amount of the Government contributions paid by the Agency to or on behalf of the contractor to maintain the contractor's health insurance coverage during the period of paid parental leave.

(iii) The contracting officer may waive the reimbursement requirement of this paragraph if the contractor is unable to fulfill the required 12-workweek obligation for any of the following reasons:

(A) In the Agency's judgment, the contractor is unable to return to work because of the continuation, recurrence, or onset of a serious health condition (including mental health) of the contractor or the newly born or placed child—but only if the condition is related to the applicable birth or placement; or

(B) in the Agency' judgment, the contractor is unable to return to work due to circumstances beyond the contractor's control that precludes performance under the contract; or

(C) the contracting officer terminates the contract for convenience in accordance with the clause entitled ''Termination'', or does not exercise any option period.

* * * * *

30. Relocation Expense Benefit

[Insert the following clause in contracts with USPSCs based abroad except Resident Hire USPSCs.]

Relocation Expense Benefit (DATE)

If the contractor's period of performance abroad is for twelve consecutive months or more, USAID may provide a one-time payment to assist the contractor with extraordinary relocation expenses as follows:

(a) A contractor legally residing in, and relocating from the U.S., its commonwealth, possessions or territories to an overseas post; or a personal services contractor relocating immediately from a prior USAID overseas post to the USAID overseas post under this contract, may receive a miscellaneous relocation expense payment of—

(1) $750 or the equivalent of one week's pay, whichever is the lesser amount, if the contractor is unaccompanied; or

(2) $1,500 or the equivalent of two weeks' pay, whichever is the lesser amount, if the contractor is accompanied with eligible family members.

(b) In addition, a contractor legally residing in, and relocating from the U.S., its commonwealth, possessions or territories to the cooperating country pursuant to this personal services contract may receive a pre-departure subsistence expense reimbursement for the contractor and each eligible family member for up to 10 days before final departure to the cooperating country abroad, beginning not more than 30 days after the contractor has vacated their residence, using the following partial flat rate method:

(1) An actual lodging amount (excluding lodging tax) up to the lodging portion of the per diem of the U.S. locality of the contractor's legal place of residence, and a flat amount equal to the meal and incidental expense (M&IE) portion of the per diem according to the formula below. In addition, the contractor may be reimbursed separately for taxes imposed on actual lodging expenses, if any. Receipts are required only for lodging.

(2) For the initial occupant, whether the contractor or accompanying eligible family member age 12 or over, a daily lodging amount not in excess of the published lodging portion of the per diem rate for the U.S. locality at which the occupant normally resides, and a flat amount equal to the meal and incidental expense portion of the referenced per diem rate to defray costs for meals, laundry and dry cleaning.

(3) For each additional occupant, whether the contractor or accompanying eligible family member age 12 or over, a daily lodging amount not in excess of 75% of the published lodging portion of the per diem rate for the U.S. locality at which the occupant normally resides, and a flat amount equal to 75% of the meal and incidental expense portion of the referenced per diem rate to defray costs for meals, laundry and dry cleaning.

(4) For each accompanying eligible family member occupant under age 12, a daily lodging amount not in excess of 50% of the published lodging portion of the per diem rate for the U.S. locality at which the occupant normally resides, and a flat amount equal to 50% of the meal and incidental expense portion of the referenced per diem rate to defray costs for meals, laundry and dry cleaning.

(5) A contractor and any accompanying eligible family member relocating from a place other than the U.S., its commonwealth, possessions or territories to the cooperating country, will not be eligible for the pre-departure subsistence expense portion of the relocation expenses.

(6) Expenses of local transportation are not allowable.

(c) The contractor must obtain approval for what is authorized in paragraphs (a) and (b) of this clause in the Travel Authorization (TA) issued by USAID to the contractor, in accordance with the Travel and Transportation Expenses clause. The contractor must claim reimbursement under the TA only after the contractor and all accompanying eligible family members, if any, have arrived in the cooperating country.

(d) If the contractor does not complete twelve consecutive months in the cooperating country, except for reasons beyond the contractor's control, the contractor will be liable to reimburse USAID for the amount of the relocation expense benefit received.

Mark Walther,

Chief Acquisition Officer.

[FR Doc. 2021–27944 Filed 1–12–22; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R6–ES–2019–0029; FF09E21000 FXES1111090FEDR 223]

RIN 1018–BD71

Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rules To List Graham's Beardtongue (Penstemon grahamii) and White River Beardtongue (Penstemon scariosus var. albifluvis) as Threatened Species and To Designate Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; withdrawal.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are withdrawing our August 6, 2013, proposed rules to list Graham's beardtongue (*Penstemon grahamii*) and White River beardtongue (*Penstemon scariosus* var. *albifluvis*) as threatened species throughout their ranges and to designate critical habitat for these two plant species under the Endangered Species Act of 1973, as amended (Act). These withdrawals are based on our conclusion that the stressors affecting the species as identified in the proposed listing rule are not as significant as previously understood at the time of publication of that proposed rule, such that the species do not meet the Act's definition of an ''endangered species'' or of a ''threatened species.'' Our conclusion is informed by an updated analysis of new and previous information concerning current and future stressors to the species and conservation efforts for them.

DATES: The U.S. Fish and Wildlife Service is withdrawing proposed rules published on August 6, 2013 (78 FR 47590 and 47832), as of January 13, 2022.

ADDRESSES: Relevant documents used in the preparation of this withdrawal are available on the internet at *https://www.regulations.gov* at Docket No. FWS–R6–ES–2019–0029.

FOR FURTHER INFORMATION CONTACT: Yvette Converse, Field Supervisor, U.S. Fish and Wildlife Service, Utah Ecological Services Office, 2369 W Orton Circle, Suite 50, West Valley City, UT 84119; telephone 801–975–3330. Persons who use a telecommunications device for the deaf may call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish this document. Under the Act, a species may warrant protection through listing if it is endangered or threatened throughout all or a significant portion of its range. In 2013, we issued proposed rules to list the Graham's beardtongue and White River beardtongue (beardtongues) and to designate critical habitat for the beardtongues. This document withdraws the proposed listing rule because we have now determined that the factors affecting the beardtongues as identified in that proposed rule are not as significant as previously understood in 2013, such that listing is not warranted for these species. Because we are withdrawing the proposed listing rule for the beardtongues, we also withdraw the proposed critical habitat designation for these species.

The basis for our action. The Act defines an ''endangered species'' as a species that is in danger of extinction throughout all or a significant portion of its range and a ''threatened species'' as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence (16 U.S.C. 1533(a)(1)). We have determined that the stressors affecting the beardtongues as identified in the proposed listing rule (energy development, cumulative impacts from livestock grazing, invasive weeds, small population size, and climate change) are not as significant as previously understood at the time of publication of the proposed rule (*i.e.,* in 2013).

Previous Federal Actions

On August 6, 2013, we published a proposed rule to list Graham's beardtongue and White River beardtongue as threatened species (78 FR 47590) under the Act (16 U.S.C. 1531 *et seq.*). Please refer to that proposed rule for a detailed description of previous Federal actions concerning Graham's beardtongue and White River beardtongue prior to 2013. On August 6, 2013, we also published a proposed rule to designate critical habitat for both species (78 FR 47832). Following publication of our August 6, 2013, proposed rules, the same parties (Bureau of Land Management (BLM); U.S. Fish and Wildlife Service (Service); Utah Department of Natural Resources (DNR); State of Utah School and Institutional Trust Lands Administration (SITLA); Uintah County, Utah) that had drafted a 2007 conservation agreement (CA) for Graham's beardtongue and White River beardtongue reconvened to evaluate species' surveys and distribution information and to reassess the conservation needs of both Graham's and White River beardtongues. Based on this evaluation, the parties completed a new conservation agreement (2014 CA, entire) that specifically addressed the threats identified in our August 6, 2013, proposed listing rule (78 FR 47590). Additional signatories to the 2014 CA included the Utah Public Lands Policy Coordination Office (PLPCO) and Rio Blanco County, Colorado. While private landowners were not signatories to the 2014 CA, some private lands are designated as conservation areas under the 2014 CA, and Uintah County coordinates with and represents the interests of affected landowners.

In the 2014 CA, the parties committed to conservation actions including establishing 44,373 acres (ac) (17,957 hectares (ha)) of occupied and unoccupied suitable habitat as protected conservation areas with limited surface disturbance and avoidance of Graham's and White River beardtongue plants by 300 feet (ft) (91.4 meters (m)). Additionally, BLM agreed to avoid surface disturbances within 300 ft (91.4 m) of Graham's and White River beardtongue plants within and outside of conservation areas on BLM land. The parties also developed conservation measures to address the cumulative impacts from livestock grazing, invasive weeds, small population size, and climate change by continuing species monitoring, monitoring climate, reducing impacts from grazing when and where detected, and controlling invasive weeds.

On May 6, 2014, we announced the reopening of the public comment period on our August 6, 2013, proposed listing and proposed designation of critical habitat rules until July 7, 2014 (79 FR 25806). In that document, we also announced the availability of a draft economic analysis (DEA), draft environmental assessment (EA), draft 2014 CA, and amended required determinations section of the critical habitat proposal. We also announced the availability of 2013 survey results for Graham's and White River beardtongue plants and our intent to hold a public information meeting and public hearing.

On August 6, 2014, we withdrew the proposed rule to list Graham's beardtongue and White River beardtongue as threatened species (79 FR 46042). That withdrawal was based on our conclusion that the threats to the species as identified in the August 6, 2013, proposed listing rule were no longer as significant as we previously determined, such that the species did not meet the Act's definitions of an ''endangered species'' or of a ''threatened species.'' We based this conclusion on our analysis of new information concerning current and future threats to the species and conservation efforts. As a result, we also withdrew our associated August 6, 2013, proposed rule to designate critical habitat for these species.

On March 26, 2015, a complaint was filed in the District Court for the District of Colorado by Rocky Mountain Wild, Center for Biological Diversity, Utah Native Plant Society, Southern Utah Wilderness Alliance, Grand Canyon Trust, Western Resource Advocates, and Western Watersheds Project challenging the withdrawal of the proposal to list Graham's beardtongue and White River beardtongue (*Rocky Mountain Wild* v. *Walsh,* No. 15–615 (D. Colo. filed Mar. 26, 2015)). The State of Utah, SITLA and PLPCO, and Uintah County, Utah, intervened in the litigation (Mot. to Intervene, ECF No. 10). On October 25, 2016, the court found that the withdrawal was contrary to the Act because (1) we concluded that yet-to-be-enacted regulatory and non-regulatory measures mandated by the 2014 CA were ''existing regulatory mechanisms''; (2) we failed to account for the 2014 CA's expiration when determining whether the beardtongues face material threats in the ''foreseeable future''; and (3) we took into account economic considerations when imposing a 300-ft (91.4-m) buffer zone around each beardtongue (Order Vacating Admin. Action and Req. Meet-and-Confer Between the Parties, ECF No. 59).

However, before entering final judgment, the court ordered that the parties meet to discuss whether the 2014 CA could be modified in a manner satisfactory to plaintiffs. Those meetings occurred, but in a December 15, 2017, Joint Status Report to the court, the parties reported that they were unsuccessful at reaching agreement. Therefore, on December 18, 2017, the court entered final judgment, vacating our August 6, 2014, withdrawal, and reinstating the proposed listing and critical habitat rules. As a result, the August 6, 2013, proposed listing and

critical habitat rules (collectively referred to as the 2013 proposed rules) for Graham's beardtongue and White River beardtongue were reinstated, and both species once again became proposed for listing under the Act. The court did not establish a firm deadline for us to reach a new final listing determination but provided that plaintiffs could return to the court to seek such a deadline if the Service did not publish a new final determination by September 30, 2019. The plaintiffs have not yet done so.

On September 12, 2019, we reopened the comment periods on the 2013 proposed rules for 30 days, ending October 15, 2019 (84 FR 48090). We also announced that we would reevaluate the status of both species to determine whether they meet the Act's definition of an ''endangered species'' or of a ''threatened species,'' or whether they are not warranted for listing. We invited the public to comment on the 2013 proposed rules, and we requested new information regarding Graham's beardtongue and White River beardtongue that had become available since the publication of the 2013 proposed rules to inform our evaluation. We also announced the availability of new survey and monitoring information that had become available since the publication of our 2013 proposed rules, and we announced the availability of the final 2014 CA, a 2018 addendum to the 2014 CA, and modified conservation areas under the 2014 CA.

Supporting Documents

We prepared two Biological Reports for Graham's beardtongue and White River beardtongue (Service 2021a, Service 2021b) (hereafter referred to as the Biological Reports), using concepts from the Service's species status assessment (SSA) framework (Smith et al. 2018, entire). The first Biological Report (Service 2021a, entire) represents a compilation of the best scientific and commercial data available concerning the current condition of the two species, including the impacts of past and present influences (both negative and beneficial) on the beardtongues, as well as a discussion of our recommendations for avoidance buffers and surface disturbance caps. The second Biological Report (Service 2021b, entire) represents a compilation of the best scientific and commercial data available concerning the projected future condition of the two species, including the impacts of influences (both negative and beneficial) that are anticipated to affect the beardtongues into the future. In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought the expert opinions of three appropriate subject matter specialists regarding our Biological Report of Current Condition and five appropriate subject matter specialists regarding our Biological Report of Future Condition for the two beardtongues. We received responses from three specialists on our Biological Report of Current Condition and from four specialists on our Biological Report of Future Condition, which informed the underlying analysis and scientific basis for this document. (Some peer reviewers reviewed both biological reports). In preparing this listing determination, we incorporated the results of these reviews into our final biological reports, as appropriate.

We also sent the Biological Reports to partners, including the signatories to the 2014 CA (BLM; Utah DNR; SITLA; PLPCO; Uintah County, Utah; Rio Blanco County, Colorado). The Biological Reports and other materials relating to this listing determination can be found on the Mountain-Prairie Region website at *https://www.fws.gov/mountain-prairie/es/GrahamsAndWhiteRiverBeardtongue.php* and at *http://www.regulations.gov* under Docket No. FWS–R6–ES–2019–0029.

Summary of Comments and Recommendations

As stated above under Previous Federal Actions, on August 6, 2013, we published proposed rules to list Graham's beardtongue and White River beardtongue as threatened species and to designate critical habitat (78 FR 47590 and 47832). These proposed rules each had a 60-day comment period, ending October 7, 2013. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposals. Newspaper notices inviting general public comment and announcing our informational meeting and public hearing were published in the Salt Lake Tribune, Deseret News, and Uintah Basin Standard. On May 6, 2014, we announced the reopening of the public comment period on our 2013 proposed listing and proposed designation of critical habitat rules until July 7, 2014 (79 FR 25806). We received requests for a public hearing, which was held in Vernal, Utah, on May 28, 2014.

Subsequently, we withdrew the 2013 proposed rules and then later reinstated them following litigation. As a result, on September 12, 2019, we again reopened the comment period on the 2013 proposed rules for 30 days (84 FR 48090). We then developed two Biological Reports regarding the two species' current and future conditions (Service 2021a, 2021b), each of which underwent peer review. Responses to comments we received during the comment period for our September 12, 2019, document and from peer reviews of the Biological Reports are provided below. For additional responses to comments for which there is no updated information since 2014, please see the August 6, 2014, withdrawal of the 2013 proposed rules (79 FR 46042). All substantive information provided during all peer reviews and all comment periods has either been incorporated directly into this final determination or our Biological Reports as appropriate or is addressed below. Comments related to our 2013 proposed critical habitat designation are not addressed here; given the decision to withdraw the listing proposal, no further assessment of the proposed critical habitat designation is necessary at this time.

Peer Review Comments

We reviewed all comments on the Biological Reports that we received from the peer reviewers for substantive issues and new information regarding the beardtongues. One peer reviewer provided favorable support of the metrics used to evaluate the beardtongues' current and future condition and provided no edits to the documents. Three peer reviewers provided additional information, clarifications, and suggestions, which we have either incorporated into the Biological Reports or addressed below.

(1) *Comment:* One reviewer stated that it does not seem logical that large Graham's beardtongue populations contain such a wide range of plant abundance (between 171 and 19,735 plants). The reviewer recommended that we provide different delineations of small, medium, and large population sizes for the beardtongues, and they suggested the following categories: Small population size between 0 and 100 plants; medium population size between 101 and 1,000 plants; and large population size greater than 1,000 plants.

Our Response: The recommendation may be appropriate for species that do not have a population viability analysis (PVA), or a peer-reviewed PVA. However, we delineated the population size categories based on a peer-reviewed PVA for the beardtongues. We calculated the extinction risk of each beardtongue population and considered large Graham's beardtongue populations to have an extinction risk of less than

five percent over a 50 year period (USFWS 2021a, pp. 59–61). Large Graham's beardtongue populations must have a minimum of 131 plants and the largest population with 19,735 plants (population 27) has a much lower extinction risk (less than one percent) compared to another population with 171 plants (between four and five percent). Our large population delineation identifies a lower threshold than what the reviewer suggested since it is based on a species-specific evaluation rather than generalized categories that do not take into account a species' life history or demography. We considered the PVA results to provide the best available information to delineate the beardtongues' population size categories, and as such did not make any changes in response to this comment.

(2) *Comment:* One reviewer recommended that our 300-ft (91.4-m) avoidance buffer incorporate pollinator foraging distances for the primary pollinators to ensure adequate beardtongue pollination and reproduction.

Our Response: We considered the effects to individual plants, populations, and pollinators when developing our avoidance buffer and surface disturbance cap recommendations. Our recommended 300-ft (91.4-m) avoidance buffer protects individual beardtongue plants from occupied habitat loss and effects from fugitive dust and invasive weeds. Our recommended surface disturbance caps limit pollinator habitat loss and were designed to be used in tandem with the avoidance buffer to maintain population-level processes such as visitation and gene flow by pollinators as well as the condition of the beardtongues' populations. We evaluated pollinators and their needs at the beardtongue population level to support gene flow between plants and population-level reproduction rather than at an individual plant level. We incorporated pollinator foraging distances into our surface disturbance cap recommendation to restrict the amount of habitat loss and fragmentation within a beardtongue population's pollinator habitat. We delineated a population's pollinator habitat based on the foraging distance of the beardtongues' largest pollinators: 2,297 ft (700 m) for Graham's beardtongue and 1,640 ft (500 m) for White River beardtongue. Based on our review of the best available information and current habitat loss within pollinator habitat of beardtongue populations, the needs of pollinators and beardtongue reproduction can be supported even with some loss of pollinator habitat that occurs outside of the 300-ft (91.4-m) plant avoidance buffer (USFWS 2021a, Appendix E). Current levels of habitat loss within the pollinator habitat of long-term monitoring plots are low, ranging from zero to five percent, with no statistically significant negative effects to pollinator visitation or beardtongue reproduction (USFWS 2021a Appendix E). Published literature indicates that these negative effects are realized after considerable habitat loss has occurred for other species and habitats (USFWS 2021a Appendix E). Our recommendations are consistent with supporting the needs of pollinators and population-level gene flow within relatively intact habitat conditions. Together, the avoidance buffer and surface disturbance caps within conservation areas should conserve beardtongue plants and their pollinators from stressors at two different scales.

(3) *Comment:* One reviewer commented that our knowledge of the beardtongues' current distribution is incomplete due to lack of surveys on Tribal lands and the State of Utah Department of Wildlife Resources lands in Range Unit 2. Surveys are needed in these areas.

Our Response: We acknowledge the lack of surveys in these areas in our Biological Reports. Our determinations on listing the two species are based on the best available scientific information.

(4) *Comment:* One reviewer commented that we omitted review surveys, impacts, and new information for the beardtongues from the Questar Mainline 103 pipeline replacement project. White River beardtongue plants had established in a roadside berm that was created by the initial disturbance between 2009 and 2012. Field observations indicate that White River beardtongue plants were able to establish or reestablish in roadcuts and other disturbance areas.

Our Response: We reviewed the 2012 environmental assessment prepared by the Federal Energy Regulatory Commission (FERC) for this project, and pre-construction surveys were performed for the beardtongues; however, no beardtongue plants were located within the project right-of-way. We mention in the Biological Reports that White River beardtongue occupies some disturbance areas and exhibits some tolerance to habitat disturbance.

(5) *Comment:* One reviewer commented that it may be worth noting that sparsely vegetated shale barren habitat on ridgelines that are considered potential habitat for the beardtongues are attractive off-road vehicle (OHV) routes.

Our Response: We mention the potential for OHV use to occur in the beardtongues' habitat in the Biological Reports. However, the best available information does not indicate that OHV use is occurring there or impacting plants or populations. Therefore, we did not consider OHV use as a stressor in our analysis.

(6) *Comment:* One reviewer commented that the beardtongues' survey results in the Red Leaf lease area on State lands may not be included in the population estimates or maps provided in the draft Biological Report.

Our Response: We reviewed our dataset and confirmed that the beardtongues' survey results for this area are included in the population estimates and maps provided in the Biological Report.

(7) *Comment:* One reviewer recommended that we include the 2020 beardtongues' survey results in Colorado in the Biological Reports.

Our Response: We added the 2020 survey results to the Biological Reports and considered them in our evaluation of the beardtongues' current and future condition. These survey results increased the number of Graham's beardtongue plants in population 22 by 565 plants and reduced the number of White River beardtongue plants in population 10 by 1,039 plants.

(8) *Comment:* One reviewer questioned whether the high energy development scenario is plausible over the next 10 years because of the lack of oil shale commercial development in the Uinta Basin and the checkerboard pattern of landownership that would add complexity, time, and uncertainty to the development of these lands.

Our Response: We intended the high energy development scenario to illustrate the worst-case impacts from energy development. We also recognize that this scenario, while plausible, may be less likely to occur than other scenarios, and that actual future impacts may range anywhere between that scenario and the current condition.

Public Comments

(9) *Comment:* Several commenters stated that the Service should complete an updated threat assessment and provide the public with an opportunity to comment prior to making a final listing determination and critical habitat designation. Commenters believe that threats documented in the 2013 proposed listing rule are still present and oil spills from pipeline ruptures are a new threat associated with energy development that was not previously addressed. Commenters stated that White River beardtongue should be

listed as an endangered species, not a threatened species, due to imminent threats. One commenter mentioned the landscape surrounding beardtongue populations in Colorado has been heavily fragmented by existing energy development infrastructure; if completed, a proposed rail line in the Uinta Basin could increase energy development impacts to the beardtongues.

Our Response: We completed a new threat assessment that is presented in our Biological Reports (Service 2021a, entire; 2021b, entire), and summarized in this document. We evaluated stressors to the beardtongues and considered new information, including current and projected future levels of habitat loss and fragmentation within the beardtongues' pollinator habitat and planned projects including the proposed Uinta Basin rail line. The best available information does not indicate that negative impacts to the beardtongues have occurred or are expected to occur from oil spills.

(10) *Comment:* Multiple commenters mentioned the need for improved surface disturbance caps and buffers to protect the plants from negative impacts from development. The 300-ft (91.4-m) buffer from surface-disturbing activities as outlined in the 2014 CA is less than the 2,297-ft (700-m) proposed critical habitat area surrounding known occurrences; buffers of at least 650 ft (200 m) are needed to conserve pollinators until the research by Barlow and Pavlik is completed to determine minimum habitat areas for populations.

Our Response: We evaluated the best available information to inform our recommended avoidance buffer and surface disturbance caps in our Biological Report of current condition (Service 2021a, pp. 81–82). For more information refer to our response to Comment 2, above. We did not rely on the Barlow and Pavlik road impact evaluation to inform our avoidance buffer recommendation, because we and a peer reviewer identified concerns regarding their assumption that roads were major drivers of the beardtongues' plant size and reproductive effort, and the lack of evidence supporting this assumption from published literature (Barlow and Pavlik 2020, entire; McNellis 2021a and 2021b, entire; Service 2021a, p. 41). We considered the Barlow and Pavlik road impact evaluation to be an exploratory model where the results are predictions to be tested and do not demonstrate causation (Service 2021a, p. 41).

(11) *Comment:* Multiple commenters were concerned that the conservation areas in the 2014 CA protect less acreage (44,373 ac) than the amount of area that was proposed for critical habitat (67,959 ac (27,502 ha)). The 2014 CA protects only 78 percent of the population of Graham's beardtongue and 59 percent of the population of White River beardtongue; the conservation areas do not include all White River beardtongue plants and habitat in the Book Cliffs, which the commenters believed was insufficient. They recommend expanding conservation areas on Federal and State lands to avoid listing both species as threatened under the Act. Multiple commenters stated that critical habitat should include all plants identified in surveys to-date. Three commenters stated that research on White River beardtongue identified the taxon has small and isolated populations with low levels of genetic diversity (Rodriguez-Peña *et al.* 2018), and it is important to protect habitat for as many populations as possible to ensure future genetic viability.

Our Response: There are many ways to achieve conservation of the beardtongues. The proposed critical habitat designation identified all populations known in 2013, with the understanding that critical habitat alone would not convey or guarantee conservation, because critical habitat protections for plants do not apply on non-Federal lands without a Federal action. The proposed critical habitat designations for the two beardtongue species overlapped and totaled 75,846 ac (30,694 ha). Proposed critical habitat on Federal lands alone would apply to only 38 percent of the population of Graham's beardtongue (21,301 plants) on 41,668 ac (16,862 ha), and 27 percent of the population for White River beardtongue (7,942 plants) on 5,758 ac (2,330 ha) (Service 2021a, Appendix B, p. 86). The 2014 CA conserves a smaller amount of habitat in designated conservation areas (42,993 ac (17,399 ha)) than we proposed as critical habitat but provides protections to a similar percentage of the Graham's beardtongue population and a much larger percentage of the White River beardtongue population than afforded by proposed critical habitat on Federal lands. The 2014 CA protects 41 percent of Graham's beardtongue plants (23,333 plants) and 66 percent (19,710 plants) of White River beardtongue plants on Federal and non-Federal lands (Service 2021b, pp. 44–45). The 2014 CA conservation areas support 1,094 White River beardtongue plants in the Book Cliffs population to maintain a large population size with a low risk of extinction (less than 5 percent risk of extinction over a 50-year period). In addition, the conservation areas are strategically placed to provide habitat connectivity, thereby conserving the resiliency, redundancy, and representation (*e.g.,* genetic diversity) of the beardtongues across their ranges (Service 2021a, pp. 42–45; Penstemon Conservation Team 2014, entire; Penstemon Conservation Team 2018b, 2018c, entire).

(12) *Comment:* Multiple commenters expressed concern that the private parties will end their participation in the 2014 CA in 2029.

Our Response: The duration of the 2014 CA is 20 years (until 2034) for Federal, State, and county parties, and 15 years (until 2029) for private parties. During this time, we hope that information regarding the likelihood of energy development beyond 2030 becomes available. We committed to assess the status of the beardtongues by December 31, 2028, prior to the private parties leaving the agreement. If, during or after this timeframe, either species meets the Act's definition of an ''endangered species'' or a ''threatened species,'' we can act to protect the species through the listing process. If the beardtongues are listed under the Act, the 2014 CA expires to avoid a situation where the parties are bound to both the commitments in the agreement and the requirements of the Act. This conservation framework provides a consistent regulatory framework for landowners or managers who may be affected, while still protecting the beardtongues under either scenario.

(13) *Comment:* Commenters expressed concern that the voluntary nature of the 2014 CA by private parties is inadequate and will lead to inconsistent management of the beardtongues. The Federal agencies do not have regulatory mechanisms in place to enforce the conservation measures in the 2014 CA on Federal land, and there are no regulatory mechanisms in place that provide the necessary landscape-level protections to the beardtongues from the threats identified in the 2013 proposed rules. The results of livestock monitoring and assessments were not made available to the public; commenters questioned whether monitoring was conducted according to the schedule identified in the livestock grazing plan.

Our Response: The 2014 CA was developed by county, State, and Federal entities that have the authority to regulate and permit activities on lands within their jurisdiction that overlap with the beardtongues' habitat. These parties are implementing the voluntary agreement and providing protections to the beardtongues that we considered in

this listing determination. We summarize the regulatory mechanisms implemented by each party, the accomplishments of the 2014 CA, livestock monitoring, and corrective actions in our 2021 Biological Reports (Service 2021a, pp. 42–45, 54–56; 2021b, pp. 43–48).

(14) *Comment:* Multiple commenters stated the beardtongues continue to be at risk of extinction due to small population size and isolation. The 2018 population size is misleading and unknown because: (a) Surveys were performed inconsistently and haphazardly across the beardtongues' ranges and were not derived from annual censuses or a scientifically robust sampling design; (b) plants counted in one year may have been counted in subsequent years; and (c) the Service's assumptions that no previously documented plants have died of natural or human causes or that all previously documented plants have been replaced by new plants are incorrect, and there is no data to support them. One commenter noted that some beardtongue species tend to form an extended underground root system and that the beardtongues' total population sizes could be much smaller than our population estimates.

Our Response: We stated in our 2021 Biological Reports and past rulemakings that the total known number of beardtongues has increased over time based on new survey information rather than increasing population trends. Our 2018 population estimates were based on long-term demographic monitoring information that indicate adult beardtongue plants are long-lived (30 years or more) and maintain high survival rates, and populations are generally stable (Pavlik et al. 2015, entire). Therefore, it is reasonable to assume that plants continue to persist on the landscape unless there is human modification of the habitat, or there are high-intensity sheep grazing incidents. We and our partners reviewed all survey information and removed duplicate records to minimize the double-counting of individual plants. There is no indication that the beardtongues form extended underground root systems based on past excavations and translocations of individual plants.

(15) *Comment:* Multiple commenters requested an extension of the public comment period and the release of survey results and livestock monitoring data that became available after the publication of the 2013 proposed rules.

Our Response: We have held three comment periods on the proposed rules. We held our first comment period for 60 days, from August 6 to October 7, 2013 (see 78 FR 47590 and 47832); our second comment period for 60 days, from May 6 to July 7, 2014 (see 79 FR 25806), during which we also held a public information meeting and public hearing on May 28, 2014; and our third comment period for 30 days, from September 12 to October 15, 2019 (see 84 FR 48090). Therefore, we have provided sufficient opportunities for the public to comment on the proposals. During each of the three comment periods, we made available any survey and livestock monitoring data that we had at that time. Specifically, during our third public comment period in 2019, we announced the availability of the latest survey results and other information that had become available since 2013.

(16) *Comment:* One commenter stated that incompatible livestock grazing is occurring on Federal lands, all beardtongue sites within Federal conservation areas should meet BLM Rangeland Health Standards, and monitoring should continue to assess habitat conditions and inform management decisions.

Our Response: Livestock grazing appears to be compatible with conservation of the beardtongues except for intensive sheep grazing events that occur in localized areas (USFWS 2021a, pp. 54–56). The BLM is addressing livestock impacts to the beardtongues on Federal lands as per the 2014 CA. The 2014 CA states that BLM will monitor beardtongues' impacts from grazing and will adjust grazing regimes accordingly to reduce associated impacts. For example, BLM implemented corrective actions that were successful in removing grazing impacts to Graham's beardtongue in the Raven Ridge Area of Critical Environmental Concern (ACEC) in Colorado, and BLM continues to monitor livestock impacts to the beardtongues and evaluate rangeland health (Service 2021a, p. 55). BLM is required to manage rangelands as per the requirements of 43 CFR part 4100, subpart 4180 (''Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration'' (Rangeland Health)) and implement the agency's policy guidelines identified in the Standards for Rangeland Health.

(17) *Comment:* A commenter stated that surface disturbance of all kinds affects the beardtongues' pollinators; cattle trampling results in greater impacts to the ground surface than other herbivores.

Our Response: The best available information indicates that the beardtongues maintain a diverse pollinator assemblage and adequate reproduction under permitted grazing regimes. Monitored populations of the beardtongues that overlap active grazing allotments reproduce by seed on an annual basis and demonstrate reproductive rates that are not pollinator-limited (Barlow and Pavlik 2020, p. 5).

(18) *Comment:* A commenter stated that monitoring reports indicate that herbivory from many sources may impact the beardtongues' ability to successfully replenish the seedbank. Herbivory resulted in high levels of stress to Graham's beardtongue in 2014, and low seedling survivorship.

Our Response: Herbivory to the beardtongues appears to be a natural stressor to beardtongue individuals and is primarily attributed to native grazers (*e.g.,* rodents, rabbits), rather than livestock (Service 2021a, p. 54). Monitored populations of both species continue to remain stable despite the regular frequency, and occasional high levels, of herbivory.

(19) *Comment:* The State of Utah provided information that the number of new oil and gas wells dropped by 67 percent between 2014 and 2015, due to the drop in crude oil and natural gas prices; should prices rebound, the increasing use of horizontal well drilling could reduce the amount of future surface disturbance. Should the market demand for oil shale increase to an economically favorable price, development of this resource may be focused on the richer Piceance Basin in Colorado rather than on the Uinta Basin in Utah. Because of the low likelihood of development from oil and gas in the foreseeable future, the Service should not list the beardtongues. Another commenter stated that a determination to list a species as a threatened species under the Act requires a determination as to the likelihood rather than the mere prospect that a species will or will not become endangered in the foreseeable future. The likely threshold of Graham's and White River beardtongues to become an endangered species in the foreseeable future was suspect in the August 6, 2013, proposed listing rule (78 FR 47590); was mitigated by the 2014 CA; and is better stated as unlikely with the discoveries of new populations, the species' range expansion, and the success in research resulting from the 2014 CA.

Our Response: We note that the Act defines a threatened species as a species that is ''likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range''. The term ''foreseeable future'' extends only so far into the future as the Service can reasonably

determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. See the *Regulatory Framework* section below for further information on how we make determinations on whether to list a species under the Act.

We evaluated the likelihood and location of future energy development (oil shale, tar sands, traditional oil and gas development) within the beardtongues' ranges in our Biological Reports based on the best available information, expert opinion, and peer review (Service 20201a, pp. 45–54; Service 20201b, pp. 15–38, Appendix). Our analysis of projected future energy development evaluates worst-case impacts under the moderate and high energy development scenarios until 2030, which is the date through which reliable predictions can be made based on current information.

(20) *Comment:* Commenters including the State of Utah stated that the rangewide population estimates for the beardtongues have greatly increased since 2013. The known population of Graham's beardtongue increased by 177 percent, and the known population of White River beardtongue increased by 284 percent.

Our Response: As stated by the commenters, the rangewide population estimates for the beardtongues have greatly increased since 2013, based on new survey information and a genetic evaluation of White River beardtongue. Although we want to emphasize that the increase in population size does not mean the total population is increasing. Rather, additional survey results provide a more complete picture of how many beardtongue plants exist across their ranges (USFWS 2021a, pp. 21, 28). Monitoring indicates the beardtongue populations are stable in size.

(21) *Comment:* The State of Utah and other commenters expressed support for the 2014 CA as an appropriate regulatory mechanism to promote research, surveys, and stakeholder engagement. Uintah County, Utah, enacted a zoning ordinance for a 15-year period until 2029, to apply surface disturbance caps and implement a 300-ft (91.4-m) avoidance buffer for 2014 CA conservation areas on private lands. The signatories to the 2014 CA have provided considerable staff time and funding to implement the agreement; successfully implemented surveys, research, monitoring, and planning commitments; expanded conservation areas; committed to providing a summary report of accomplishments every 5 years; and extended the 2014 CA protections on State and Federal lands for a total of 20 years until July 25, 2034. Uintah County expressed their commitment to the conservation of the beardtongues and stated the goal of the 2014 CA is to ensure the beardtongues thrive long after the expiration of the agreement.

Our Response: The signatories are implementing the 2014 CA, and their many contributions were summarized by State members of the agreement (Sheppard and Wheeler 2020, entire). New commitments made by signatories were summarized in the 2014 CA's 2018 addendum, which includes the Service's commitment to assess the beardtongues' status by December 31, 2028. We have considered the 2014 CA and its 2018 addendum in this listing determination.

Background

A comprehensive review of the taxonomy and morphology, habitat, life history and resource needs, population distribution and status, and pollinator information for both Graham's beardtongue and White River beardtongue is presented in our Biological Report of current condition (Service 2021a, pp. 13–41) and is briefly summarized here.

Graham's and White River beardtongues are endemic plants found in northeastern Utah and northwestern Colorado. Graham's beardtongue occurs in 27 populations, with a total population of 56,385 individuals, across the Uinta Basin in Duchesne and Uintah Counties in Utah and Rio Blanco County in Colorado (Service 2021a, pp. 21–27). White River beardtongue occurs in 17 populations, with a total population of 29,902 individuals across the Uinta Basin and at an isolated location in the Book Cliffs in Grand and Uintah Counties in Utah and Rio Blanco County in Colorado (Service 2021a, pp. 28–33). For the purposes of our analysis, we grouped the populations for each species into five range units (*i.e.,* metapopulation areas). The two species overlap with each other in four of their range units in the central and eastern portion of their ranges in Utah and Colorado. The occupied habitat area for Graham's and White River beardtongues is 9,585 ac and 3,462 ac of habitat, respectively. Their pollinator habitat area includes beardtongue occupied habitat and a larger pollinator foraging area, which collectively comprise 91,232 ac and 29,476 ac for Graham's beardtongue and White River beardtongue, respectively.

Graham's and White River beardtongues have highly specific soil requirements and occupy exposed oil shale strata of the Green River geologic formation. The beardtongues are long-lived perennial plant species that flower in the spring and summer months, and both species require pollinators for maximum plant reproduction. Plant survival and successful recruitment require suitable soils with microsites for establishment and growth. The sparse canopy coverage of associated vegetation likely results in low competition from other plants, and the beardtongues appear to be poor competitors with weeds. Reproductive success and maintenance of genetic diversity of these two beardtongues require habitat that supports generalist and specialist pollinators, primarily bees and a specialist wasp. For more detailed information about the biology of both beardtongue species, see our Biological Report of current condition (Service 2021a, pp. 13–41).

Regulatory and Analytical Framework

Regulatory Framework

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

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term ''threat'' to refer in general to actions or conditions that are

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

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

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

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

Analytical Framework

The Biological Reports document the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the two species, including an assessment of the potential threats to the species. The Biological Reports do not represent a decision by the Service on whether these species should be listed as endangered or threatened species under the Act. However, they do provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following discussions provide summaries of the key results and conclusions from the Biological Reports; the full Biological Reports can be found on the Mountain-Prairie Region website at *https://www.fws.gov/mountain-prairie/es/GrahamsAndWhiteRiverBeardtongue.php* and at *https://www.regulations.gov* under Docket No. FWS–R6–ES–2019–0029.

To assess Graham's beardtongue and White River beardtongue viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310; Smith et al. 2018, p. 304) (hereafter referred to as the 3Rs). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

Our Biological Reports used many of the concepts of the Service's SSA framework (Smith et al. 2018, entire) and followed sequential stages to characterize the viability of the Graham's and White River beardtongues. In our Biological Report of current condition (Service 2021a), we first evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how each species arrived at its current condition. In our Biological Report of future condition (Service 2021b), the final stage involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decisions.

Summary of Biological Status and Threats

In preparing the Biological Reports for Graham's and White River beardtongues, we reviewed available reports and peer-reviewed literature, we incorporated survey information, and we sought information from experts regarding the species' primary stressors to further refine our analysis. We identified uncertainties and data gaps in our assessment of the current and future status of both species. In this discussion, we briefly summarize the biological condition of both species and their resources, the influence of those conditions on the species' overall viability, and the risks to that viability. For a full description of our analysis of each species' biological status, current condition, and projected future condition, see our Biological Reports (Service 2021a, 2021b).

Life-History Needs

At the individual level, both Graham's beardtongue and White River beardtongue need suitable soils (shallow soils with virtually no soil horizon development with a surface usually mixed with fragmented shale), suitable precipitation (6 to 12 inches annually), and suitable temperatures (including a minimum of 45 consecutive days less than 40 degrees Fahrenheit (°F) in the winter months) to support plant growth (Service 2021a, pp. 17, 20). To support plant reproduction, the plants need visitation and pollination by bee and wasp pollinators, and floral resources for pollinators provided by the associated plant community, including

the presence of other beardtongue species (Service 2021a, pp. 17, 20). Suitable microsites that provide cover or shelter for seed germination, establishment, and growth are also needed to support both species (Service 2021a, pp. 17, 20).

For Graham's and White River beardtongues to maintain viability, their populations or some portion of their populations must be sufficiently resilient (*i.e.,* able to sustain populations in the face of environmental variation). At the population level, important habitat needs for the beardtongues include: (1) Suitable soil substrate to maximize recruitment and survival within the population (soil and microsite quality); (2) sufficient floral resources to ensure pollinator visitation and maximize adult reproductive output; (3) suitable climate conditions (temperature, moisture) within species' physiological tolerances to maximize population growth and size; and (4) sufficient seed dispersal and contribution to the seed bank to support population stability or growth. If these habitat factors occur over an area of sufficient size to support a sufficient population size and the demographic needs of the species, we anticipate plant populations will retain sufficient resiliency to withstand natural stochastic events (Service 2021a, pp. 33–34).

Based on their population demographics, we expect that survival of established plants (*i.e.,* vegetative and adult (reproductive) plants) and high reproductive output are the most important factors contributing to the growth rate and size of populations (Service 2021a, pp. 34–35). Lastly, resiliency of populations is also influenced by the degree of connectivity among populations (Service 2021a, p. 35).

At the species level, Graham's and White River beardtongues each need multiple, sufficiently resilient, connected populations that represent the range of ecological and genetic diversity across their ranges (Service 2021a, p. 35). Populations that are connected allow for immigration and emigration across the landscape and ensure gene flow and recolonization following extirpation of individual sites or populations (Auffret et al. 2017, pp. 1–3). In order to adapt to changing physical and biological conditions, each species needs to maintain its genetic and ecological diversity (representation) and an adequate number and distribution of sufficiently resilient populations across its range (redundancy).

Because the beardtongues rely on pollinators to maximize seed production and genetic diversity of plant populations, we also note that the persistence of the pollinator assemblage for Graham's and White River beardtongues depends on maintaining nesting sites and floral resources to support pollinator needs (Service 2021a, pp. 35–36). Broadly, the needs of Graham's and White River beardtongue pollinators include intact habitat conditions and an abundance of floral resources throughout the growing season. For an in-depth discussion of the beardtongues' pollinator assemblage, pollinator life history, and the needs of pollinators, see our Biological Report on current condition (Service 2021a, pp. 35–41).

Summary of Factors Influencing Viability

As mentioned above in *Regulatory Framework,* 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. Potential stressors we evaluated for Graham's and White River beardtongue in our Biological Reports included: Three types of energy exploration and development: Oil shale, tar sands, and traditional oil and gas drilling (Factor A); road construction (Factor A); herbivory (Factor C); invasive weeds (Factor A); small population size (Factor E); and climate change (Factors A and E). We also evaluated how existing regulatory mechanisms (Factor D) or other conservation measures (primarily the 2014 CA and 2018 addendum) may lessen the impacts of these stressors. The best available information does not indicate that overutilization (Factor B) is a threat to either beardtongue species. A brief summary of the potential factors affecting Graham's and White River beardtongues is presented below; for a full description of our evaluation of the effects of these stressors and conservation efforts, refer to the Biological Reports (Service 2021a, pp. 41–63; Service 2021b, pp. 15–48).

Conservation Agreement

Following publication of our August 6, 2013, proposed rules (78 FR 47590 and 47832), we entered into a 2014 CA with the following parties: BLM; Utah DNR; SITLA; Uintah County, Utah; the Utah PLPCO; and Rio Blanco County, Colorado (Penstemon Conservation Team 2014, entire). The 2014 CA was designed to specifically address the threats identified in our August 6, 2013, proposed rule to list the two species (78 FR 47590), and expand the protections afforded to the beardtongues on Federal lands. The 2014 CA also provides the species protections on certain non-Federal lands.

The parties committed to a number of conservation actions, including the establishment of 44,373 ac (17,957 ha) of occupied and suitable habitat as protected conservation areas on Federal and non-Federal lands. Within the designated conservation areas, surface disturbance caps are applied to limit the loss and fragmentation of habitat from development, in conjunction with a 300-ft (91.4-m) avoidance buffer between disturbance and beardtongue plants. Uintah County enacted an ordinance to enforce the surface disturbance caps and avoidance buffer within conservation areas on private lands (Penstemon Conservation Team 2014, pp. 28, 35). Additionally, BLM implements a minimum 300-ft (91.4-m) avoidance buffer wherever beardtongue plants occur on Federal lands, as identified in BLM's resource management plans. The parties also developed monitoring plans that include adaptive management to address the cumulative impacts from livestock grazing, invasive weeds, small population size, and climate change by continuing species monitoring, monitoring climate, reducing impacts from grazing when and where detected, and controlling invasive weeds.

Today, the 2014 CA remains in place, and in 2018, the parties added 2,339 ac (947 ha) as new conservation areas for White River beardtongue habitat on Federal and State (SITLA) lands and removed 115 ac (47 ha) of low priority conservation areas (Penstemon Conservation Team 2018b and 2018c, entire). The parties also signed an addendum (Penstemon Conservation Team 2018d, entire) to extend the term of the 2014 CA by an additional 5 years, until 2034, for the Federal, State (SITLA, DNR), and county parties. The private lands in Utah will be released from the 2014 CA when the original term ends in 2029. For the purposes of our analysis, we considered only the 2014 CA protections that are afforded to the beardtongues until 2034. Additional conservation areas under the 2014 CA were designated as ''interim'' and only provide shorter-term protections. However, we did not consider plants in

these interim areas as protected for the purposes of our analysis. We are uncertain of the likelihood of 2014 CA protections continuing beyond 2034 when the CA expires; however, it may be possible to renew the CA with willing partners. As part of the CA, the Service committed to assess the status of the beardtongues in 2028, prior to the expiration of protections on private lands. For additional discussion and details on the 2014 CA and its accomplishments, see our Biological Reports (Service 2021a, pp. 42–45; Service 2021b, pp. 43–48).

Other Regulatory Mechanisms

While the 2014 CA is a voluntary agreement, the State of Utah (SITLA and PLPCO), Uintah County (Utah), and Rio Blanco County (Colorado) used their regulatory authority to implement specific protections as outlined in the 2014 CA (Penstemon Conservation Team 2014, and 2018 a, b, c, entire; Service 2021, pp. 39–43). Utah State law protects the beardtongues on State (SITLA) designated conservation areas and enforces the restrictions identified in the 2014 CA (see title 53C of the Utah Code, at chapter 2, part 2, section 202 (53C–2–202), and the Utah Administrative Code, School and Institutional Trust Lands, at title 850, rule 150 (R850–150)). Uintah County enacted a zoning ordinance to enforce the surface disturbance caps and an avoidance buffer within conservation areas on private lands until 2029 (Penstemon Conservation Team 2014, pp. 28, 35; Uintah County 2018, entire; Penstemon Conservation Team 2019, Appendix A). No other regulatory mechanisms provide protections to the beardtongues on private or State lands in Utah and Colorado.

Other regulatory mechanisms provide protections to Graham's beardtongue and White River beardtongue on Federal (BLM) lands. Graham's and White River beardtongues are BLM sensitive plant species in Utah and Colorado, and are afforded protections at least comparable to (if not greater than) species that are candidates for Federal listing (BLM 2008a, p. 43). In Utah, the BLM Vernal Field Office's resource management plan (RMP), as amended, is the regulatory framework for BLM land management where the beardtongues occur (BLM 2008b, entire). In Colorado, the BLM White River Field Office's RMP, as amended, is the regulatory framework for BLM land management where the beardtongues occur (BLM 1997, entire; BLM 2015, entire). The protections in these RMPs include a 300-ft (91.4-m) avoidance buffer, surface disturbance restrictions on steep slopes, areas that are unavailable for leasing and that have no surface occupancy (NSO) stipulations, and ACECs. For additional detail on all of these regulatory mechanisms, see our Biological Report of future condition (Service 2021b, pp. 46–48).

Oil Shale

Oil shale exploration (*e.g.,* research, exploration, and development) activities occur on State and private lands within the range of the beardtongues. Oil shale exploration and development activities have the potential to destroy beardtongue habitat, plants, and populations. Currently, no exploration activities take place on BLM lands and no plans for commercial-scale development of oil shale exist within the range of both species in Utah and Colorado (BLM 2013, entire; Service 2019d, entire; Service 2021a and b, entire). To date, two oil shale exploration projects have resulted in the loss of 276 ac (112 ha) of Graham's beardtongue pollinator habitat and 246 Graham's beardtongue individuals in Population 13 on State lands (Red Leaf Resources 2013, entire; Red Leaf Resources 2014, entire; The Oil Mining Company 2014, entire; Service 2021a, pp. 45–48).

There are 10,334 ac (4,182 ha) and 1,997 ac (808 ha) of Graham's and White River beardtongue pollinator habitat, respectively, under lease or that have a Utah Division of Oil, Gas and Mining mine permit (includes exploration, small and large mine permits) for oil shale (Service 2021a, pp. 45–48). These areas contain 35 percent (19,476 plants) and 13 percent (4,314 plants) of Graham's and White River beardtongue total populations, respectively. Within oil shale lease and permit areas, conservation areas under the 2014 CA afford protections to 561 Graham's beardtongue plants and 1,678 White River plants with caps on new development and use of an avoidance buffer. The majority of beardtongue habitat within oil shale lease areas has not been impacted by oil shale exploration activities. Aside from the loss of Graham's beardtongue habitat reported above, the disturbance within lease and permit areas is the result of existing roads. We do not anticipate oil shale exploration and development activities to occur within designated conservation areas because of the caps on surface disturbance in the 2014 CA.

Based on past and current exploration and commercial development activities, expert opinion, and the best available information, we consider *exploration* of oil shale from 2020–2030 to be likely on State and private lands with high economic potential within the beardtongues' ranges (Service 2021b, pp. 15–17). However, we consider *commercial development* of oil shale to be about as likely as not on State and private lands, and unlikely on Federal lands within the beardtongues' ranges (Service 2021b, pp. 15–17).

Tar Sands

Tar sands exploration and development activities are occurring on private, State, and BLM lands outside of Graham's and White River beardtongues habitat in the Uinta Basin (Service 2021a, pp. 48–49). Tar sands exploration and development activities have the potential to destroy beardtongue habitat, plants, and populations. To date, tar sand exploration and development activities have not resulted in the loss of beardtongue habitat or plants. One tar sands lease area overlaps the Book Cliffs population of White River beardtongue; however, no White River beardtongue plants or habitat within this lease area have been impacted by tar sand exploration activities. The 2014 CA affords protections to 306 plants and 97 ac (39 ha) within the State lands portion of the lease area and we do not anticipate tar sand exploration and development activities to occur within designated conservation areas because of the caps on surface disturbance. There are no tar sand leases within Graham's beardtongue habitat.

Based on past and current exploration and commercial development activities, expert opinion, and the best available information, we consider exploration of tar sands from 2020–2030 to be likely on State and private lands including the PR Springs South area (Service 2021b, pp. 24–26). However, we consider commercial development of tar sands to be about as likely as not on State and private lands including the PR Springs South area, and unlikely on Federal lands (Service 2021b, pp. 24–28) within the species ranges.

Traditional Oil and Gas

Traditional oil and gas exploration and development activities are occurring on private, State, and BLM lands within Graham's and White River beardtongues habitat (Service 2021a, pp. 49–53). Traditional oil and gas exploration and development activities have the potential to destroy beardtongue habitat, plants, and populations. The best available information indicates that no loss of beardtongue plants from these activities has occurred. However, traditional oil and gas exploration and development activities have resulted in the loss of

less than one percent of the total pollinator habitat area for both species (Federal Energy Regulatory Commission 2012, pp. 24, 25; Lewinsohn 2019, entire; Moore 2019, entire). Approximately 56 percent of Graham's beardtongue pollinator habitat and 39 percent of White River beardtongue pollinator habitat on State and BLM lands are leased for traditional oil and gas development. Within traditional oil and gas lease areas, conservation areas under the 2014 CA afford protections to 34 percent and 42 percent of the Graham's beardtongue habitat and plants under lease, and 36 percent and 32 percent of the White River beardtongue habitat and plants under lease. Overall, traditional oil and gas exploration and development have resulted in a low amount of habitat loss for the two beardtongues to date. The majority of beardtongue pollinator habitat within lease areas is relatively intact and undisturbed.

Based on past and current exploration and commercial development activities, expert opinion, and the best available information, we consider exploration of traditional oil from 2020–2030 to be likely on Federal, State, and private lands within Uintah County in a Mancos shale deposit (the Mancos B play), and do not expect exploration of natural gas to occur, as it is already complete (Service 2021b, pp. 32–33). However, we consider commercial development of natural gas to be likely on Federal, State, and private lands, and commercial development of oil to be unlikely within the species' ranges (Service 2021b, pp. 32–34).

Road Construction and Maintenance

Many unpaved county roads cross through Graham's and White River beardtongue habitat, and most of these roads have existed for decades (Service 2021a, pp. 53–54). Road construction and maintenance activities have the potential to destroy beardtongue habitat, plants, and populations. Plants and populations located near development activities are prone to the effects of dust, weed encroachment, habitat fragmentation, and pollinator disturbance. To date, existing roads and road construction have been the cause of the majority of the loss of beardtongue pollinator habitat. Approximately 1 percent and 1.5 percent of the total pollinator habitat for Graham's and White River beardtongue, respectively, have been lost to road construction. Road construction and paving projects occur infrequently, and we are not aware of other road construction or maintenance projects that are proposed to occur in areas where they would impact Graham's beardtongue or White River beardtongue (Baldwin 2019, entire; Federal Highway Administration (FHWA) 2020, entire; UDOT 2020, entire).

Herbivory

Invertebrates, wildlife, and livestock graze individuals of Graham's and White River beardtongues (Sibul and Yates 2006, p. 9; Dodge and Yates 2010, p. 9; 2011, pp. 9, 12; UNHP 2012, entire; 78 FR 47590, August 6, 2013; 79 FR 46042, August 6, 2014; Penstemon Conservation Team 2015b, entire). Herbivory is primarily due to native grazers rather than livestock (Penstemon Conservation Team 2019a, p. 8). Presumably, beardtongues are adapted to herbivory by native grazers, which may explain why monitored populations continue to remain stable despite occasional high levels of herbivory by native grazers. Most of the Graham's and White River beardtongue populations (99 percent) occur within BLM livestock grazing allotments, except for where the two species occur on private lands (Service 2021a, p. 55). As part of the 2014 CA, the conservation team developed a livestock grazing management plan (Penstemon Conservation Team 2015b, entire), and BLM is monitoring and implementing corrective actions (Service 2021a, pp. 55–56). For example, following a heavy sheep grazing incident at Raven Ridge in Colorado, BLM conducted a site visit with the permittee, reviewed maps of avoidance areas for sheep trailing and bedding, and repaired a fence at the Raven Ridge ACEC boundary. These actions appear to be effective, and sheep grazing has not been detected within the ACEC since 2014 (Service 2021a, p. 56).

Overall, herbivory and livestock grazing are not primary drivers of the beardtongues' current and future condition. The best available information does not indicate that future herbivory impacts would result in any negative population-level impact to the beardtongues. There is the potential for herbivory impacts to increase in populations on non-Federal lands that may be impacted by energy development, because herbivory from native grazers and livestock may increase where available forage is reduced as a result of energy development (Service 2021b, pp. 38–39). We expect future herbivory impacts would be addressed by land management actions and would not increase in beardtongues' populations on Federal lands, where the BLM has committed to take corrective actions. However, there is no commitment to take corrective actions within beardtongue populations affected by development on non-Federal lands if future herbivory impacts increase (Service 2021b, pp. 38–39).

Invasive Weeds and Wildfire

Invasive weeds are present but not extensive across most of the beardtongues' pollinator habitat, and the primary weed is cheatgrass. Invasive weeds have the potential to negatively impact seedling recruitment, plant abundance, and population trends of the beardtongues and other native plants through competitive exclusion, niche displacement, and changes in insect predation. Beardtongue populations with high cheatgrass cover (*i.e.,* introduced annual grasslands greater than 20 percent of habitat area) may be at risk of an altered wildfire regime (Link et al. 2006, p. 116). Based on our review of the existing vegetation types, most beardtongue populations contain low amounts of cheatgrass (less than 5 percent of habitat area), which is consistent with monitoring reports for both species (Service 2021a, pp. 13–20, 57–59; SWCA Environmental Consultants 2014, p. 16). We expect weed levels to remain low in intact beardtongue occupied habitat and increase in disturbed occupied habitat (Service 2021a, pp. 57–59; Service 2021a, pp. 8–11, Appendix B). The effects of invasive weeds may increase in populations that overlap with energy development (Service 2021b, p. 39). As part of the 2014 CA, the conservation team developed a weed management plan. To date, BLM and Uintah County have surveyed for weeds along roads in conservation areas, but no new occurrences of noxious weed species have been detected (Penstemon Conservation Team 2017, p. 1; Penstemon Conservation Team 2018a, p. 1; Sheppard and Wheeler 2020, p. 6).

The best available information does not provide evidence of an altered wildfire regime within the beardtongues' ranges, although decades of fire suppression have increased the risk of high severity, stand-replacing wildfires (BLM 2008b, pp. 3–21). We also considered the exposure and impacts of wildfire to the beardtongues. One recent wildfire (Wolf Den Fire) occurred within the beardtongues' ranges. Overall, the wildfire appeared to have a low or minor negative impact to Graham's beardtongue, while White River beardtongue plants and habitat were not affected (Brunson 2012, entire). To address wildfire, the 2014 CA provides that the Penstemon Conservation Team will coordinate with land managers regarding wildfire and post-wildfire management activities and

mitigation for impacts in conservation areas. For our analysis, we assumed that wildfire frequency and extent in beardtongue populations would generally not change from current levels over the next 10 years.

Small Population Size

Based on results of a PVA, for Graham's and White River beardtongues, we consider small populations to be those that have greater than 10 percent extinction risk (see Service 2021a, pp. 59–62). This threshold is equivalent to Graham's beardtongue populations with fewer than 67 plants and White River beardtongue populations with fewer than 200 individuals. Graham's beardtongue has a lower threshold than White River beardtongue because its populations were more stable over the monitoring period that informed the PVA. Populations in this size category are more prone to extinction from stochastic events than larger populations based on their life-history characteristics and stable demographic pattern (McCaffery 2013b, p. 1). We considered large populations of Graham's and White River beardtongues to be those with low (less than 5 percent) extinction risk, and medium populations to be those with moderate (6–10 percent) extinction risk. Large populations of Graham's beardtongue have more than 130 plants, and large White River beardtongue populations have more than 370 plants (Service 2021a, pp. 59–62; Service 2021a, p. 7, Appendix A). Graham's beardtongue has 12 small populations and 15 large populations distributed across its range, and the small populations comprise less than one percent of all known individuals. White River beardtongue has 6 small populations and 11 large populations distributed across its range, and the small populations comprise less than one percent of all known individuals. As part of the 2014 CA, the Penstemon Conservation Team developed designated conservation areas to protect large populations of Graham's and White River beardtongues as well as moderate and small populations across both species' ranges to support population connectivity. While not a primary driver of either species' current or future condition, we considered the potential cumulative impacts of small population size with other stressors in our analysis.

Climate Change

Climate change has the potential to impact Graham's and White River beardtongues (78 FR 47590, August 6, 2013; 79 FR 46042, August 6, 2014). We do not have a clear understanding of how Graham's and White River beardtongues have responded to precipitation changes, although plant numbers have been documented as remaining fairly stable during drought years. There is also no association between regional precipitation patterns and population demographics for either species (McCaffrey 2013a, p. 16). As part of the 2014 CA, BLM recently installed weather monitoring equipment adjacent to eight monitoring sites to collect local climate data in Range Units 1–5 (McCulley and Hornbeck 2017, p. 2; Penstemon Conservation Team 2019a, p. 8; Sheppard and Wheeler 2020, pp. 17–22). The data collected from weather monitoring can be correlated with demography data to determine basic species responses to climate patterns.

Because we are not aware of a downscaled climate model for the range of Graham's and White River beardtongues, we used climate change data from the Multivariate Adaptive Constructed Analogs (MACA) website. We used two different emission scenarios, a stabilization emission scenario using Representative Concentration Pathway (RCP) 4.5 and a rising greenhouse gas emissions scenario using RPC 8.5 developed by the Intergovernmental Panel on Climate Change. The results of our ''downscaled'' climate evaluation indicate future climate conditions will be warmer in all seasons under both emission scenarios (Lindstrom 2019, entire). The difference in temperature increase between the two scenarios is within 3.2 °F through 2070. Precipitation for all seasons is expected to increase under both scenarios. In order to evaluate a more integrated measure of the combined effect of increased temperature and precipitation levels, we considered a measure of evaporative deficit instead of precipitation alone for our predictions of drought conditions (Lindstrom 2019, entire), using the U.S. Geological Survey (USGS) National Climate Change Viewer. Both scenarios indicate the range of Graham's and White River beardtongues may be drier in the future (through 2070) compared to historical conditions (Service 2021b, pp. 40–41).

Overall, climate change presents substantial uncertainty regarding the future environmental conditions in the range of Graham's and White River beardtongues, but it may place an added stress on the species and its habitat, particularly where other stressors are present. When we considered characteristics that contribute to vulnerability to climate change such as dispersal ability, highly specific habitat requirements, and ability to shift distribution in response to environmental conditions, Graham's and White River beardtongues would likely rank moderate or high on the vulnerability index at the species level (Young et al. 2012, pp. 133–139). Despite characteristics that make the two species vulnerable to climate change, our climate evaluation is too speculative to determine the severity of this stressor to Graham's and White River beardtongues at the population level. Long-lived perennial plants exhibit a range of drought and temperature sensitivities based on physiological, morphological, and inherent genetic variability (Warwell and Shaw 2017, p. 1205), which all contribute to a species' tolerance (Hoover et al. 2015, pp. 7–11). Additional information regarding each species' drought and temperature tolerance is needed for us to be able to assess the species' responses to future climate changes. For our analysis, we assumed that climate conditions would generally not change over the next 10 years from current levels in beardtongue populations, but may contribute to stronger effects of herbivory and invasive weeds to all beardtongue populations. Over a longer timeframe (through 2070), we expect temperatures and drought conditions to increase, but there is substantial uncertainty regarding their impact to the beardtongues.

Stressors Considered but Not Carried Forward

We considered the potential impacts from off-highway vehicle use, disease, and collection. The best available information indicates that these are low-level stressors and do not impact the beardtongues either by themselves, or cumulatively with any other stressors (Service 2021a, p. 63).

Summary of Factors Influencing Viability

Overall, we consider the primary drivers of the status of Graham's beardtongue and White River beardtongue to be energy development and the protections provided by the 2014 CA and other regulatory mechanisms on Federal and State lands. Energy development activities, including oil shale, tar sands, and traditional oil and gas, have collectively had minimal impacts to both species to date but have the greatest potential of the stressors we evaluated for future impacts. Other stressors are not expected to have population- or species-level impacts by themselves but may have the potential for cumulative

impacts on the species when considered together with energy development and other stressors. The protections provided by the 2014 CA and other regulatory mechanisms are expected to reduce the negative effect of energy development on the beardtongues' population resiliency.

Summary of Current Condition

In our Biological Report of current condition (Service 2021a, entire), we describe Graham's and White River beardtongues' viability by characterizing their current condition in terms of the 3Rs. We evaluate resiliency at the population level, and redundancy and representation at the species level. This analysis is described in detail in the Biological Report (Service 2021a, entire), and is briefly summarized here.

We evaluated the current resiliency of each beardtongue population by scoring relevant demographic (population size) and habitat factors for the species for which information is available (Service 2021a, pp. 66–70). For population size, we incorporated two factors, population extinction risk (based on a PVA) and the presence of high-density clusters of plants within populations, into our calculation. For habitat, we incorporated three factors, pollinator habitat quality (measured as percent nonnative plant cover), pollinator habitat area, and pollinator habitat loss, into our calculation. We included pollinator habitat area because this factor is associated with plant abundance and biodiversity (Krauss et al. 2004, entire) and may change in a predictable way to estimate future population size. Each population's overall resiliency score is the average of all individual factor scores, which translates to an overall current condition category of low, moderate, or good.

Graham's Beardtongue

Fourteen Graham's beardtongue populations are in good current condition (*i.e.,* the most resilient) due to their large population size and habitat quality ranks (Service 2021a, pp. 68–69). These factors likely provide Graham's beardtongue the ability to withstand stochastic events such as drought or wildfire. The remaining 13 populations are in moderate condition based on the habitat and demographic factors contributing to resiliency (Service 2021a, pp. 68–69). The moderate condition of these populations may result in a lower ability to withstand stochastic events than the populations in good condition. The low levels of habitat loss to date have not changed the overall current condition of any population. Only one population (population 11) had a reduction in the overall condition because of higher weed presence; the remaining populations retain the same condition as they did historically (Service 2021a, pp. 68–69).

Unlike many other narrow endemic species, the redundancy of Graham's beardtongue is quite high despite its limited geographical range. The species' 27 populations are spread across the Uinta Basin on different topographic features, which likely provides the ability to withstand more localized catastrophic events (*e.g.,* wildfire), and may provide a limited ability to withstand rangewide catastrophic events (*e.g.,* drought) (Service 2021a, pp. 70–72). Maintaining redundancy to reduce the risk from catastrophic events is dependent upon maintaining sufficiently resilient populations of Graham's beardtongue in topographically diverse habitat conditions.

We do not have meaningful information on the genetic diversity of Graham's beardtongue. Therefore, we considered other types of representative diversity, such as population size and ecological settings, that could indicate some ability to adapt to change within the species' range (Service 2021a, pp. 72–77). Graham's beardtongue has 15 large populations distributed across its range with at least 1 large population within each of the five range units. There are three medium populations within the two western-most range units; the remaining nine populations are small. We assume the 15 large populations contain the majority of genetic variation within the total population because they contain 99.5 percent of all individuals (Service 2021a, p. 73). Graham's beardtongue populations and metapopulations occur in a high diversity of ecological settings, suggesting a high level of genetic variation within each range unit (Service 2021a, p. 76). In addition, the species exhibits a gradient of morphological and phenological differences across its range. Preserving the species' representation requires maintaining medium and large populations, connectivity between populations, and a diversity of ecological settings across its range. The current distribution is the same as the historical distribution, and the best available information does not indicate that a reduction in genetic diversity or connectivity among populations has occurred.

Overall, Graham's beardtongue exhibits high levels of resiliency, redundancy, and representation that have allowed populations to persist throughout the species' range. The species contains a high number of populations in good or moderate condition, and levels of redundancy and representation are similar to its historical condition. Graham's beardtongue is stable despite localized weed encroachment and some loss of occupied habitat and pollinator habitat. The current condition of Graham's beardtongue populations is a direct result of the low levels of habitat loss and degradation to date and habitat protections afforded to the species under the 2014 CA. For further explanation of our analysis of the current condition of Graham's beardtongue, see our Biological Report (Service 2021a, pp. 63–80).

White River Beardtongue

Seven White River beardtongue populations are in good current condition (*i.e.,* the most resilient) due to their large population size and habitat factors (Service 2021a, pp. 68–70). These factors likely provide White River beardtongue the ability to withstand stochastic events such as drought or wildfire. There are nine populations in moderate condition based on the habitat factors (habitat area and quality) contributing to resiliency (Service 2021a, pp. 68–70). The moderate condition of these populations may result in a lower ability to withstand stochastic events compared to populations in good condition. One population (Population 8) is in low condition and is the least likely to withstand stochastic events (Service 2021a, pp. 68–70).

The low overall level of pollinator habitat loss for all populations to date does not change the overall current condition of any population because habitat loss does not exceed the low habitat loss condition threshold of five percent habitat loss, and effects to populations remain small and localized. Two populations (Populations 8 and 13) had a reduction in their overall condition because of higher weed presence; the remaining 15 populations retain the same condition as they did historically (Service 2021a, pp. 68–70).

Unlike many other narrow endemic species, the redundancy of White River beardtongue is fairly high despite its limited geographical range (Service 2021a, pp. 70–72). The species includes 17 populations spread across the Uinta Basin on different topographic features, which likely provides the ability to withstand more localized catastrophic events (*e.g.,* wildfire) and may provide a limited ability to withstand rangewide catastrophic events (*e.g.,* drought).

Maintaining redundancy to reduce the risk of catastrophic events is dependent upon maintaining sufficiently resilient populations of White River beardtongue in topographically diverse habitat conditions.

We considered population size and ecological settings that could indicate some ability to adapt to change within the species' range (Service 2021a, pp. 72–77). White River beardtongue has 11 large populations distributed across its range with at least 1 large population within each of the five range units. The remaining six populations are small. We assume these 11 large populations contain the majority of genetic variation within the total population, because they contain 99.7 percent of all individuals (Service 2021a, p. 76). There is a high diversity of ecological settings within White River beardtongue metapopulations, suggesting a high level of genetic variation within each range unit. One White River beardtongue range unit has a distinctly different composition of vegetation types than the other range units, which we consider a different ecological setting for the species (Service 2021a, p. 76). We assume this is an indication that this range unit has a slightly different genetic composition than the other range units. The preliminary genetic information and opinions from our expert panel support this assumption (Stevens 2019, attachments a, b, c; Service 2017a, p. 4). Preserving the species' representation requires maintaining large populations, connectivity between populations, and a diversity of ecological settings across its range. The current distribution is the same as the historical distribution, and the best available information does not indicate that a reduction in genetic diversity or connectivity among populations has occurred.

Overall, White River beardtongue exhibits high levels of resiliency, redundancy, and representation, which have allowed populations to persist throughout the species' range. The species contains a high number of populations in good or moderate condition, and levels of redundancy and representation are similar to its historical condition. White River beardtongue is stable despite localized weed encroachment and some loss of pollinator habitat. The current condition of White River beardtongue populations is a direct result of the low levels of habitat loss and degradation to date and habitat protections afforded to the species under the 2014 CA. For further explanation of our analysis of the current condition of White River beardtongue, see our Biological Report (Service 2021a, pp. 63–80).

Summary of Future Condition

Using the 3Rs, we evaluated the future viability of the beardtongues based on the presence of multiple (redundancy), self-sustaining (resiliency) populations distributed across the range of the species, and their contributions to adaptive capacity (representation) in the face of changing environmental conditions. We relied on our characterization of each species' current condition, stressors, and effects of stressors as the baseline from which to evaluate future changes to those factors considered important to the beardtongues (Service 2021a, entire). Our analysis of the projected future condition of Graham's and White River beardtongues is described in detail in our Biological Report of future condition (Service 2021b, entire), and is briefly summarized here.

Based on input received from Federal and State agencies, private industry, and the best available information, we developed two plausible future scenarios—moderate and high energy development (Service 2021b, pp. 48–56). We used reliable projections of future events and the future locations of stressors based on the best available information and expert opinion. Published literature evaluates energy development at a coarser scale (*e.g.,* the Uintah Basin, State of Utah, or county-level) than what we needed for our analysis within the beardtongues' ranges. Therefore, we relied on expert opinion to evaluate energy development specifically within the ranges of the two species and assign likelihoods to future exploration and development activities (Service 2021b, pp. 12, 13).

Based on this information, our two scenarios considered impacts to the beardtongues through 2030, because we have sufficient information to project out to 10 years for energy development (oil shale, tar sands, and oil and gas development), which is the primary future stressor for the beardtongues (Service 2021b, p. 49). Beyond 10 years, there is too much uncertainty about the fluctuating market price of oil and gas, the possibility of future technological advances that could lower extraction costs and favor certain industries, and the results of planned oil exploration to project the level or distribution of energy development within the beardtongues' populations and ranges, such that projections would become speculative (Service 2019, entire; Service 2020, entire). Expert panel likelihood estimates and the best available information from published literature and technical reports informed our 10-year energy development (oil shale, tar sands, and oil and gas development) projection timeframe. Our 10-year energy development timeframe is generally consistent with long-term economic forecasts for oil shale, tar sands, and traditional oil and gas that are based on the market price of oil and natural gas (Service 2021b, pp. 17, 25, 33, 34). In addition, future oil exploration and development within the beardtongues' ranges will depend of the results of planned exploration within Uintah County (Service 2021b, pp. 32—35). We note that we do have certainty through 2034 that the protections of the 2014 CA will remain in place, which will limit where energy development could occur. For more information on how these projection timeframes relate to our evaluation of the ''foreseeable future'', see *Consideration of Foreseeable Future* below.

In the locations where energy stressors occurred for the two scenarios, our analysis included the following assumptions: Commercial development activities for oil shale and tar sands will occur in the next 10 years on non-Federal (private and state) lands within each forecast; and a total loss of plants and habitat will occur where oil shale and tar sands development are projected (Service 2021b, pp. 15–31; 49–56). These assumptions allowed us to evaluate potential worst-case impacts from energy development in combination with other stressors, to bracket the full range of impacts to the beardtongues that may occur, because actual future impacts may range anywhere from their current condition to the future scenarios evaluated here, or may fall in between. We did not develop a scenario that considered ''exploration-only'' activities for oil shale and tar sands, with a smaller surface disturbance extent, even though this would also be a plausible future forecast for oil shale and tar sands, because the impacts under an exploration-only scenario would fall in between the current condition and the energy development scenarios we developed. Our evaluation of effects from energy development accounted for the protections afforded to the beardtongues from the 2014 CA that are in place through 2034.

For the two future scenarios, we forecasted the species' biological condition based on conservation efforts and the following stressors: Oil shale, tar sands, and traditional oil and gas exploration and development activities; road construction and maintenance; herbivory; invasive weeds; small

population size; and climate change. Our future scenarios varied based on two forecasts for oil shale (moderate, high). For each of the other stressors (tar sands, traditional oil and gas, road construction and maintenance, herbivory, invasive weeds, small population size, and climate change) we developed only one future forecast (these forecasts were used in both future scenarios) because their future, plausible extents are not expected to vary much within the beardtongues' ranges independent of the oil shale stressor (Service 2021b, pp. 49–56).

In the moderate energy development scenario (Scenario 1), we projected that oil shale exploration and commercial development would occur on lands identified as having a high potential for both activities (Service 2021b, pp. 49–52). The effects of herbivory and invasive weeds may increase in populations that overlap with energy development. Climate change may increase the effects from herbivory and invasive weeds to all beardtongue populations. In the high energy development scenario (Scenario 2), we projected that oil shale exploration and commercial development would occur over a larger area that included the same lands as the moderate scenario, plus other lands identified as likely or about as likely as not to support these activities (Service 2021b, pp. 52–55). The potential effects of the other stressors to all beardtongue populations remained the same as evaluated for the moderate energy development scenario.

Under each of these future scenarios, we assessed future resiliency by evaluating relevant habitat and demographic factors to calculate an overall condition score for each plant population. We evaluated population size, habitat area, habitat quality, and habitat loss to project the future resiliency of each population. Based on the results of these evaluations, we rated population condition as good, moderate, low, or extirpated. To assess future redundancy, we evaluated the projected number and distribution of populations within the species' range relative to the current condition. To assess future representation, we evaluated the projected demographic (population size) and ecological (ecological settings) surrogates of genetic diversity relative to the current condition. For more detailed information on our methodology for evaluating future conditions, see the Biological Report (Service 2021b, pp. 49–56).

Graham's Beardtongue

Under the moderate energy development scenario, oil shale and traditional oil and gas are the main stressors for Graham's beardtongue, and these stressors are projected to result in loss of individual plants and habitat in the center of the species' range (Service 2021b, Figure 11, pp. 50, 56). In this scenario, there is a projected loss of 34 percent of the total number of plants from energy development, with a remaining total population size of 37,350 individuals in 24 populations (Service 2021b, p. 57). Remaining occupied habitat and pollinator habitat are projected to be 7,642 ac (3,093 ha) and 72,455 ac (29,321 ha), respectively. The main stressors result in the extirpation of three populations and a decline in the condition of four populations compared to their current condition. The current population condition is maintained in the other 20 populations. The species continues to occupy the extent of its current range, and all five range units continue to support populations in good or moderate condition. Fourteen populations in good and moderate condition are large in size and have a low extinction risk (Service 2021b, pp. 57–58).

Despite the extirpation of some populations under the moderate energy development scenario, levels of redundancy remain high, with Graham's beardtongue maintaining 24 populations (Service 2021b, p. 60). Our evaluation of representation under this scenario indicates that Graham's beardtongue maintains a level of ecological diversity within the 24 remaining populations that is similar to its current condition and should have the adaptive capacity to tolerate projected, future climate and habitat conditions (Service 2021b, p. 60). The best available information does not indicate that the projected loss of the three Graham's beardtongue populations and projected plant loss in other populations would result in significant impacts to Graham's beardtongue's representation.

Under the high energy development scenario, the main stressors remain the same for Graham's beardtongue, but oil shale impacts result in more extensive plant and habitat loss in the center of the species' range than in the moderate energy development scenario (Service 2021b, Figure 13, pp. 53, 60–62). In this scenario, there is a projected loss of 45 percent of the total number of plants from energy development, with a remaining total population size of 30,794 individuals in 24 populations. Remaining occupied habitat and pollinator habitat are projected to be 6,037 ac (2,443 ha) and 63,580 ac (25,730 ha), respectively. The main stressors result in the extirpation of three populations and a decline in the condition of six populations compared to their current condition. The current population condition is maintained in the other 18 populations. Fourteen populations in good and moderate condition are large in size and have a low extinction risk. The species continues to occupy the extent of its current range, and all five range units continue to support populations in good or moderate condition (Service 2021b, pp. 60–62).

Despite the extirpation of populations, levels of redundancy remain high with Graham's beardtongue maintaining 24 populations (Service 2021b, p. 64). Our evaluation of representation indicates that Graham's beardtongue maintains a level of ecological diversity within the 24 remaining populations that is similar to its current condition and should have the adaptive capacity to tolerate future climate and habitat conditions (Service 2021b, p. 64). The best available information does not indicate that the projected loss of the three Graham's beardtongue populations and projected plant loss in other populations would result in significant impacts to Graham's beardtongues' representation.

White River Beardtongue

Under the moderate energy development scenario, oil shale is the main stressor for White River beardtongue, and this stressor is projected to result in loss of individual plants and habitat in the center of the species' range (Service 2021b, Figure 12, pp. 51, 57–59). In this scenario, there is a projected loss of 1 percent of the total number of plants from energy development, with a remaining total population size of 29,686 individuals in 16 remaining populations. Remaining occupied habitat and pollinator habitat are projected to be 3,218 ac (1,302 ha) and 26,959 ac (10,910 ha), respectively (Service 2021b, pp. 57–59). The main stressor results in the extirpation of one population and a decline in the condition of one population compared to their current condition. The current population condition is maintained in the other 15 populations. The species continues to occupy the extent of its current range, and all five range units continue to support populations in good or moderate condition. Eleven populations in good and moderate condition are large in size and have a low extinction risk (Service 2021b, pp. 57–59).

Despite the extirpation of one population under the moderate energy development scenario, levels of redundancy remain high with White

River beardtongue maintaining 16 populations (Service 2021b, p. 60). Our evaluation of representation indicates that White River beardtongue maintains a level of ecological diversity within the 16 remaining populations that is similar to its current condition and should have the adaptive capacity to tolerate future climate and habitat conditions (Service 2021b, p. 60). The best available information does not indicate that the projected loss of the one White River beardtongue population and projected plant loss in other populations would result in significant impacts to White River beardtongue's representation.

Under the high energy development scenario, the main stressor remains the same for White River beardtongue, but oil shale impacts result in more extensive plant and habitat loss in the center of the species' range than in the moderate energy development scenario (Service 2021b, Figure 14, pp. 54, 61–63). In this scenario, there is a projected loss of 24 percent of the total population from energy development, with a remaining total population size of 22,695 individuals in 15 populations. Remaining occupied habitat and pollinator habitat are projected to be 2,317 ac (938 ha) and 20,099 ac (8,134 ha), respectively (Service 2021b, pp. 61–63). The main stressor results in the extirpation of two populations and a decline in the condition of two populations compared to their current condition. The current population condition is maintained in the other 13 populations. Nine populations in good and moderate condition are large in size and have a low extinction risk. The species continues to occupy the extent of its current range, and all five range units continue to support populations in good or moderate condition (Service 2021b, pp. 61–63).

Despite the extirpation of populations, levels of redundancy remain high with White River beardtongue maintaining 15 populations (Service 2021b, p. 64). Our evaluation of representation indicates that White River beardtongue maintains a level of ecological diversity within the 15 remaining populations that is similar to its current condition and should have the adaptive capacity to tolerate future climate and habitat conditions (Service 2021b, p. 64). The best available information does not indicate that the projected loss of the two White River beardtongue populations and projected plant loss in other populations would result in significant impacts to White River beardtongue's representation.

The 2014 CA provides protections for the beardtongues on Federal and State lands until 2034. During this time, the beardtongues are afforded the same level of protections on Federal and State lands within designated conservation areas. The 2014 CA identifies 42,993 ac (17,399 ha) of designated conservation areas that protect 41 percent of the Graham's beardtongue population in 13 populations, and 66 percent of the White River beardtongue population in 11 populations (Service 2021b, pp. 43–46). Within designated conservation areas, protections include an avoidance buffer of 300 ft (91.4 m) between disturbance and beardtongue plants, as well as surface disturbance caps to restrict development. Surface disturbance caps would allow a limited amount of new construction for roads and traditional oil and gas development but would prohibit future oil shale and tar sand exploration and development (Service 2021b, pp. 43–46).

The beardtongues are also afforded protections on Federal lands outside of designated conservation areas, including a 300-ft (91.4-m) avoidance buffer, surface disturbance restrictions on steep slopes, areas that are unavailable for leasing or have NSO stipulations, and designated ACECs (Service 2021b, pp. 47–48). In total, the 2014 CA designated conservation areas and other conservation measures on Federal lands provide protections to 51 percent and 76 percent of the Graham's beardtongue and White River beardtongue total population, respectively (Service 2021b, p. 48).

Determination of Species Status

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

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

Since the publication of the August 6, 2013, proposed listing rule (78 FR 47590), and the subsequent reinstatement of that proposed rule following litigation, we prepared a comprehensive assessment of the current and future status of Graham's beardtongue and White River beardtongue as presented in the Biological Reports (Service 2021a, entire; 2021b, entire). The Biological Reports reexamined the threats identified in the 2013 proposed listing rule (energy exploration and development, as well as the cumulative impacts of livestock grazing, invasive weeds, small populations sizes, and climate change) using concepts from the Service's SSA framework (Service 2016, entire; Smith et al. 2018, entire). The Biological Reports also incorporate new information into our analysis that has become available since 2013, including updated monitoring information and the final 2014 CA and its 2018 addendum.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to Graham's and White River beardtongues, including: Energy exploration and development: Oil shale, tar sands, and traditional oil and gas drilling (Factor A); road construction (Factor A); herbivory (Factor C); invasive weeds (Factor A); small population size (Factor E); and climate change (Factors A and E). We also evaluated how existing regulatory mechanisms (Factor D) and other conservation measures (primarily the 2014 CA and 2018 addendum) may lessen the impacts of these stressors. The best available information does not indicate that overutilization (Factor B) is a threat to either beardtongue species.

Consideration of Cumulative Effects

Threats can work in concert with one another to cumulatively create conditions that may impact the Graham's and White River beardtongues or their habitat beyond the scope of each individual threat. We note that by using concepts from the SSA framework to guide our analysis of the scientific information documented in the Biological Reports, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our analysis when we characterize the current and future condition of the species. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then accumulates and evaluates the effects of all the factors

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

Consideration of Foreseeable Future

In considering the foreseeable future for Graham's beardtongue and White River beardtongue, we considered the available data regarding the factors that may influence both species into the future, including stressors, and conservation efforts or regulatory mechanisms that may provide protections. The primary driver of both species' condition into the future is energy development. We are able to make reliable predictions about the range of plausible future impacts of oil shale, tar sands, and traditional oil and gas through approximately 2030. Beyond 2030, based on input from experts, the impacts of energy development become too speculative to predict. Other stressors, including roads, livestock grazing, invasive weeds, and small population size, exert a cumulative effect on the beardtongues where they occur with energy development, and, therefore, we are similarly able to reliably predict their impacts on the species through approximately 2030. Climate change has the potential to exacerbate the effect of other stressors, including livestock grazing and invasive weeds, where they are present on the landscape. We have information on climate change, including projected changes in temperature, precipitation, and evaporative deficit out to 2070. However, we are not able to make reliable predictions about the species' responses to these changes out to 2070, since the species' expected responses to these variables are uncertain, and will depend on the presence and impacts of other stressors.

We also have information on various timescales to make reliable predictions about future protections that may be in place for both Graham's and White River beardtongues. The 2014 CA provides protections through designated conservation areas on Federal and State lands through 2034. Regulatory mechanisms are in place to provide for the State conservation areas (Utah Code 53C–2–202 and Utah Administrative Code R850–150) through 2034. Federal regulatory mechanisms, including a BLM sensitive species designation, and BLM RMP designations and stipulations, provide protections for the species through at least 2038. The 2014 CA conservation areas on private lands are expected to expire sooner, in 2029. A Uintah County Ordinance that provides for those areas also expires in 2029. Therefore, we did not include these private land conservation areas in our analysis of future conditions.

Overall, the primary drivers of the future status of Graham's beardtongue and White River beardtongue are energy development and the protections provided by the 2014 CA and other regulatory mechanisms on Federal and State lands. We have information to make reliable predictions about these factors, and the species' responses to them, through: 2030 for the threat of energy development, 2034 for the protections of the 2014 CA on Federal and State conservation areas, and 2038 for regulatory mechanisms on BLM lands. Therefore, the foreseeable future for this determination ranges from approximately 2030 to 2034, for the stressors and 2014 CA protections included in our future scenarios, to approximately 2038 for BLM regulatory mechanisms.

Graham's Beardtongue: Determination of Status Throughout All of Its Range

Our evaluation of the current condition of Graham's beardtongue found that there are currently tens of thousands of individual plants distributed across many populations that have good or moderate resilience to stochastic events. The species currently has a sufficient level of redundancy and representation to withstand catastrophic events and adapt to changes, with populations distributed across five range units. While some stressors have impacted individuals in localized areas, none are currently having population-level impacts individually or cumulatively. Therefore, we find that the species is not in danger of extinction throughout all of its range.

Our evaluation of the projected future condition of Graham's beardtongue found that there is very high uncertainty about the future likelihood of oil shale development. The future condition of Graham's beardtongue in 2030 may range anywhere from its current condition to the impacts projected in the high energy development scenario. However, the impacts projected under the high energy development scenario represent a worst-case scenario, which we expect is less likely to occur than the impacts projected under the moderate energy development scenario, or a continuation of current conditions. Although unlikely, even if we assume the high energy development scenario were to occur, the impacts of the stressors on Graham's beardtongue would be limited to three range units. Those three impacted range units would still have several populations in good or moderate condition, and over 30,000 individual plants would remain. In this scenario, Graham's beardtongue would also retain over 6,000 ac (2,428 ha) of occupied habitat and 63,000 ac (25,495 ha) of pollinator habitat. The 2014 CA would cap the total level of habitat that could be impacted within the foreseeable future. Therefore, even in this worst-case scenario, we anticipate that Graham's beardtongue would retain sufficient levels of resiliency, redundancy, and representation in the foreseeable future. Thus, after assessing the best available information, we conclude that the Graham's beardtongue is not in danger of extinction throughout all of its range nor is it likely to become so in the foreseeable future.

Graham's Beardtongue: Determination of Status Throughout a Significant Portion of Its Range

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

In undertaking this analysis for the Graham's beardtongue, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered or threatened. For the Graham's beardtongue, we considered whether the threats are geographically concentrated in any portion of the species' range at a biologically meaningful scale. We

examined the following threats: Energy development (oil shale, tar sands, and traditional oil and gas drilling) and the additional cumulative impacts of road construction, herbivory, invasive weeds, small population size, and climate change with energy development (Service 2021a, entire; 2021b, entire). We acknowledge that there are three range units (Units 2, 3, and 4) with potentially greater levels of impacts projected from oil shale in the foreseeable future, although the worst-case impacts of the high energy development scenario are less likely to occur than the impacts under the moderate energy development scenario or a continuation of current conditions. However, even if these worst-case projected impacts were to occur in Range Units 2, 3, and 4, several populations would remain in good or moderate condition in Range Units 2 and 3, and the one population in Range Unit 4 would remain in good condition. Based on the resiliency of these remaining populations, and their spread across these range units, we expect that adequate levels of resiliency, redundancy, and representation would remain in these units to protect again stochastic and catastrophic events and to adapt to future changes, and so, this portion of the range would not meet the definition of endangered or threatened. Therefore, no portion of the species' range can provide a basis for determining that the species is in danger of extinction now or likely to become so in the foreseeable future in a significant portion of its range, and we find the species is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. This is consistent with the courts' holdings in *Desert Survivors* v. *Department of the Interior,* No. 16–cv–01165–JCS, 2018 WL 4053447 (N.D. Cal. Aug. 24, 2018) and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d, 946, 959 (D. Ariz. 2017).

White River Beardtongue: Determination of Status Throughout All of Its Range

Our evaluation of the current condition of White River beardtongue found that there are currently nearly 30,000 individual plants distributed across many populations that have good or moderate resilience to stochastic events. The species currently has a sufficient level of redundancy and representation to withstand catastrophic events and adapt to changes, with populations distributed across five range units. In addition, the recent discovery of a new population in the Book Cliffs has expanded the species' known range. While some stressors have impacted individuals and habitat in localized areas, none are currently having population-level impacts. Therefore, we find that the species is not in danger of extinction throughout all of its range.

Our evaluation of the projected future condition of White River beardtongue found that there is very high uncertainty around the future of oil shale development. The future condition of White River beardtongue in 2030 may range anywhere from its current condition, to the impacts projected in the high energy development scenario. However, the impacts projected under the high energy development scenario represent a worst-case scenario, which we expect is less likely to occur than the impacts projected under the moderate energy development scenario, or a continuation of current conditions. Although unlikely, even if we assume the high energy development scenario were to occur, the impacts of the stressors on White River beardtongue are projected to be limited. Under this worst-case scenario, we expect that White River beardtongue would retain over 75 percent of individual plants and maintain the resiliency of the large populations. The 2014 CA is expected to protect the majority (66 percent) of plants across 11 populations into the foreseeable future. We also expect sufficient levels of redundancy and representation to remain across the range units, even though 2 out of 17 populations could be lost. Therefore, even in this worst-case scenario, we anticipate that White River beardtongue would retain sufficient levels of resiliency, redundancy, and representation in the foreseeable future. Thus, after assessing the best available information, we conclude that White River beardtongue is not in danger of extinction throughout all of its range nor is it likely to become so in the foreseeable future.

White River Beardtongue: Determination of Status Throughout a Significant Portion of Its Range

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

In undertaking this analysis for the White River beardtongue, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered or threatened. For the White River beardtongue, we considered whether the stressors are geographically concentrated in any portion of the species' range at a biologically meaningful scale. We examined the following stressors: Energy development (oil shale, tar sands, and traditional oil and gas drilling) and the additional cumulative impacts of road construction, herbivory, invasive weeds, small population size, and climate change with energy development (Service 2021a, entire; 2021b, entire). All of these potential stressors are relatively evenly distributed geographically throughout the range of the White River beardtongue. Our analysis projected that small areas of disturbance will occur within most range units but are expected to be spread throughout the range. We found no concentration of stressors in any portion of the White River beardtongue's range at a biologically meaningful scale. Therefore, no portion of the species' range can provide a basis for determining that the species is in danger of extinction now or likely to become so in the foreseeable future in a significant portion of its range, and we find the species is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. This is consistent with the courts' holdings in *Desert Survivors* v. *Department of the Interior,* No. 16–cv–01165–JCS, 2018 WL 4053447 (N.D. Cal. Aug. 24, 2018), and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d 946, 959 (D. Ariz. 2017).

Determination of Status

We have reviewed the best available scientific and commercial information

regarding the past, present, and future threats to the Graham's beardtongue and White River beardtongue, and we have determined that these species do not meet the definition of an ''endangered species'' or a ''threatened species'' in accordance with sections 3(6) and 3(20) of the Act. Because of this determination, we are withdrawing our August 6, 2013, proposed rule to list the Graham's beardtongue and White River beardtongue as threatened species (78 FR 47590). Accordingly, we are also withdrawing our August 6, 2013, proposed rule to designate critical habitat for the species (78 FR 47832).

References Cited

A complete list of references cited in this document and the Graham's and White River beardtongues Biological Reports are available on the internet at *https://www.regulations.gov* at Docket No. FWS–R6–ES–2019–0029 and upon request from the Utah Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this document are the staff members of the Utah Ecological Services Office and the Mountain-Prairie Regional Office.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Martha Williams,

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

[FR Doc. 2022–00485 Filed 1–12–22; 8:45 am]

BILLING CODE 4333–15–P