

Draft Amendment to the Recovery Plan for the Columbia Basin Distinct Population Segment of the Pygmy Rabbit (*Brachylagus idahoensis*)

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Species addressed in Draft Amendment: Pygmy Rabbit (*Brachylagus idahoensis*) Columbia Basin Distinct Population Segment (DPS)

We have analyzed all of the best available information and find that there is a need to amend the recovery criteria for the Columbia Basin DPS of the pygmy rabbit (*Brachylagus idahoensis*) that have been in place since the recovery plan was completed. In this proposed modification, we discuss the adequacy of the existing recovery criteria, identify amended recovery criteria, and present the rationale supporting the proposed recovery plan modification. The proposed modification is to be shown as an appendix that supplements the recovery plan, superseding only section III.C.2 “Removal from the List of Endangered and Threatened Wildlife and Plants” (USFWS 2012, p. 47).

BACKGROUND INFORMATION

Recovery plans should be consulted frequently, used to initiate recovery activities, and updated as needed. A review of the recovery plan and its implementation may show that the plan is out of date or its usefulness is limited, and therefore warrants modification. Keeping recovery plans current ensures that the species benefits through timely, partner-coordinated implementation based on the best available information. The need for, and extent of, plan modifications will vary considerably among plans. Maintaining a useful and current recovery plan depends on the scope and complexity of the initial plan, the structure of the document, and the involvement of stakeholders.

An amendment involves a substantial rewrite of a portion of a recovery plan that changes any of the statutory elements. The need for an amendment may be triggered when, among other possibilities: (1) the current recovery plan is out of compliance with regard to statutory requirements; (2) new information has been identified, such as population-level threats to the species or previously unknown life history traits, that necessitates new or refined recovery actions and/or criteria; or (3) the current recovery plan is not achieving its objectives. The amendment replaces only that specific portion of the recovery plan, supplementing the existing recovery plan, but not completely replacing it. An amendment may be appropriate in cases where significant plan improvements are needed, but resources are too scarce to accomplish a full recovery plan revision in a short time.

Although it would be inappropriate for an amendment to include changes in the recovery program that contradict the approved recovery plan, it could incorporate study findings that enhance the scientific basis of the plan, or that reduce uncertainties as to the life history, threats, or species’ response to management. An amendment could serve a critical function while awaiting a more comprehensive revised recovery plan by: (1) refining and/or prioritizing recovery actions that need to be emphasized, (2) refining recovery criteria, or (3) adding a

species to a multispecies or ecosystem plan. An amendment can, therefore, efficiently balance resources spent on modifying a plan against those spent on managing implementation of ongoing recovery actions.

METHODOLOGY USED TO COMPLETE THE RECOVERY PLAN AMENDMENT

This amendment refines the Service's 2012 recovery criteria (which contained only downlisting criteria) by adopting delisting criteria from the Washington State Recovery Plan for the Pygmy Rabbit (Washington Department of Fish and Wildlife (WDFW) Recovery Plan; WDFW 1995). The criteria for reclassification from endangered to threatened status (downlisting) remain unchanged (see USFWS 2012 p. 45-47).

Per the WDFW Recovery Plan (WDFW 1995, p. i) their draft recovery plan was reviewed by pygmy rabbit researchers and State and Federal agencies prior to being made available for a 90-day public review. All comments received were considered in preparation of the final recovery plan (WDFW 1995, p. 56-73).

ADEQUACY OF RECOVERY CRITERIA

Section 4(f)(1)(B)(ii) of the Endangered Species Act (Act) requires that each recovery plan shall incorporate, to the maximum extent practicable, "objective, measurable criteria which, when met, would result in a determination...that the species be removed from the list." Legal challenges to recovery plans (see *Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995)) and a Government Accountability Audit (GAO 2006) also have affirmed the need to frame recovery criteria in terms of threats assessed under the five listing factors.

Recovery Criteria

See previous version of criteria in recovery plan (USFWS 2012, p. 45-47).

Synthesis

The Columbia Basin DPS of Pygmy Rabbit (Columbia Basin Pygmy Rabbit) was emergency-listed as endangered in 2001 and received final endangered status in 2003. A 5-year review was conducted in 2010 and a final recovery plan was completed in 2012. The Washington Department of Fish and Wildlife has an ongoing status review that will be finalized in 2018 (WDFW 2017). While the numbers, distribution, and on-the-ground management of the Columbia Basin pygmy rabbit has changed over time, the threats remain the same.

Captive breeding of the last remaining wild Columbia Basin pygmy rabbits began in 2002 at Washington State University and the Oregon Zoo and later at Northwest Trek Wildlife Park (Becker *et al.* 2011; USFWS 2012). The breeding program was implemented to retain the different genetic characteristics of the purebred Columbia Basin population; however, these rabbits likely suffered from severe inbreeding depression, and had a significantly diminished reproduction potential and were unable to produce enough offspring for anticipated reintroduction efforts. In 2003, purebred Columbia Basin pygmy rabbits were intercrossed with Idaho pygmy rabbits, resulting in increased genetic diversity and improved reproduction of captive rabbits; however, mortality of young remained high and high rates of infection and mortality of both adults and juveniles due to disease was observed (Becker *et al.* 2011; USFWS 2010; USFWS 2012). In 2011, the off-site captive breeding program was deemphasized and

transitioned to semi-wild breeding within large enclosures and subsequent capture and release of suitable numbers of kits for release into the wild (USFWS 2012). From fall 2011 through spring 2013, 109 pygmy rabbits were translocated from Nevada, Utah, Oregon, and Wyoming and placed in 1 of the 4 breeding enclosures with the remaining captive-bred adults and kits (WDFW 2017). Animals in the enclosures have produced over 2,000 kits since the 2011 breeding season, most of which have been released to the wild at the Sagebrush Flats Wildlife Area (SFWA) and to a lesser degree, the Beezely Hills Recovery Emphasis Area (WDFW 2018). A third release site has been identified at the Dormier/Burton Draw Unit of the SFWA.

In June 2017, the Sutherland Canyon wildfire burned 30,000 acres of shrub-steppe habitat within the Beezely Hills Recovery Emphasis Area and swept through the 10-acre breeding enclosure and 3 release pens. Fire-related mortality claimed 80 rabbits, including all 26 kits released in the net pens, 48 rabbits (15 adults, 22 kits, 11 unknown) recovered dead within the 10-acre breeding enclosure, and an additional 6 rabbits that were recovered alive but subsequently died. Thirty-two rabbits (4 adults, 28 kits) survived and were transferred to the other 3 enclosures. Releases were suspended for 2017 (WDFW 2017).

Many rabbits released on the SFWA have migrated to adjacent shrub-steppe habitat enrolled in the Conservation Reserve Program (CRP). These properties will likely be important for recovery of the species. Annual survival of the released animals varies, but has been as high as 30 percent and reproduction of fully wild animals has been documented. Currently there are 250 animals estimated in the population adjacent to the SFWA (WDFW 2018). Monitoring of the wild Columbia Basin pygmy rabbits at the SFWA and Beezely Hills is ongoing. While the population status and management strategies have changed over time, the threats to the species have remained consistent (WDFW 1995; WDFW 2017; USFWS 2010; USFWS 2012).

AMENDED RECOVERY CRITERIA

Recovery criteria serve as objective, measurable guidelines to assist in determining when an endangered species has recovered to the point that it may be downlisted to threatened, or that the protections afforded by the Act are no longer necessary, and the Columbia Basin pygmy rabbit may be delisted. Delisting is the removal of a species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Downlisting is the reclassification of a species from endangered to threatened. The term “endangered species” means any species (species, subspecies, or DPS) which is in danger of extinction throughout all or a significant portion of its range. The term “threatened species” means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Downlisting Recovery Criteria

The criteria for downlisting Columbia Basin pygmy rabbit remain the same as those described in the recovery plan (USFWS 2012, p. 45-46).

Delisting Recovery Criteria

We provide new delisting criteria for the Columbia Basin pygmy rabbit, which will supersede those included in the Recovery Plan for the Columbia Basin Distinct Population Segment of the Pygmy Rabbit (USFWS 2012).

The amended delisting criteria are adopted from the Washington State Recovery Plan for the Pygmy Rabbit (Becker *et al.* 2011, WDFW 1995, WDFW 2017). The Columbia Basin pygmy rabbit will be considered for delisting given:

1. A minimum 5-year average of at least 2,800 adult Columbia Basin pygmy rabbits in at least 12 populations. Of these, at least 4 populations have 500 or more adults each and at least 8 populations have 100 or more adults each.
2. Habitat security for the 12 populations has been established (WDFW 1995, p. 25).

In addition to the downlisting and delisting criteria, all classification decisions consider an analysis of the following five factors: (1) is there a present or threatened destruction, modification, or curtailment of the species' habitat or range; (2) is the species subject to overutilization for commercial, recreational scientific or educational purposes; (3) is disease or predation a limiting factor; (4) are there inadequate existing regulatory mechanisms in place outside the Act (taking into account the efforts by states and other organizations to protect the species or habitat); and (5) are other natural or manmade factors affecting its continued existence. When delisting or downlisting a species, we first propose the action in the *Federal Register* and seek public comment and peer review of our analysis. Our final decision is announced in the *Federal Register*.

Rationale for Recovery Criteria

The WDFW addressed the threats to the Columbia Basin pygmy rabbit at the time of development of their recovery plan, and the threats are consistent with those addressed in the Service's recovery plan (USFWS 2012). Threats to the Columbia Basin pygmy rabbit were classified according to five factors identified in section 4(a)(1) of the Act for consideration in listing, reclassification, and delisting decisions. The available information addressing each of the five factors, and how these threats were considered in development of recovery actions, is summarized in the Service's recovery plan (USFWS 2012, pp. 13-23). The current downlisting criteria, and new delisting criteria, contribute to addressing the threats.

Large-scale loss and fragmentation of native shrub-steppe habitats, primarily for agricultural development, likely played a role in the long-term decline of the Columbia Basin pygmy rabbit (USFWS 2012, p. 13). However, it is unlikely that these factors alone directly influenced the eventual extirpation from the wild. Once a population declines below a certain threshold, it is at risk of extirpation from a number of influences including chance environmental events, catastrophic habitat loss or resource failure, predation, disease, demographic limitations, loss of genetic diversity, and inbreeding depression (USFWS 2012, p. 22-23). While we currently have higher populations and more successful management methods (breeding enclosures, etc.) the population remains small, its distribution in the wild is limited, and current threats to Columbia Basin pygmy rabbit remain the same as those previously considered (USFWS 2010; WDFW 1995; WDFW 2017).

Columbia Basin pygmy rabbits in Washington are geographically isolated. Viability for this isolated population, barring human intervention, will be dependent upon maintaining adequate numbers and interaction between subpopulations within Washington (WDFW 1995, p. 25). As

stated in the WDFW recovery plan (WDFW 1995, p. 26) the delisting criteria, which call for a minimum of 2,800 adult pygmy rabbits, are consistent with current theory concerning minimum population size needed to maintain genetic variability to allow for adaptation to long-term environmental change. The criteria, which call for geographically separated habitat areas, provide greater security from devastating effects of epidemics, fire, and other disasters. Relatively small subpopulations of 100 or more adult rabbits are considered large enough to be resilient over the short term (decades). Resilience refers to the short-term ability of a population to survive in the face of normal, random birth and death events (demographic stochasticity). Populations of this size should also be able to retain sufficient genetic variation to maintain normal fecundity and viability. Including these smaller populations in the recovery criteria provides additional security against extirpation and facilitates a realistic strategy for establishing pygmy rabbits over much of their former range in the State. These smaller populations will take advantage of opportunities to establish pygmy rabbits in smaller habitat areas. These populations will be relatively secure in the short term (decades) and provide additional source populations should disease, fire or other factors eliminate other Washington populations.

LITERATURE CITED

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