

Changes in Bull Trout Recovery Criteria

June 2015

We originally described the recovery criteria for bull trout in the revised draft recovery plan published in September 2014 (see pages 45-46). After reviewing public comment on these criteria, we plan to modify these criteria in the final recovery plan. This document describes our current proposed recovery criteria as of June 2015, how the criteria have changed from those previously published in the revised draft recovery plan, and our rationale for the change. We invite public comment on the proposed recovery criteria, and will consider all comments in development of the final recovery plan.

The proposed recovery criteria represent our best assessment of the conditions that would most likely result in a determination that listing under the Act is no longer required. For bull trout, these conditions will be met when conservation actions have been implemented to ameliorate the primary threats in suitable habitats. If the primary threats have been effectively managed in each recovery unit, the long-term persistence of bull trout should be ensured.

We have modified the recovery criteria somewhat from those presented in the September 2014 revised draft recovery plan. The Columbia Headwaters Recovery Unit contains 20 simple core areas with a single local population, generally associated with small, high-elevation mountain lakes, and 15 complex core areas, which contain multiple local populations and are more geographically extensive. Concern has been expressed that the 75 percent threshold could allow this recovery unit to meet the criteria without effectively managing threats in many of the complex core areas, potentially compromising the goal of retaining broad geographic distribution throughout the recovery unit. At the same time, simple core areas contain long-isolated, genetically differentiated bull trout populations and contribute to conservation of cold water habitat and genetic diversity. Therefore we propose addressing complex and simple core areas separately for this recovery unit.

Recovery Criteria:

The Service may initiate an assessment of whether recovery has been achieved and delisting is warranted when the following has been accomplished in each recovery unit:

- **[Original text from September 2014 draft revised recovery plan]** For the Coastal, Mid-Columbia, Upper Snake, and Columbia Headwaters Recovery Units: Primary threats are effectively managed in at least 75 percent of all core areas, representing 75 percent or more of bull trout local populations within each of these four recovery units (as identified in Appendix B and Table 2).

[As modified in 2015, removing Columbia Headwaters] For the Coastal, Mid-Columbia, and Upper Snake Recovery Units: Primary threats are effectively managed in at least 75

percent of all core areas, representing 75 percent or more of bull trout local populations within each of these four recovery units (as identified in Appendix B and Table 2).

- **[New criterion text for Columbia Headwaters added in 2015]** For the Columbia Headwaters Recovery Unit: Primary threats are effectively managed in at least 75 percent of all complex core areas, representing 75 percent or more of bull trout local populations in complex core areas within this recovery unit; and at least 75 percent of simple core areas within this recovery unit (as identified in Appendix B and Table 2).

- **[Criterion not changed from September 2014 draft revised recovery plan]** For the Klamath and Saint Mary Recovery Units: All primary threats are effectively managed in all existing core areas, representing all existing local populations. In addition, because 9 of the 17 known local populations in the Klamath Recovery Unit have been extirpated and others are significantly imperiled and require active management, we believe that the geographic distribution of bull trout within this recovery unit needs to be substantially expanded before it can be considered to have met recovery goals. To achieve recovery, we seek to add seven additional local populations distributed among the three core areas (two in the Upper Klamath Lake core area, three in the Sycan core area, and two in the Upper Sprague core area) (see Appendix B and Table 2).

- **[Criterion not changed from September 2014 draft revised recovery plan]** In recovery units where shared FMO habitat outside core areas has been identified (Appendix G), connectivity and habitat in shared FMO areas should be maintained in a condition sufficient for regular bull trout use and successful dispersal among the connecting core areas for those core areas to meet the criterion. Shared FMO areas that function sufficiently to meet the criterion should provide the primary constituent elements of critical habitat specific to migration habitat.

Table 2. Proposed Recovery (Delisting) Criteria: For each recovery unit, number of core areas (and local populations) where threats must be effectively managed; reaching this ‘threshold’ would initiate the delisting evaluation process.

Recovery Unit	Existing		Threshold	
	Total Number of Extant Core Areas	Total Number of Local Populations within Extant Core Areas	Minimum Number of Core Areas with Threats Effectively Managed	Minimum Number of Local Populations within Effectively Managed Core Areas
Coastal RU	21	85	16	64
Mid-Columbia RU	24	142	18	107
Upper Snake RU	22	207	17	156
Columbia Headwaters RU (simple core areas)	20	20	15	15
Columbia Headwaters RU (complex core areas)	15	143	12	108
Klamath RU*	3	8	3*	8*
Saint Mary RU	4	8	4	8

*Klamath RU threshold 100 percent of existing local populations, plus additional reintroductions.

Counts of core areas and local populations for each recovery unit are based on data tabulated in the six draft RUIPs.