder of the species would be; the current status of the species in that portion is relevant *only* for determining the listing status if the portion has been determined to be significant. This definition of “significant” establishes a lower threshold than requiring that the species’ current status in that portion of its range causes the species to be in danger of extinction throughout all of its range or likely to become so in the foreseeable future.

The second misunderstanding was the court's characterization of the listing determination for the African coelacanth as an indication the Services have had difficulty accurately applying this definition of "significant." However, in that listing determination, the conclusion was that the species was not in danger of extinction throughout all of its range or likely to become so in the foreseeable future but it did warrant listing because of its status in a significant portion of its range. The only reason for not listing the entire species was that the population in that portion of the range met the definition of a distinct population segment (DPS), and therefore the agency listed the DPS instead of the entire species. The population in an SPR is not automatically a DPS so, contrary to the court's reasoning the definition of "significant" can be applied and result in listing a species that would not otherwise be listed. In light of these flaws, we are currently seeking reconsideration of the district court's decision.

To undertake this analysis, we first identify any portions of the species' range that warrant further consideration. The range of a species can theoretically be divided into portions in an infinite number of ways. To identify only those portions that warrant further consideration, we determine whether there is substantial information indicating that there are any portions of the species' range: (1) that may be "significant," and (2) where the species may be in danger of extinction or likely to become so in the foreseeable future. We emphasize that answering these questions in the affirmative is not a determination that the species is in danger of extinction or likely to become so in the foreseeable future throughout a significant portion of its range—rather, it is a step in determining whether a more detailed analysis of the issue is required.

In practice, one key part of identifying portions for further analysis may be whether the threats or effects of threats are geographically concentrated in some way. If a species throughout its range is not in danger of extinction or likely to become so in the foreseeable future and the threats to the species are essentially uniform throughout its range, then the species is not likely to be in danger of extinction or likely to become so in the foreseeable future in any portion of its range. Moreover, if any concentration of threats applies only to portions of the species' range that are not "significant," such portions will not warrant further consideration.

If we identify any portions that may be both (1) significant and (2) where the species may be in danger of extinction or likely to become so in the foreseeable future, we engage in a more detailed analysis to determine whether these standards are indeed met. The identification of an SPR does not create a presumption, prejudgment, or other determination as to whether the species in that identified SPR is in danger of extinction or likely to become so in the foreseeable future. We must go through a separate analysis to determine whether the species is in danger of extinction or likely to become so in the SPR. To make that determination, we will use the same standards and methodology that we use to determine if a species is in danger of extinction or likely to become so in the foreseeable future throughout all of its range.

Once we have identified portions of the species' range for further analysis, depending on the biology of the species, its range, and the threats it faces, it might be more efficient for us to address the significance question first or the status question first. Thus, if we determine that a portion of the range is not "significant," we do not need to determine whether the species is in danger of extinction or likely to become so in the

foreseeable future there; if we determine that the species is not in danger of extinction or likely to become so in a portion of its range, we do not need to determine if that portion is “significant.”

Astragalus desereticus—Determination of Significant Portion of its Range

Applying the process described above, to identify whether any portions warrant further consideration, we determine whether there is substantial information indicating that (1) the portions may be significant and (2) the species may be in danger of extinction in those portions or likely to become so within the foreseeable future. To identify portions that may be in danger of extinction or likely to become so in the foreseeable future, we consider whether there is substantial information to indicate that any threats or effects of threats are geographically concentrated in any portion of the species’ range. If the threats to the species are affecting it uniformly throughout its range, no portion is likely to have a greater risk of extinction, and thus would not warrant further consideration. Moreover, if any concentration of threats apply only to portions of the range that clearly do not meet the biologically based definition of “significant” (i.e., the loss of that portion clearly would not be expected to increase the vulnerability to extinction of the entire species), those portions will not warrant further consideration.

We evaluated the range of *Astragalus desereticus* to determine if any area could be considered a significant portion of its range. As mentioned above, one way to identify portions for further analyses is to identify portions that might be of biological or conservation importance, such as any natural, biological divisions within the range that may, for example, provide population redundancy or have unique ecological, genetic, or

other characteristics. Based on the small range of the species—approximately 345 ac (140 ha) in an area 2.8 mi (4.5 km) × 0.3 mi (0.5 km)—we determined that the species is a single, contiguous population and that there are no separate areas of the range that are significantly different from others or that are likely to be of greater biological or conservation importance than any other areas due to natural biological reasons alone. Therefore, there is not substantial information that logical, biological divisions exist within the species' range.

After determining there are no natural biological divisions delineating separate portions of the *Astragalus desereticus* population, we next examined whether any threats are geographically concentrated in some way that would indicate the species could be in danger of extinction, or likely to become so, in that area. There is some difference in livestock grazing between State and private lands, with little or no grazing on the 67 percent of habitat occurring on State lands and occasional potential grazing on the remaining private lands. However, steep topography limits grazing everywhere, and there are not fences separating State and private lands (U.S. Fish and Wildlife Service 2011, p. 17). We have reviewed other potential threats and conclude that none of them are concentrated in any portion of the species' range so as to affect the representation, redundancy, or resiliency of the species.

We did not identify any portions where *Astragalus desereticus* may be in danger of extinction or likely to become so in the foreseeable future. Therefore, no portions warrant further consideration to determine whether the species may be in danger of extinction or likely to become so in the foreseeable future in a significant portion of its

range. We conclude that the species is, therefore, not an endangered species or threatened species based on its status in a significant portion of its range.

Astragalus desereticus—*Determination of Status*

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to *Astragalus desereticus*. Because the species is not in danger of extinction now or in the foreseeable future throughout all of its range or any significant portion of its range, the species does not meet the definition of an endangered species or threatened species.

Effects of the Rule

This proposal, if made final, would revise 50 CFR 17.12(h) to remove *Astragalus desereticus* 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 *Astragalus desereticus*. There is no critical habitat designated for this species.

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. The purpose of this requirement is to develop a program that

detects 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.

We are proposing delisting for *Astragalus desereticus* based on new information we have received as well as recovery actions taken. Since delisting will be due in part to recovery, we have prepared a draft post-delisting monitoring (PDM) plan for *Astragalus desereticus*. The PDM plan was prepared in coordination with the Utah Department of Natural Resources (UDNR) and UDWR. Monitoring will be a joint effort between UDNR and the Service. The PDM plan discusses the current status of the species and describes the methods proposed for monitoring if the species is removed from the Federal List of Endangered and Threatened Plants. Monitoring will occur annually for at least 5 years. Given the uncertainty of potential effects from climate change-related drought, we have developed three possible scenarios for PDM as follows. At the end of 5 years, the species' population status will be evaluated, with three possible outcomes: (1) If the population is stable or increasing with no new or increasing stressors, PDM will conclude; (2) if the population is decreasing, but may be correlated with precipitation levels and remains above 20,000 plants on the Wildlife Management Area, PDM will be extended for an additional 3–5 years and then the population status will be reevaluated; or (3) if the population is decreasing without correlation to precipitation levels and there are fewer than 20,000 plants on the Wildlife Management Area, a formal status review will be initiated. The reasoning behind the second and third options ties back to our conclusion that current information indicates the species and genus are adapted to

drought and are able to re-colonize disturbed areas. Therefore, if the population numbers are decreasing but may be fluctuating due to decreased rainfall or drought, additional monitoring may show that the population bounces back during the extended monitoring period allowed for in scenario two. However, if the population is decreasing beyond what might occur as a result of drought, a formal status review would be immediately initiated as described in scenario three.

It is our intent to work with our partners towards maintaining the recovered status of *Astragalus desereticus*. We seek public and peer review comments on the draft PDM plan, including its objectives and procedures (see **Public Comments**, above), with the publication of this proposed rule.

Required Determinations

Clarity of the Rule

Executive Order 12866 requires agencies to write regulations that are easy to understand. We invite your comments on how to make this proposal easier to understand including answers to questions such as the following: (1) Is the discussion in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful to your understanding of the proposal? (2) Does the proposal contain technical language or jargon that interferes with its clarity? (3) Does the format of the proposal (groupings and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? What else could we do to make the proposal easier to understand? Send a copy of any comments on how we could make this rule easier to understand to: Office of Regulatory Affairs,

Department of the Interior, Room 7229, 1849 C. Street, NW, Washington, DC 20240.

You may also email the comments to this address: *Exsec@ios.doi.gov*.

National Environmental Policy Act

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), need not be prepared in connection with regulations pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

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), E.O. 13175, 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 have determined that no Tribes will be affected by this rule because there are no tribal lands within or adjacent to *Astragalus desereticus* habitat.

References Cited

A complete list of all references cited in this proposed rule is available at <http://www.regulations.gov> at Docket No. FWS–R6–ES–2016–0013, or upon request from the Utah Ecological Services Field Office (see **ADDRESSES**).

Authors

The primary authors of this proposed rule are staff members of the Service’s Mountain Prairie Region and the Utah Ecological Services Field Office (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245; unless otherwise noted.

§ 17.12—[Amended]

2. Section 17.12(h) is amended by removing the entry for “*Astragalus desereticus*” under “FLOWERING PLANTS” from the List of Endangered and Threatened Plants.

Dated: September 7, 2017.

James W. Kurth

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

[FR Doc. 2017-21073 Filed: 9/29/2017 8:45 am; Publication Date: 10/2/2017]