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RE: Amended Notice of Intent to Sue U.S. Fish and Wildlife for Its Failure to Comply with the Requirements of Section 4 of the Endangered Species Act When Developing and Issuing the Recovery Plan for the Coterminous United States Population of Bull Trout

Dear Sirs and Mesdames:

This letter amends the earlier notice of the intent to sue the U.S. Fish & Wildlife Service (FWS) for violations of Section 4 of the Endangered Species Act (ESA), 16 U.S.C. 1536 sent on October 31, 2016.^{1,2} The original notice letter regarded violations arising from FWS's failure to

¹ This letter is sent by the undersigned on behalf of the Burns Paiute Tribe. The contact information for the tribe's designated representative is provided at the end of this letter.

² Substantive amended text is presented in **bold**.

comply with the requirements imposed by Section 4 of the ESA when developing and issuing the "Recovery Plan for the Coterminous United States Population of Bull Trout (*Salvelinus confluentus*)." 80 Fed. Reg. 58767 (Sept. 30, 2015). In developing the Bull Trout Recovery Plan (Recovery Plan or Plan) and the six associated Recovery Unit Implementation Plans (RUIPs), the original notice letter stated that FWS violated the ESA by (1) excluding designated critical habitat; (2) failing to develop a plan for bull trout conservation; (3) failing to establish criteria that are objective and measureable and to explain the basis for its change of approach; (4) failing to provide a legal basis for the "75 Percent" recovery criteria; (5) failing to establish the required time and cost estimates; and (6) failing to use the best available science and to consider relevant information about climate change.

In addition to the violations set forth in the original notice letter, this amended letter puts FWS on notice that it violated Section 4 of the ESA when it constructively revised designated critical habitat. This amendment also notifies FWS that it violated Section 7 of the ESA by failing to insure that the Recovery Plan does not result in the destruction or adverse modification of critical habitat. This notice is provided pursuant to Section 11(g) of the ESA, 16 U.S.C. 1540(g).

The Burns Paiute Tribe (BPT) is a sovereign nation and a federally-recognized Indian tribe with a reservation in Oregon. Bull trout hold a special economic and cultural significance to the BPT, and the tribe has worked for many years to ensure the recovery of the species. The BPT holds aboriginal title to over 5,250 square miles within central-eastern Oregon and western Idaho. With FWS and other federal, state and tribal entities, the BPT is a co-manager of fish and wildlife resources, including the bull trout. The BPT directly manages approximately 8,000 acres of property on the Malheur River including eight miles of designated bull trout critical habitat. Additionally, the tribe implements bull trout recovery actions occurring on public land in consultation with the Oregon Department of Fish and Wildlife, FWS, the U.S. Forest Service and the U.S. Bureau of Reclamation. The BPT objects to several parts of the Recovery Plan. As detailed below, FWS has violated the ESA in numerous respects, and in so doing, has failed to ensure the conservation of an important resource for the BPT.

LEGAL BACKGROUND

The ESA was enacted to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved," 16 U.S.C. 1531(b), and "a program for the conservation of such endangered species and threatened species." *Id.* It requires "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary." *Id.* 1532(3). The Supreme Court has described the ESA as "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).

The ESA instructs FWS to "develop and implement [recovery plans] for the conservation and survival of endangered species and threatened species." 16 U.S.C. 1533(f)(1). The statute defines "conservation" as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." *Id.* 1532(3). Recovery plans provide the

framework and “process by which listed species and their ecosystems are restored and their future is safeguarded to the point that protections under the ESA are no longer needed.” Nat'l Marine Fisheries Serv. & U.S. Fish & Wildlife Serv., Interim Endangered and Threatened Species Recovery Planning Guidance Version 1.3 1.1-1 (2010). When developing recovery plans, FWS must, “to the maximum extent practicable,” incorporate into each plan “a description of such site-specific management actions as may be necessary to achieve the plan’s goal for the conservation and survival of the species,” “objective, measurable criteria, which, when met, would result in a determination, in accordance with the provisions of [Section 4 of the ESA], that the species be removed from the list,” and “estimates of the time required and the cost to carry out those measures needed to achieve the plan’s goal and to achieve intermediate steps toward that goal.” 16 U.S.C. 1533(f)(1)(B)(i)-(iii).

In addition to the development and implementation of recovery plans, the ESA also requires the designation of habitat that is considered “critical habitat” for listed species. 16 U.S.C. 1533(a)(3)(A). The ESA defines critical habitat as “the specific areas within the geographical area occupied by the species at the time it is listed. . . . , on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection,” and the “specific areas outside the geographical area occupied by the species at the time it is listed . . . , upon a determination by the Secretary that such areas are essential for the conservation of the species.” *Id.* 1532(5)(A). **Critical habitat may be revised after it is designated. *Id.* at 1533(a)(3)(A)(ii). However, FWS may only revise critical habitat “on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact...” *Id.* at 1533(b)(2). Also, FWS must provide notice and comment regarding the revision of critical habitat. *See id.* at 1533(b)(5)–(6)(A)(i). Finally, FWS must “insure that any action authorized, funded, or carried out by [it] is not likely to ... result in the destruction or adverse modification of habitat of such species.” *Id.* at 1536(a)(2). “Destruction or adverse modification” is defined by joint FWS and National Marine Fisheries Service regulation as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.” 50 C.F.R. 402.02.**

FACTUAL AND PROCEDURAL BACKGROUND

A. Bull Trout and Their Decline

Bull trout are members of the char subgroup of the *Salmonidae* family and are native to waters of Western North America. Bull Trout Listing Determination, 64 Fed. Reg. 58910-01, 58911 (Nov. 1, 1999). Bull trout have more specific habitat requirements than most other salmonids. They require waters that have low temperatures, wood debris, specific spawning and rearing substrate, and migratory corridors. *Id.* Bull trout once extended from California to Canada and Washington to Montana. *Id.* Today, bull trout have been completely extirpated in California and only inhabit a small fraction of their historic range. *Id.*

On November 1, 1999, FWS listed as threatened all populations of bull trout in the coterminous United States. *Id.* According to the listing decision, the bull trout had lost a considerable amount of its range. *Id.* Today, in the areas where bull trout continue to exist, they are confined mostly to upper tributary streams and certain lake and reservoir systems. U.S. Fish & Wildlife Serv., What is a Bull Trout?, available at <https://www.fws.gov/pacific/news/1997/btfacts.htm> (last visited Oct. 28, 2016).

There are many causes of bull trout decline. In the 1999 listing decision, FWS determined that bull trout decline was due to “habitat degradation, fragmentation, and alterations associated with dewatering, road construction and maintenance, mining and grazing; the blockage of migratory corridors by dams or other diversion structures, poor water quality, incidental angler harvest; entrainment into diversion channels, and introduced non-native species.” 64 Fed. Reg. 58910-01. Over time, scientists and FWS have gathered additional information about the factors contributing to the peril of bull trout. Recovery Plan at 18. In addition to the above-listed threats, scientists and FWS have identified climate change as a major danger to bull trout. *Id.* at 17–19; see also B.E. Rieman et al., Anticipated Climate Warming Effects on Bull Trout Habitats and Populations Across the Interior Columbia River Basin, Transactions of the American Fisheries Society 136:1552-1565 (2007); S.J. Wegner et al., Role of Climate Change and Invasive Species in Structuring Trout Distributions in the Interior Columbia River Basin, USA, Canadian Journal of Fisheries and Aquatic Sciences 68:988-1008 (2011); J.B. Dunham et al., Influences of Temperature and Environmental Variables on the Distribution of Bull Trout Within streams at the Southern Margin of its Range, North American Journal of Fisheries Management 23: 894-904 (2003). As FWS notes, recent studies find that water temperatures have increased throughout the bull trout’s range and, in some basins, “site extirpations exceeded site colonizations and were more frequent at warm, low elevation sites.” Recovery Plan at 18 (citing L.A. Eby et al., Evidence of Climate-Induced Range Contractions in Bull Trout *Salvelinus Confluentus* in a Rocky Mountain Watershed, U.S.A., PLoS ONE ((6): e98812. Doi:10.1371/journal/pone.0098812 (2014)). FWS summarizes such findings in the Recovery Plan, stating that they “suggest that a warming climate already may be affecting some suitable bull trout instream habitats” and that they are consistent with other studies that “predicted warming effects could result in substantial loss of suitable bull trout habitats over the next several decades.” Recovery Plan at 18. According to FWS, “[b]ull trout are vulnerable to the effects of warming climates, changing precipitation and hydrologic regimes, and are considered a useful indicator species of the effects climate change will have on the mountainous stream ecosystems where they reside.” *Id.* at 17.

B. Designation of Critical Habitat

On October 18, 2010, FWS issued a final critical habitat designation for bull trout. Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States, 75 Fed. Reg. 63898 (Oct. 18, 2010). The designation included 19,729 miles of streams in Montana, Idaho, Washington, Oregon, and Nevada; 754 miles of marine shoreline in Washington; and 488,251.7 acres of reservoirs and lakes in Montana, Idaho, Washington, and Oregon. *Id.* Consistent with the ESA’s definition of critical habitat, FWS determined these critical habitat areas “essential to the conservation” of bull trout and therefore necessary to bring the species to the point at which the measures provided pursuant to this chapter are no longer necessary. *Id.* at 63901, 63926.

C. Recovery Plan and Recovery Unit Implementation Plans

On September 30, 2015, FWS issued the Bull Trout Recovery Plan along with six RUIPs. 80 Fed. Reg. 58,767. The Recovery Plan summarizes FWS's plan for bull trout recovery, and the individual RUIPs provide site-specific information and actions for each of the six corresponding recovery units. Within each RUIP, the Plan delineates "core areas" that contain bull trout populations. FWS defines "core areas" as "[t]he combination of core habitat (i.e., habitat that could supply all elements for the long-term security of bull trout) and a core population (a group of one or more local bull trout populations that exist within core habitat)." Recovery Plan at iii. FWS deems core areas "the basic unit on which to gauge recovery within a recovery unit." *Id.*

Central to the Recovery Plan are its "criteria" for determining when delisting of bull trout may be warranted. FWS links these recovery criteria to management of "primary threats" to bull trout, explaining that delisting may be warranted when "sufficient conservation actions have been implemented to ameliorate the primary threats in suitable habitats." *Id.* at vii. The Plan defines primary threats as "[f]actors known or likely (i.e., non-speculative) to negatively impact bull trout populations at the core area level, and accordingly require management actions to assure bull trout persistence to a degree necessary that bull trout will not be at risk of extirpation within that core area in the foreseeable future (50 years)." *Id.* at v n.2.

For each of the six recovery units and their corresponding core areas, the Plan establishes specific recovery criteria. These include:

- 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 three recovery units.
- For the Columbia Headwaters Recovery Unit: Primary threats are effectively managed in 75 percent of simple core areas and 75 percent of complex core areas, representing 75 percent or more of bull trout local populations in both simple and complex core areas.
- 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, in the Klamath Recovery Unit, because 9 of 17 known local populations have already been extirpated and the remainder are significantly imperiled and require active management of threats, effective threat management is necessary in 100 percent of core areas, and the geographic range of bull trout within this recovery unit will need to be expanded through reestablishment of extirpated local populations.
- In recovery units where shared [Foraging, Migration, and Overwintering (FMO)] habitat outside core areas has been identified, 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.

Id. at vii. According to the Recovery Plan, if and when primary threats are managed at these levels, "the long-term persistence of bull trout should be ensured," and delisting may be warranted. *Id.* As the Plan acknowledges, this use of threats management as recovery criteria is a

change from the 2002 and 2004 draft bull trout recovery plans that FWS developed for bull trout, which used demographic values in the recovery criteria. *Id.* at 2. The Plan explains that it will use “recovery criteria revised from those proposed in the 2002 and 2004 draft recovery plans to focus on effective management of threats...and de-emphasize achieving target point estimates of abundance of bull trout (demographics) in each core area.” *Id.* In Appendix E of the Recovery Plan, FWS presents the “Assessment Tool for Describing Effective Management of Threats in Bull Trout Core Areas and Six Recovery Units that Comprise the Coterminous Population of Bull Trout.” *Id.* at 146–63. It explains that the goal of the assessment tool is “to objectively evaluate the status of threats affecting bull trout across the range of the species,” and explains that the tool “incorporates the best available data and scientific expert opinion participation.” *Id.* at 146. According to FWS, “[t]he results from this assessment tool will be integral to evaluate the status of bull trout at the range-wide and recovery unit scales based on the analysis of threat management effectiveness at the core area level.” *Id.* Moreover, “[t]hese core area assessments should also serve as a primary metric to assess the species’ status in 5-year reviews and five-factor threats analyses that are initiated in the future, including any delisting evaluations.” *Id.* Also, “[a]dditional ‘metrics’ that will be important in future status reviews include evidence of demographically stable populations of bull trout” in addition to other factors. *Id.*

Notably, the Plan states that FWS could deem the species recovered even when *additional populations have been extirpated.* *Id.* at vi-vii. FWS claims that “a small number of [core area] extirpations might occur without preventing recovery if threats are successfully managed in most core areas.” *Id.* at 113.

D. The Burns Paiute’s Relationship to Bull Trout and Efforts to Conserve Them

The loss of bull trout has taken a toll on the Indian tribes in the American West that have historically counted on fish like bull trout to provide food in times of need. Because bull trout hold cultural, spiritual, and economic significance to the BPT, species recovery is of great importance to the tribe.

Since the 1999 listing of bull trout, the BPT has assumed a local leadership role in monitoring both the health of bull trout in the Malheur River in Oregon as well as the response of local communities to government recovery actions. The tribe has helped in the coordination of state, federal and tribal actions towards bull trout recovery in an effort to ensure that actions address primary threats, maximize benefit per dollar spent, and implement multi-jurisdictional projects that are scientifically sound. Recent BPT management actions cover the two Malheur River Core Areas in the Upper Snake River Recovery Unit.

As evidenced by the nearly two decades of fiscal commitment that the BPT has allocated towards agency coordination, and enhancement and monitoring of these populations, the continued existence, demographic recovery and future viability of bull trout populations is a high priority for the BPT. The tribe has invested at least \$7.5 million for mitigation into recovery actions for bull trout and the restoration of habitat for the species in the Malheur River. This figure does not include soft monies that the BPT has procured to cost share its programmatic efforts towards bull trout recovery, including dollars granted by FWS to the tribe for this purpose.

During the development of the Recovery Plan, the BPT assisted in establishing a coalition with four other Columbia Basin tribes to improve the framework developed by the

state-federal management teams, which had previously excluded all tribes with management authority over native fish populations in the region. The management jurisdiction of the five-tribe coalition covers vast portions of the Columbia Headwaters, Mid-Columbia and Upper Snake River Recovery Units. These tribes conduct substantial monitoring and recovery actions and seek an equal voice in establishing recovery targets for the bull trout.

Despite the high level of tribal coordination and despite the numerous rounds of written comment and work sessions, FWS has not addressed many of the tribal coalition's concerns with its approach to bull trout recovery. As a result, the Recovery Plan and RUIPs do not sufficiently protect the bull trout, nor do they build upon the multi-million dollar investments of tribal management actions towards the viability of this species across the Columbia River Basin.

For the reasons set forth below, FWS's Recovery Plan, including the RUIPs, are unlawful.

ESA VIOLATIONS

As set out below, we have identified multiple, specific ESA violations in the Recovery Plan. Most if not all of those violations share a common, fundamental problem. When bull trout were originally listed, FWS specifically based its listing decision, in part, on its finding that the species had already disappeared from a large percentage of its historic range and was sliding downwards towards oblivion. Now, in its Recovery Plan, FWS has decided that it will deem the species recovered even if it has continued that slide downwards and is persisting in even less of its historic range than when it was originally listed. That conclusion defies common sense and the express requirements of the ESA.

A. Exclusion of Designated Critical Habitat from Recovery Planning.

The Recovery Plan conflicts with and undermines FWS's 2010 critical habitat designation for bull trout. In 2010, FWS stated that "[t]he decline of bull trout is primarily due to habitat degradation and fragmentation, blockage of migratory corridors, poor water quality, past fisheries management practices, impoundments, dams, water diversions, and the introduction of nonnative species." Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States, 75 Fed. Reg. 63898 (Oct. 18, 2010). Critical habitat was designated in order to combat those threats. To delineate these areas, FWS "used the best available scientific information available to include occupied critical habitat with the features essential to the conservation of the species, as well as unoccupied areas also essential to the conservation of the bull trout." *Id.* at 63901. Ultimately, FWS determined that "[a]ll areas designated as critical habitat ... are essential to the conservation of the species, based on the best available information." *Id.* Indeed, the designated critical habitat marks "the extent of critical habitat needed to conserve the species." *Id.* at 63910.

The ESA states that recovery plans are developed and implemented "for the *conservation* and survival of endangered species and threatened species." 16 U.S.C. 1533(f)(1) (emphasis added), and critical habitat is "essential to the conservation of the species." *Id.* 1532(5)(A)(i). Furthermore, "the purpose of establishing 'critical habitat' is for the government to carve out territory that is not only necessary for the species' survival but also essential for the species' recovery." *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th

Cir. 2004), *amended sub nom. Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 387 F.3d 968 (9th Cir. 2004). Therefore, the plain meaning of the ESA and Ninth Circuit precedent require recovery plans to include all designated critical habitat as it has already been deemed “essential to the conservation of the species.” 16 U.S.C. 1532(5)(A)(i).

Ignoring these clear and complimentary mandates, the Bull Trout Recovery Plan excludes a significant portion of designated critical habitat from the “core areas” where FWS has established the site-specific goals for bull trout conservation and recovery. In this way, FWS failed to explain why areas it previously determined essential to the recovery of bull trout are not part of the Recovery Plan.

In fact, the Recovery Plan’s reliance on “core areas” necessarily *excludes* all unoccupied critical habitat. Core areas are defined as a “combination of core habitat (i.e., habitat that could supply all elements for the long-term security of bull trout) and a core population (a group of one or more local bull trout populations that exist within core habitat).” Recovery Plan at iii. As such, all unoccupied habitat is excluded as it, by definition, lacks a “core population.” This disregard of unoccupied critical habitat is in direct opposition to FWS’s previous determination that unoccupied critical habitat is essential to the conservation and recovery of bull trout, and that “[o]ne of the greatest conservation benefits of critical habitat is the designation of unoccupied habitat that is essential to the conservation” of bull trout. 75 Fed. Reg. 63903.

To the degree that the Recovery Plan addresses excluded critical habitat, it fails to provide site-specific management actions necessary to achieve the Recovery Plan’s goal of conserving bull trout. In a misleading explanation, FWS states that “[i]n recovery units where shared FMO [(foraging, migration, and overwintering)] habitat outside of core areas has been identified, 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.” *Id.* at vii; *see also id.* at 47, 98, 161. Not only does this statement fail to specifically address critical habitat, it also fails to provide site-specific management actions, in contravention of Section 4 of the ESA. FWS provides insufficient guidance on how actors on the ground should protect, maintain, and restore habitat already determined to be essential for the conservation of bull trout.

In addition, the Recovery Plan excludes significant tracts of critical habitat when it sets the recovery criteria at level where primary threats are managed in “75 percent of all core areas” in the Coastal, Mid-Columbia, Upper Snake Recovery and the Columbia Headwaters Units. *Id.* at vii. By this metric, FWS could find the bull trout recovered even when unoccupied critical habitat is not protected and when a *further* 25% of all critical habitat is lost. This determination contradicts both the plain language of the ESA which states that designated critical habitat is “essential to the conservation of the species,” 16 U.S.C. 1532(5)(A)(i), and FWS’s previous statement that “[a]ll ... critical habitat ... [is] essential to the conservation of [bull trout] based on the best available science.” 75 Fed. Reg. 63901.

FWS cannot ignore its previous determination that all critical habitat to be essential to the conservation of the bull trout in the Recovery Plan. The ESA and its implementing regulations explicitly set out a process for revising critical habitat determinations. *See* 16 U.S.C. 1533(a)(3)(a)(ii); *see also* Listing Endangered and Threatened Species and Designating Critical Habitat; Implementing Changes to the Regulations for Designating Critical Habitat, 81 Fed. Reg.

7414, 7418–19 (Feb. 11, 2016) (“The designation of critical habitat results in a regulation in which the boundaries of critical habitat for a species are defined. These boundaries can be changed *only through rulemaking*. Thus, ... the areas within the boundaries of critical habitat are still critical habitat until such time as a revision to the designation is promulgated.”) (emphasis added). **By excluding significant tracts of critical habitat, FWS effectively revised its earlier critical habitat designation for bull trout. However, it failed to notify the public of this constructive revision of critical habitat, as required by the ESA, 16 U.S.C. 1533(b)(5)–(6)(A)(i), and it failed to base its revision on “the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact....”** *Id.* at 1533(b)(2).

Additionally, by excluding significant tracts of critical habitat from the Recovery Plan and by failing to develop site-specific management actions for those excluded areas, FWS violated Section 7 of the ESA by failing to “insure that any action authorized, funded, or carried out by [it] is not likely to ... result in the destruction or adverse modification of habitat of such species.” *Id.* at 1536(a)(2). **In this case, the failure to include designated critical habitat in the Recovery Plan, and the failure to develop site-specific management actions for that same critical habitat, violates the ESA by destroying or adversely modifying critical habitat because the Recovery Plan’s failure to include designated critical habitat “appreciably diminishes the value of the critical habitat for the conservation of the species,” by “preclude[ing] or significantly delay[ing the] development of such features.”** 50 C.F.R. 402.02.

Ultimately, FWS’s attempt to disregard and discard critical habitat in the Recovery Plan violates the plain language and intent of the ESA, the ESA’s implementing regulations, and is arbitrary and capricious.

B. Failure to Develop a Plan for Bull Trout Conservation.

1. FWS Improperly Establishes Species “Persistence,” Rather Than Species Conservation and Recovery, as its Central Objective.

In the Recovery Plan, FWS states that it will “focus on effectively managing and ameliorating the primary threats identified for each recovery unit at the core area scale such that bull trout will respond and *persist* well into the future.” Recovery Plan at vi. (emphasis added). According to FWS, meeting the recovery criteria—i.e. threshold past which FWS may “initiate an assessment of whether recovery has been achieved and delisting is warranted”—will ensure that bull trout merely “persist” rather than recover. *Id.* at 46. FWS explains that it will achieve “conditions that would most likely result in a determination that listing under the Act is no longer required” by “ameliorating primary threats in suitable habitats.” *Id.* And as explained above, *supra* at 4–5, “primary threats,” as FWS defines them, are threats to species persistence, not species recovery. The Plan provides that “if the primary threats have been effectively managed in each recovery unit, the long-term persistence of the bull trout should be ensured.” *Id.* This is not enough.

The ESA requires recovery plans to ensure more than species’ survival; it requires recovery of the listed species to a point *above* that at which it was listed, so that it can be removed from the list. *Gifford Pinchot*, 378 F.3d at 1070. This recovery mandate is evident in several provisions of the Act. For instance, in Section 4, the ESA requires FWS to develop

recovery plans “for the conservation and survival” of the species, 16 U.S.C. 1533(f)(1), and ESA defines “conservation” as “the use of *all methods and procedures* which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are *no longer necessary*.” 16 U.S.C. 1532(3). In other words, to conserve bull trout, FWS must use all methods and procedures necessary to improve the status of bull trout beyond the level at which it was listed so that it no longer requires protection. Likewise, Section 4 of the ESA requires FWS to include in Recovery Plans “objective, measurable criteria which, when met, would result in a determination . . . that the species [may] be removed from the list.” *Id.* 1533(f)(1)(B)(ii). And ESA’s post-delisting monitoring requirement applies to “all species which have *recovered* to the point at which the measures provided pursuant to [the ESA] are no longer necessary.” *Id.* 1533(g)(1). These ESA mandates make clear that recovery plans must aim for more than mere species persistence, as FWS does here.

Courts have long recognized the critical difference between persistence and recovery. In considering the Secretary of the Interior’s regulations implementing the ESA’s critical habitat provision, 16 U.S.C. 1536(a)(2), the Ninth Circuit concluded that “the ESA was enacted not merely to forestall the extinction of species (i.e., promote a species survival), but to allow a species to recover to the point where it may be delisted.” *Gifford Pinchot*, 378 F.3d at 1070. The Fifth Circuit reached the same conclusion in *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 441–42 (5th Cir. 2001), observing that “[c]onservation is a much broader concept than mere survival.” *Id.* at 441 (internal quotations omitted).

Here, FWS has failed to develop a “plan for the conservation,” including the *recovery*, of bull trout. In setting the recovery criteria at species “persistence,” rather than actual species *recovery*, FWS violates the ESA.

2. FWS Fails to Explain How Bull Trout Populations Can Decrease and Still Be Recovered.

According to FWS, bull trout recovery can be achieved even when *additional bull trout populations have been extirpated*. The agency states in the Recovery Plan that “despite our best conservation efforts . . . it is possible that some existing bull trout core areas will become extirpated within the foreseeable future due to various factors; including the effects of small populations, isolation, and climate change.” Recovery Plan at 113. FWS further explains that “a *small number of such extirpations* might occur without preventing recovery if threats are successfully managed in most core areas.” *Id.* (emphasis added).

This reasoning contradicts the agency’s previous statements with respect to bull trout demographics and recovery. In its 1999 bull trout listing decision and the subsequent five-year reviews of the bull trouts’ status suggest that demographic factors such as low population numbers and limited distribution are on the key threats to the species. *See, e.g.*, 65 Fed. Reg. 58910-01; Pacific Region, Idaho Fish & Wildlife Office, Boise, Idaho 5-Year Review Short Form Summary 3 (Nov. 13, 2015). Indeed, in the Recovery Plan, FWS states that “ecologically viable populations of bull trout are necessary to produce stable core areas which in turn will result in viable recovery units.” Recovery Plan at v, 109. And FWS has also deemed lack of bull trout habitat connectivity and bull trout population decline a major threat to the survival of the species. *See, e.g.*, 5-Year Review Short Form Summary at 3. Nevertheless, the Plan enables FWS to find bull trout have recovered even when further destruction of bull trout habitat occurs as

well as additional reductions of bull trout population numbers. FWS does not explain the basis for its change in approach.

This unsupported recovery rationale also violates the ESA. The Act requires FWS to establish criteria for *recovery* of the species that provide for the “conservation and survival” of the listed species. 16 U.S.C. 1533(f)(1). FWS has already determined that the *current* state of bull trout merits continued listing. *See* 5-Year Review Short Form Summary at 6. The Plan’s suggestion here that a *further decline* from this present level could lead to *recovery* defies logic and violates the ESA. The Supreme court has held that “[t]he plain intent of Congress in enacting [the ESA] was to *halt and reverse* the trend toward species extinction, whatever the cost.” *Tennessee Valley Auth.*, 437 U.S. at 184. Thus, FWS cannot determine, as attempts to do here, that bull trout can fall further toward extinction and still reach recovery.

C. Failure to Establish Criteria for Recovery.

FWS’s threat-based recovery criteria do not comply with the ESA and are inconsistent with the agency’s prior analyses. The ESA requires FWS to establish, where practicable, objective, measurable criteria that “when met . . . would result in a determination that the species be removed from the list.” 16 U.S.C. 1533(f)(1)(B)(ii); *see also* H. Rep. No. 567, 97th Cong., 2d Sess. 12, *reprinted in* 1982 U.S.C.C.A.N. 2807, 2812 (“delisting should be based on the same criteria . . . as listing”). In interpreting this provision, courts have observed that “Congress has spoken in clarion terms: the objective, measurable criteria must be directed towards the goal of removing the endangered or threatened species from the list.” *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 111 (D.D.C. 1995), *amended*, 967 F. Supp. 6 (D.D.C. 1997). As a result, “[s]ince the same five statutory factors must be considered in delisting as in listing, . . . the FWS, in designing objective, measurable criteria, must address each of the five statutory delisting factors and measure whether threats to the [listed species] have been ameliorated.” *Id.* (citing *Defenders of Wildlife v. Andrus*, 428 F. Supp. 167, 170 (D.D.C. 1977) and 1982 U.S.C.C.A.N. 2807, 2812).

Here, the Recovery Plan fails to establish such criteria for bull trout because it relies exclusively on FWS’s evaluation of the management of “primary threats” to bull trout rather than actual bull trout population and habitat indicators, such as population sizes, trends, distribution recruitment rates, and other demographic and habitat. Recovery Plan at vii-viii. While management of threats is important, it is not sufficient to ensure *actual* species recovery. This is so even though, for some core areas, the RUIPs identify low population numbers at a primary threat and propose recovery actions related to population thresholds. *See, e.g.*, Upper Snake RUIP at E-65 (setting a recovery action for the North Fork Payette as managing for demographic stochasticity by ensuring local population contain more than 50-100 reproductive individuals). Such recovery actions are not *required* by the recovery criteria and constitute only one factor that FWS might consider when evaluating whether recovery been achieved.

The ESA requires that recovery *criteria* be objective and measurable where practicable. Without recovery *criteria* that directly include demographic targets (e.g., x adults stable over y generations), FWS could improperly find recovery has been achieved before the population is actually stable. Following the Plan’s threats-based approach, the agency could deem bull trout recovered when primary threats are managed even if there is no actual improvement to bull trout populations. Under this logic, a doctor could deem a hospitalized heart attack patient “recovered”

when the major threats to her health—e.g., poor diet and lack of exercise—have been addressed even though her vital signs indicate that her heart is still dangerously weak. This approach does not stand to reason and fails to meet the ESA's recovery criteria requirements.

Further, in adopting this approach, FWS ignores its own principles and recommendations and fails to provide a sound reason for its decision to rely exclusively on threats management. FWS reiterates in the Recovery Plan its "principles of conservation specific to bull trout," which include seven measures, only one of which is threat management. Recovery Plan at 45 ("(1) conserve the opportunity for diverse life history expression; (2) conserve the opportunity for genetic diversity; (3) ensure bull trout are distributed across representative habitats; (4) ensure sufficient connectivity among populations; (5) ensure sufficient habitat to support population viability (e.g., abundance, trend indices); (6) address threats, including climate change; and (7) ensure sufficient redundancy in conserving population units."). Yet the recovery criteria's focus on threats management ignores six of these seven core principles. The Recovery Plan also contradicts FWS's 2008 Five-Year Status Review of bull trout, where FWS used a model to assess bull trout vulnerability that integrated population abundance, distribution, and population trends in addition to threats. U.S. Fish & Wildlife Serv., Bull Trout 5-Year Review: Summary and Evaluation, 11 (Apr. 25, 2008). Based on this model, the Status Review called for the use of a baseline condition for developing recovery criteria that incorporates "both population and threat evaluations." *Id.* FWS does not follow this recommendation in the Recovery Plan. Nor does FWS does not explain, as it must, why it has deviated from its own principles and past findings. Without basis in fact and without any explanation of why it has changed its approach to recovery measurement, the Recovery Plan's recovery criteria are unlawful.

D. FWS Fails to Establish Criteria that are Objective and Measureable and to Explain the Basis for Its Change of Approach.

In addition to improperly basing the recovery criteria solely on "primary threats" management, FWS also fails to provide criteria that are "objective" and "measurable," as required, where practicable, by the ESA, 16 U.S.C. 1533(f)(1)(B)(ii), and fails to explain why it has departed from its prior approach of measuring bull trout recovery with objective, measurable demographic values.

In contrast to quantifiable targets such as colonization rates, spawner abundance, and increases in genetically pure bull trout, the Recovery Plan's "primary threats management" criteria are subjective, arbitrary, and vague. The RUIP for the Upper Snake River Recovery Unit illustrates this point. As explained above, *see supra* at 4–5, the Recovery Plan sets the recovery criteria for this recovery unit as effective management of primary threats in "75 percent of the core areas representing 75 percent or more of bull trout local populations." Recovery Plan at vii. Since this RUIP has 22 core areas, threats must be managed in 17 (i.e. 75% of 22) core areas to meet the recovery criteria for this RUIP. *Id.* at 47. In the Upper Snake RUIP, FWS identifies whether there are any "primary threats" to bull trout in each core area (14 of the 22 core areas currently have no primary threats at all, according to FWS) and, for the nine core areas where primary threats do exist, FWS lists one or more "recovery measures" (or "recovery actions") that may address those threats. Upper Snake RUIP at E-21–E-59. For instance, for the Squaw Creek core area's primary threat, FWS assigns the following single action: "Implement actions necessary to accelerate recovery of riparian vegetation and streambanks and reduce negative effects from historic and current livestock grazing in identified problem areas." *Id.* at E-32. That

is all. FWS provides no metrics for success. When will these “actions necessary” be implemented? What are the identified “problem areas”? How will FWS determine that the associated threat of habitat reduction has been addressed? FWS does not specify. Thus, the public is left unable to evaluate progress toward recovery.

Moreover, while the agency outlines a complicated “Threat Assessment Tool” in Appendix E of the Recovery Plan, which is intended to provide a framework for evaluating the effectiveness of the threats management efforts, Recovery Plan at 161, FWS does not explain how this tool will actually measure whether threats have been “effectively” management in each recovery unit. Instead, FWS suggests that, sometime in the future, experts will make this determination through workshops and decision matrices. *Id.* at 161–163. “[A]vailable population information” “should be considered” for each core area. *Id.* at 161. This indeterminate aspiration neither *requires* that population numbers must enter into the analysis, nor does it *specify* minimum population thresholds. In this way, FWS could deem the “primary threat” of habitat destruction “managed” in the entire Squaw Creek core area whenever it finds that an undefined set of “actions necessary” implemented. It could do so even if population numbers have dropped. This arbitrary and subjective approach violates the express requirement that FWS develop criteria be “objective” and “measurable,” where practicable. 16 U.S.C. 1533(f)(1)(B)(ii).

The Congressional history of Section 4 of the ESA indicates that the primary purpose of having “objective, measurable criteria” in recovery plans is to provide a means by which the public can measure progress in the Secretary’s efforts at recovery of a species. *See* S. Rep. No. 100–240 at 4 (“most [past recovery plans] . . . provide[d] no criteria by which to judge their success”); *id.* at 9 (“Section 4(f) of the Act is amended to require that each recovery plan incorporate . . . criteria by which to judge success of the plan.”). Here, FWS has not provided such criteria and has directly contracted its prior statements that such criteria are necessary for measuring recovery. Thus, even if FWS were permitted to rely exclusively on threats management recovery criteria, which is it not, FWS fails to meet the requirement that these indicators be objective and measurable, where practicable. FWS also fails to explain why it has abandoned its prior approach of evaluating recovery based, in part, on objective, demographic values.

E. Failure to Provide a Legal Basis for the “75 Percent” Recovery Criteria.

FWS impermissibly determined that management of primary threats in at least 75 Percent of core areas will provide for the recovery of bull trout.

1. The 75 Percent Threshold Allows Additional Extirpations to Occur.

FWS states that it will initiate an assessment of whether recovery has been achieved and whether delisting is warranted when “[p]rimary threats are effectively managed in at least 75 percent of all core areas, representing 75 percent or more of bull trout local populations” within the Coastal, Mid-Columbia, and Upper Snake recovery units” and when “primary threats are effectively managed in 75 percent of simple core areas and 75 percent of complex core areas” within the Columbia Headwaters Recovery Unit representing “75 percent or more of bull trout local populations in both simple and complex core areas.” Recovery Plan at vii. In so doing, FWS illegally draws the line at a point *below* the already-depleted distribution of bull trout. As explained above, FWS recognizes that, since the 1999 listing, bull trout decline has not abated and that, in some core areas, including core areas in these four recovery units, population

numbers and habitat have declined further. *Id.* at 7–8. It has also stated in numerous other documents that range and connectivity a problem.

Despite these facts, FWS determines that threats management in only 75 percent of the existing core areas within these four recovery units will meet the criteria for recovery. In other words, FWS considers management of threats in an area that is *less* than the amount of habitat that existed when bull trout was initially listed sufficient to consider *delisting* the species. Under this framework, bull trout could lose *additional* habitat—a quarter of their remaining current habitat in most recovery units—and still be considered recovered. FWS fails to explain how this can be so when it has already identified habitat loss and loss of connectivity as major threats to the species. This reasoning is arbitrary and capricious and violates the ESA's conservation mandate. 16 U.S.C. 1533(f)(1).

2. FWS Lacks Scientific Support for the 75 Percent Threshold and Impermissibly Based its 75 Threshold on Economic Costs.

FWS offers no scientific explanation for its determination that a threatened species can recover as it loses significant habitat and as populations are extirpated. In defense of the 75 percent threshold, FWS states that it “is confident that a minimum threshold of 75 percent is sufficient to achieve recovery.” Recovery Plan at 121–22. This conclusory statement is not enough. FWS must explain the basis for its determination that threats management in only 75 percent of core areas will ensure recovery. *See Defs. of Wildlife v. Babbitt*, 130 F. Supp. 2d 121, 133 (D.D.C. 2001) (finding unlawful FWS's failure to explain the reasoning behind its recovery criteria or to outline where the record supports that determination). Here, the agency does not cite any studies or scientific analysis to support the 75 percent threshold. Even more fundamentally, FWS fails to define recovery in a way that would enable assessment of whether a specific threshold quantity (such as habitat, demographic values numbers, and even threats management) actually indicates recovery.

Instead, FWS improperly relies on economic considerations in establishing the recovery criteria. In response to comments objecting to the arbitrary and unsupported 75 percent threshold FWS states that it “recognizes that the protections of the Act must be applied only when a species is truly on the verge of extinction or could be at risk of extinction in the foreseeable future because the protections of the Act impose economic, social, and cultural limitations that can sometimes be onerous.” Recovery Plan at 111. The agency continues to explain that “[a]s [FWS] strive[s] to balance prevention of extinction or the risk of extinction to bull trout with our obligation to not unnecessarily impose the limitations on society that protections under the Act carry, the Service has established a recovery standard (criteria) for bull trout.” *Id.* This consideration of economic cost violates the ESA.

Section 4 of the ESA requires FWS to make listing (and delisting) determination based solely on “the best scientific and commercial data available.” 16 U.S.C. 1533(b)(1)(A). It follows that, since recovery criteria must be linked to the listing factors, *Fund for Animals*, 903 F. Supp. at 111, these criteria must also be based on the best available science. Indeed, FWS acknowledges as much when it states in the Recovery Plan that it “seek[s] to identify recovery criteria for bull trout that . . . are based in a sound scientific rationale, reflecting biodiversity principles of resilience (ecological quality and ability to persist), redundancy (maintaining multiple replicates of populations/habitats to insure against catastrophic loss), and representation

(conserving the full range of natural variation) (Shaffer and Stein 2000, Tear *et al.* 2005).” Recovery Plan at 45; *see also* Endangered and Threatened Wildlife and Plants: Notice of Interagency Cooperation Policy on Information Standards under the ESA, 59 Fed. Reg. 34271-01 (July 1, 1994) (“review [of recovery] will be conducted to ensure that any information used by the Services to implement the Act is reliable, credible, and represents the best scientific and commercial data available.”); Endangered and Threatened Wildlife and Plants: Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities, 59 FR 34270-01 (July 1, 1994) (“[i]ndependent peer review will be solicited on listing recommendations and draft recovery plans to ensure the best biological and commercial information is being used in the decisionmaking [sic] process.”). Because FWS fails to provide a sound scientific basis and explanation for the 75 percent threshold and relied on factors that it should not have, its determination is unlawful.

F. Failure to Establish the Required Time and Cost Estimates.

The recovery plan is required, to the maximum extent practicable, to incorporate “estimates of the time required and the cost to carry out those measures needed to achieve the plan’s goal and to achieve intermediate steps toward that goal.” 16 U.S.C. 1533(f)(1)(B)(iii). The requirement to include time and cost estimates is intended to “provide a means by which to judge the progress being made toward recovery.” S. Rep. No. 100–240 at 9–10 (1988); *see also Grand Canyon Trust v. Norton*, No. 04-CV-636PHXFJM, 2006 WL 167560, at *4 (D. Ariz. Jan. 18, 2006).

Here, while FWS provides a table that references some time and cost estimates, it does not fulfill the ESA’s requirement that it establish time estimates for “intermediate steps” where practicable. 16 U.S.C. 1533(f)(1)(B)(iii). The Plan lacks time estimates for numerous recovery actions. In the Upper Snake RUIP, for example, FWS determines that the “time to recovery” (defined on page E-59 as the time estimate for how long it will take to achieve meeting recovery criteria in this recovery unit if all recovery actions are completed) will be 25 years. Upper Snake RUIP at E-63. The RUIP then lists in table format many actions that, in its estimate, will take 25 years to complete. *Id.* at E-60–E-83. These include actions such as “[r]estor[ing] streams that are partially or completely dewatered” and “[i]dentify[ing] barriers for bull trout and implement tasks to provide passage.” *Id.* at E-61. FWS provides no estimates of the time needed to identify particular barriers and to restore particular streams. Nor does it explain why time estimates of intermediate steps are impracticable. Without estimates of the time required for actual implementation of the Plan, there are no temporal benchmarks against which to measure progress toward recovery during the 25-year recovery time. FWS must do more. *See Defs. of Wildlife*, 130 F. Supp. 2d at 135 (remanding to FWS a recovery plan that failed to provide estimates of the time required to carry out measures needed to achieve the plan’s goal and intermediate steps toward that goal even though FWS provided estimates for some general ongoing actions); *see also Grand Canyon Trust*, 2006 WL 167560, at *5 (remanding recovery plan to FWS upon finding that the agency failed to comply with its non-discretionary duty to provide time and cost estimates pursuant to 16 U.S.C. 1533(f)(1)(B)(iii) when it did not update such estimates after amending the Recovery Plan.). This failure to include time estimates violates the ESA.

Further, many recovery actions lack the required cost estimates. FWS has entered “TBD” in the cost estimate for many recovery actions, without any explanation of why a particular cost

estimate is impracticable. *See, e.g.*, Upper Snake RUIP at E-66–E-71. As with time estimates, FWS's failure to estimate cost violates the ESA's express requirements for cost estimates where practicable.

G. Failure to Use the Best Available Science and to Consider Relevant Information about Climate Change.

As described above *see supra* at 3–4, FWS acknowledges the effects that climate change is having on bull trout and their habitat. It states that “a warming climate already may be affecting some suitable bull trout instream habitats,” Recovery Plan at 17, and it cites a range-wide bull trout vulnerability assessment completed in 2015, *id.* at 19, 32 (citing Dunham 2015), which found that bull trout are at high risk of warming water temperatures and that identifies numerous areas where bull trout “have been observed recently, but may be at high risk of local extinction.” Dunham, et al. 2015. Notwithstanding these findings, FWS concludes that climate change is not a “primary threat” to bull trout and determines that it need not incorporate climate change considerations into the recovery criteria. These failures are improper for several reasons.

As an initial matter, FWS directly contradicts its own analysis of the effects of climate change on bull trout. In explaining why it did not consider climate change a “primary threat” for purposes of recovery planning, FWS states that “[t]he Service elected to remove climate change as a threat. . . [because] the effects of climate change are . . . difficult to determine. We acknowledge that climate change will have effects but are uncertain when those impacts would occur.” Upper Snake RUIP at E-104. FWS mischaracterizes the available data and its own knowledge. FWS does, in fact, have information about where and when its impacts are likely to occur. As explained above, the agency cites numerous studies with this information. For example, FWS explains that “[t]here is little doubt that climate change is and will be an important factor affecting bull trout distribution,” Upper Snake RUIP at E-14, and elaborates that “[a]s its distribution contracts, patch size decreases and connectivity is truncated, bull trout populations that may be currently connected may face increasing isolation, which could accelerate the rate of local extinction beyond that resulting from changes in stream temperature alone.” *Id.* (citing Rieman et al. 2007). FWS then states that “[b]ull trout in areas with currently degraded water temperatures and/or at the southern edge of its range may already be at risk of adverse impacts from current as well as future climate change.” *Id.* FWS goes on to specifically identify core areas at risk, based on a 2015 “Climate Shield” model for the bull trout. Applying this model to the Upper Snake RUIP, FWS finds the following:

[S]ome core areas [in the Upper Snake RUIP] will have greatly reduced amounts of suitable habitat (Weiser, Squaw Creek, North Fork Payette, Middle Fork Payette, and Jarbidge). The Jarbidge, Middle Fork Payette, and Squaw Creek core areas appear to change the most (baseline to 2040) and potentially will contain the least amount of persistent cold water habitat to support bull trout in the future. Core areas in these lower elevation areas (including the Malheur, Little Lost, Jarbidge, Weiser, Squaw Creek, North Fork Payette, Middle Fork Payette, and little-lower Salmon drainages) are the core areas that would be most susceptible to future climate change.

Id. at E-13 (citing Isaak et al. (2015)). These and other sections of the Recovery Plan demonstrate that FWS is well aware that climate change is a major threat to bull trout and that it

has a means of identifying core areas that are at risk. The agency's rationale that climate change cannot be considered a primary threat because the effects are "uncertain" is thus contradicted by its own analysis and conclusions in the record.

Furthermore, FWS ignores the best available science and fails to plan for bull trout conservation in the face of climate change. The ESA requires agencies to identify management actions necessary to achieve the plan's goals for the conservation and survival of the species. The *Fund for Animals* court explained this requirement clearly: "A recovery plan that recognizes specific threats to the conservation and survival of a threatened or endangered species, but fails to recommend corrective action or explain why it is impracticable or unnecessary to recommend such action, would not meet the ESA's standard. Nor would a Plan that completely ignores threats to conservation and survival of a species." 903 F. Supp. at 108. Here, FWS drops the ball in both respects. Even though FWS acknowledges the climate change threat to bull trout and cites numerous studies and models that would aid in bull trout recovery planning in a warming environment, it fails to incorporate this information into the recovery criteria or site-specific recovery actions. In the Recovery Plan, FWS states that the RUIPs and implementers of the Recovery Plan will use the climate change models as they undertake recovery actions. Recovery Plan at v. However, in the RUIPs, FWS does not explain how any of the recovery actions address the threat of climate change. FWS explains in the Recovery Plan, that "[p]otential climate change impacts, while not specifically assessed as an independent threat, are considered in the context of climatic influence on other threats when determining what recovery actions are needed in core areas." *Id.* at 149. Not so. Contrary to FWS's statement, RUIPs do not even mention climate change in the actual recovery actions, nor do they cite to scientific studies that were specifically *developed* to aid in planning for habitat restoration in the context of climate change. *See id.* at 19, 31 (citing 2015 Bull Trout Vulnerability Assessment by Dunham). For example, rather than translate the findings of these studies in to recovery actions, the Upper Snake RUIP states that, sometime in the unspecified future, "[t]he identification of core areas and watersheds that are most likely to maintain habitats suitable for bull trout over the foreseeable future under probable climate change scenarios will also help guide the allocation of bull trout conservation resources to improve the likelihood of success." *Id.* at E-13. Such identification is already possible, given the available science, and FWS fails to consider it when determining recovery actions.

In a similar vein, FWS fails to establish measures to ensure climate change does not extirpate bull trout. FWS declares that "[t]he best conservation action to combat climate change is most likely improving or promoting connectivity between local populations and within core areas." *Id.* at E-104. However, in several key areas, improving or promoting connectivity is not even mentioned as a recovery action. For instance, in the Jarbridge core area, which, as mentioned above, *see supra* at 15-16, will potentially "contain the least amount of persistent cold water habitat to support bull trout in the future" and will be "most susceptible to future climate change" has no planned recovery actions. Upper Snake RUIP at E-13. FWS does not identify any "primary threats" or associated recovery actions for this core area. Therefore, the major threat of climate change will go unaddressed during Recovery Plan implementation. In this way, even if climate change degrades this and other bull trout habitat further, as predicted, and even if nothing has been done to manage for the impacts of climate change on bull trout, FWS could nonetheless find that primary threats have been sufficiently managed such that delisting is warranted. FWS has ignored relevant data and failed to plan for the conservation of bull trout. Through these

actions, it has acted arbitrarily and capriciously and has violated the ESA's mandates to conserve bull trout. *Fund for Animals*, 903 F. Supp. at 108.

CONCLUSION

For the foregoing reasons, FWS's actions related to the Bull Trout Recovery Plan are unlawful. If FWS does not cure the violations of law described above immediately, upon expiration of the 60 days after the date of this amended notice the parties to this notice intend to file suit against FWS pursuant to the citizen suit provision of the ESA, 16 U.S.C. 1540(g) and/or the Administrative Procedure Act, 5 U.S.C. 701, *et seq.* If you would like to discuss the violations described herein and seek a mutually acceptable solution to them, please feel free to contact me.

Sincerely,

s/Tom Buchele
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