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September 13, 2012

Ken Salazar
Secretary of the Interior
U.S. Department of the Interior
1849 C Street, N.W.
Washington, D.C. 20240

VIA E-MAIL AND CERTIFIED MAIL

Re: Violations of Endangered Species Act, 16 U.S.C. § 1531 et seq.

Dear Secretary Salazar,

I am writing on behalf of Friends of the Wild Swan, Montana Environmental Information Center, Natural Resources Defense Council, and individual Stephen Braun to provide you with notice, pursuant to 16 U.S.C. § 1540(g)(2)(A), of violations of the Endangered Species Act (“ESA”) in connection with the approval by the U.S. Fish and Wildlife Service (“FWS”) of forest management activities to be carried out by the Montana Department of Natural Resources (“DNRC”) on state trust lands in western Montana. If FWS does not take action within 60 days to remedy the legal violations set forth in this letter, the parties listed above intend to bring claims under both the ESA and the National Environmental Policy Act (“NEPA”) challenging FWS’s actions in federal district court.

The wild lands of western Montana contain some of the last prime habitat in the United States for threatened grizzly bears and bull trout. For example, western Montana still has large stretches of mountain-and-meadow land, making it one of the last remaining strongholds in the lower-48 for grizzly bears, who once ranged south into Mexico and west to the Pacific, but today have been cornered into the northern Rockies and surrounding lands. And it still has cold, clean streams for bull trout, whose historic range has shrunk by half.

A central purpose of the Endangered Species Act is to guard species from extinction by protecting their habitat—“by provid[ing] a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” 16 U.S.C. § 1531(b). DNRC proposes to shred western Montana’s remnant fabric of habitat by allowing logging and road building on state trust lands throughout the region—activities that it acknowledges will “take” grizzly bears, bull trout, and lynx through the release of sediment into streams, the disturbance of secure grizzly habitat, and dozens of other impacts. *Id.* § 1538(a)(1); Montana DNRC HCP Biological Opinion (“BiOp”) IV-164; IV-289; II-45.

Properly developed and implemented, a programmatic-level habitat conservation plan is appropriate to mitigate the effects of DNRC’s proposed activities. Such a landscape-scale analysis has the potential to benefit species by allowing permittees and FWS to eliminate proposed activities that would cause the most harm to species, prioritize protections in those

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areas most important to species survival, and ensure that protections are in place over the long term. On the other hand, when such a large-scale plan fails to include necessary species protections, the resulting damage is magnified over a widespread geographic area and for decades into the future. Unfortunately, such is the case here.

In approving DNRC's plan, FWS failed to follow both the spirit and the letter of the ESA. The Act is a call to species protection: a commitment, in the words of the Supreme Court, "to halt and reverse the trend toward species extinction—whatever the cost" by rejecting the "economic growth and development untempered by adequate concern and conservation" that gave this country its legacy of extinctions. Tennessee Valley Auth. v. Hill, 437 U.S. 153, 154 (1978); 16 U.S.C. § 1531(a)(1). Consistent with this commitment, the ESA requires FWS to ensure that its issuance of an incidental "take" permit to DNRC "is not likely to jeopardize" listed species' survival, and it restrains FWS from approving such a permit until DNRC demonstrates that it will mitigate the impacts of its taking "to the maximum extent practicable." 16 U.S.C. § 1536(a)(2); 16 U.S.C. § 1539(a)(2)(B)(ii). FWS violated both of these requirements. Instead of ensuring against a likelihood of jeopardizing listed species and guaranteeing the maximum practicable mitigation against impacts to bull trout and grizzly bears, the agency has issued a permit with a 50-year term, approving DNRC's plan to build 1,100 miles of new roads, delay essential remedial actions on existing roads, allow logging immediately adjacent to bull trout streams, and diminish secure core habitat protections for grizzly bears over 39,600 acres. BiOp IV-213; IV-204-05; IV-179; II-45.

As FWS acknowledges, all of these impacts are in addition to the significant new and expanding threats that bull trout and grizzly bears face from ongoing climate change. Global warming is likely to cause the shrinking and warming of streams as snowmelt and precipitation decrease, ambient air warms, and tree cover dwindles. DNRC, Habitat Conservation Plan Final Environmental Impact Statement ("HCP FEIS"), 4-215 to 4-218. As cold-water habitat disappears, bull trout will become even more scarce and isolated. Id. at 4-218. Grizzlies, meanwhile, will be forced to search out new food sources as expanding pathogens and new, heat-tolerant species alter their foraging landscape. Id. at 4-438. Instead of giving these species room to respond to the demands of a warming climate, DNRC's HCP only adds stressors and constrains habitat options.

Thus, at a critical moment when grizzlies and bull trout need maximum flexibility, FWS has locked in a regime for the next 50 years that will shrink and degrade crucial remaining habitat for these imperiled species. For the reasons set forth below, FWS's approval of DNRC's action violates the ESA.

I. ENDANGERED SPECIES ACT REQUIREMENTS

A. Incidental Take Permit Issuance

Under Section 9 of the ESA, no person may "take" any endangered species. 16 U.S.C. § 1538(a)(1). In enacting the ESA, Congress intended to afford endangered species "the highest of priorities." Tennessee Valley Auth., 437 U.S. at 194. Accordingly, the take provision sweeps

broadly to “extend protection against activities that cause the precise harms Congress enacted the statute to avoid,” including habitat modification that “actually kills or injures wildlife.” Babbitt v. Sweet Home Chapter of Cmty. for a Great Or., 515 U.S. 687, 698, (1995); 50 C.F.R. § 17.3.

Under Section 10 of the ESA, a person or government agency whose activities will incidentally take endangered or threatened species can avoid Section 9 liability by applying in advance for an incidental take permit. 16 U.S.C. § 1539(a)(1)(B). The incidental take permit has the potential to strengthen protections of the Endangered Species Act by creating incentives to take early action to protect species. For applicants, it is both procedurally demanding and substantively rigorous. Ramsey v. Kantor, 96 F.3d 434, 439 (9th Cir. 1996). Procedurally, it calls for the preparation of a habitat conservation plan. 16 U.S.C. § 1539(a)(2)(A). Substantively, it requires a finding by FWS that “the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking” and that “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.” Id. § 1539(a)(2)(B)(ii), (iv).

B. No-Jeopardy Determination

Section 7(a)(2) of the ESA requires that “[e]ach Federal agency shall . . . insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an ‘agency action’) is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of critical habitat for the species. 16 U.S.C. § 1536(a)(2). Because FWS’s issuance of an incidental take permit is an agency action, FWS is obligated to ensure that the permit issuance will not jeopardize listed species—or, in the words of Section 7’s implementing regulations, that the permit issuance is not “an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02.

To ensure compliance with the jeopardy prohibition, FWS must prepare a biological opinion that includes “a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat.” Id. § 1536(b)(3). In addition, the opinion must include any “reasonable and prudent alternatives” necessary to avoid jeopardizing listed species. Id. In preparing its biological opinion and jeopardy determination, FWS must “use the best scientific and commercial data available.” Id. §1536(a)(2).

If FWS concludes that the proposed incidental taking of endangered or threatened species will not jeopardize the species, or that reasonable and prudent alternatives would avoid such jeopardy, then FWS may issue an incidental take statement. Id. § 1536(b)(4). The incidental take statement “specifies the impact of such incidental taking,” “specifies those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact,” and sets forth terms and conditions for implementing such measures. Id. § 1536(b)(4).

As described below, FWS’s biological opinion is not based on the “best scientific and commercial data available.” Id. § 1536(a)(2). In addition, FWS acted arbitrarily in finding that

DNRC's habitat conservation plan satisfies the ESA's protective standards and that issuance of an incidental take permit to DNRC would not jeopardize listed species. FWS's action is accordingly unlawful.

II. FAILURE TO MINIMIZE IMPACTS TO THE MAXIMUM EXTENT PRACTICABLE

FWS has not required DNRC to minimize the harm to bull trout and grizzly bears due to DNRC's proposed forestry management activities "to the maximum extent practicable." 16 U.S.C. § 1539(a)(2)(B)(ii). Here, FWS concluded that, notwithstanding conservation commitments in the HCP, incidental take of grizzly bears in the form of harm or harassment would occur due to high total road densities on 50,833 acres of DNRC lands in the Stillwater Block, BiOp at II-126; and high open road densities on 45,560 acres of DNRC lands in the Stillwater Block, BiOp at II-127. These effects will occur in four BMU subunits in the Stillwater Block: Lazy Creek, Stryker, Upper Whitefish, and State Coal Cyclone. BiOp at II-126, 127.

Furthermore, take to bull trout would occur due to sedimentation from forest roads on 207.2 stream miles in the project area, BiOp at IV-295; and sedimentation from livestock grazing on 81.6 miles of stream miles in the project area, BiOp at IV-297. Sedimentation causes "harm" to bull trout "spawning, rearing, overwintering, and migratory habitats such that [bull trout] are unable to meet their feeding, breeding, and/or sheltering needs." BiOp at IV-294. Bull trout will suffer these effects in nearly all of their core areas throughout HCP-covered lands. BiOp at IV-297.

DNRC rejected mitigation measures that would provide for less logging and greater conservation commitments for bull trout and grizzly bears as being impracticable because they would result in less revenue for DNRC's trust beneficiaries. See, e.g., HCP FEIS at 3-33 (rejecting alternative of applying more protective federal conservation standards to state trust lands because doing so "would decrease the opportunity for timber harvest and would result in a revenue loss"); id. (rejecting alternative that would require less road building because it "would likely result in increased costs and lost revenue to the trust beneficiaries, thereby not meeting DNRC's purpose and need"); id. at 6-6 (explaining that protecting secure grizzly bear habitat in the Stillwater Block would impede DNRC's "ability to meet its trust mandate to generate revenue for the trust beneficiaries from those lands"); see also HCP, at 1-7 (describing "DNRC Practicability Considerations"). This impracticality rationale, however, is not supported by any economic analysis and, furthermore, is based on an excessively rigid conception of DNRC's trust mandate.

FWS cannot issue an incidental take permit where "the applicant rejected another alternative that would have provided more mitigation or caused less harm to the endangered species and FWS determined in its expert judgment that the rejected alternative was in fact feasible." Sw. Ctr. for Biological Diversity v. Bartel, 470 F. Supp. 2d 1118, 1158 (S.D. Cal. 2006). Here, FWS arbitrarily accepted DNRC's unsupported assertion that greater conservation commitments are not feasible because they would reduce the amount of revenues generated for the trust. However, the mere fact that conservation measures would reduce the financial return

of logging activities does not render the measures infeasible or unreasonable. If that were the case, then the ESA's requirement to minimize impacts "to the maximum extent practicable" would be meaningless, as any restrictions on the permit applicant's proposed action would be impracticable. Here, for example, DNRC's argument would render "impracticable" any alternative that would not result in maximum logging—a result certainly not permitted under the Endangered Species Act.

Nor is this result mandated under state law. DNRC's management of state lands is bound by "the guiding principle" that:

these lands ... are held in trust for the support of education and for the attainment of other worthy objects helpful to the well-being of the people of this state The board shall administer this trust to secure the largest measure of legitimate and reasonable advantage to the state.

Mont. Code Ann. § 77-1-202. This duty embodies more than economic factors. See Friends of the Wild Swan v. Dep't of Natural Res. and Conservation, 2005 MT 351, ¶ 21, 330 Mont. 186, 127 P.3d 394 ("Although the statutory directive to 'secure the largest measure of legitimate and reasonable advantage' certainly includes economics, the phrase is not limited in purpose to financial return."). The Land Board's obligation "to protect the best interests of the state ... necessarily includes considering consequences to wildlife and the environment." Ravalli County Fish and Game Ass'n, 273 Mont. 371, 379, 903 P.2d 1362, 1638. The Land Board's "duty to avoid environmental harm is mandatory." Id. at 387. Indeed, DNRC regulations require it to "participate in recovery efforts of threatened and endangered plant and animal species." Admin. R. Mont. 36.11.428(1). Accordingly, DNRC's trust obligation is not just about maximizing revenue, but also about protecting and preserving unreplaceable resources.

Neither DNRC nor FWS provided any analysis to support the conclusion that additional conservation measures are impracticable in light of the DNRC's multi-faceted trust obligation. DNRC identified "practicability considerations" in the HCP, but failed to apply those considerations in an objective and analytical fashion anywhere in the HCP or EIS. See HCP, at 1-7. Even if DNRC believed that alternatives and mitigation measures that would diminish economic return from forested state trust lands are infeasible, "FWS must make an independent determination of practicability and make a finding that the impacts of the taking will be minimized and mitigated 'to the maximum extent practicable.'" Southwest Ctr. For Biological Diversity, 470 F. Supp. 2d at 1158 (citing 16 U.S.C. § 1539(a)(2)(B)(ii); Gerber v. Norton, 294 F.3d 173, 184 (D.C. Cir. 2002)).

FWS's HCP Handbook provides guidance on how FWS is to make a determination regarding the practicability of rejected mitigation measures:

[P]articularly where the adequacy of mitigation is a close call, the record must contain some basis to conclude that the proposed program is the maximum that can be reasonably required by that applicant. This may require weighing the ... benefits and costs of implementing additional mitigation, the amount of

mitigation provided by other applicants in similar situations, and the abilities of that particular applicant. Analysis of the alternatives that would require additional mitigation in the HCP and NEPA analysis, including the costs to the applicant is often essential in helping the Services make the required finding.

FWS, Habitat Conservation Planning and Incidental Take Permit Processing Handbook, at 7-3–7-4 (Nov. 4, 1996). As one court has found, “the most reasonable reading of the statutory phrase ‘maximum extent practicable’ ... requires the Service to consider an alternative involving greater mitigation. [T]o consider an alternative providing greater mitigation, in the context of this HCP, the record should provide some basis for concluding, not just that the chosen [mitigation measures] are practicable, but that [greater mitigation] would be impracticable.” Nat’l Wildlife Fed’n v. Babbitt, 128 F.Supp.2d 1274, 1292 (E.D. Cal. 2000). Absent such analysis, FWS cannot accept DNRC’s assertions.

Because DNRC’s claim that additional measures to minimize harm to bull trout and grizzly bears is unsupported by any factual analysis or legitimate legal constraint, FWS’s apparent determination that DNRC will mitigate harm to species “to the maximum extent practicable” is arbitrary and capricious.

III. FAILURE TO PROTECT BULL TROUT & CRITICAL BULL TROUT HABITAT

The bull trout, Salvelinus confluentus, historically thrived in almost all waters throughout the Columbia River basin and its headwaters in Montana and Canada, including lakes, large rivers, and small tributary streams. Listed under the ESA as threatened in 1998, bull trout today mainly persist in small, isolated headwater lakes and streams, occupying less than half of their historic range. Bull trout are extremely sensitive to environmental disturbance because they have highly specific habitat requirements. To successfully spawn, develop, and survive, bull trout require water that is very cold—5 to 9 degrees Celsius—and clean. Embryos and juveniles require cold, sediment-free stream bottoms with small spaces between pebbles, which provide cover for juveniles to hide from predators and allow the flow of oxygenated water to nourish eggs deposited between these pebbles. Bull trout are particularly sensitive to changes in stream cover, stream channel form and stability, blockage, modification, and other impediments in their migratory corridors.

Land use activities that degrade water quality, such as roading, logging, mining, irrigation, and grazing, have forced bull trout out of the main stems of rivers and into the smaller reaches, and have disrupted their pattern of migrations. Thus threatened with genetic isolation, remaining bull trout populations are “at best stable and more often declining.” BiOp IV-24. Nevertheless, FWS approved DNRC forestry practices that will increase threats to bull trout due to sedimentation from new and existing roads and logging adjacent to important trout streams. As described below, FWS’s biological opinion and incidental take permit are arbitrary and unlawful with respect to these impacts to bull trout.

A. Road Density

As FWS recognizes, roads are one of the greatest threats to bull trout. See BiOp Appendix E at 4; IV-197. When roads are cut into slopes, they change the natural hillside drainage network, causing a series of impacts. First, during storms, rain runs off roads and directly into streams. See BiOp IV-197. The rush of water changes peak flows, carries chemicals, and physically alters the delicate bank and channel features that bull trout depend on. See id. Second, as it travels, storm water erodes the hillside, causing landslides, gulying, and slumps—and then literally carrying the eroded land into the river as sediment. See BiOp IV-197; IV-222-23; IV-228. Sediment is deadly to bull trout because it clogs their spawning gravel, suffocating eggs and preventing fry from emerging. See BiOp IV-164; IV-20-21.

FWS frankly acknowledges that an increase in roads will damage bull trout and their habitat, including through sedimentation that smothers eggs and fry. See BiOp IV-289. Nevertheless, FWS has approved DNRC's forest management plan, which will increase road density by 30-40% in the project area. See BiOp IV-213; BiOp IV-218, Table IV-13. FWS claims that this increase in roads will not jeopardize bull trout because it will be offset by improvements to existing roads. See BiOp IV-286.

DNRC's promised improvement, however, is too little, too late. DNRC will spend the first ten years of the plan inventorying existing roads. Only after this lengthy warm-up will it begin to develop mitigation measures. See BiOp IV-204; IV-216. Indeed, DNRC gives itself a leisurely fifteen years to address just those roads most in need of improvement: "high risk sites" in bull trout watersheds. See BiOp IV-229; IV-205. Meanwhile, as new roads are built, bull trout habitat will drop below baseline conditions. See BiOp IV-289.

FWS's approval of DNRC's planned road-building activities is unlawful in several ways. First, a no-jeopardy determination must rely on already-developed mitigation measures, not promises to develop such measures in the future. See Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 936 (9th Cir. 2008) ("general desire" to undertake mitigation cannot support agency's no-jeopardy finding, absent "a clear, definite commitment of resources for future improvements"); Ctr. for Biological Diversity v. Rumsfeld, 198 F. Supp. 2d 1139, 1152, 1156 (D. Ariz. 2002) (finding that the Army's plan to prepare a "water resources management plan" over three years as a means of developing conservation and reuse projects for implementation was not an adequate basis for a no jeopardy determination; the FWS may not "postpone, for three years, this assessment which must be made as part of the process of issuing the Final BO."); FWS's obligation to complete—not just plan for—the assessments underlying mitigation measures has two statutory underpinnings: the requirement under Section 10 that the agency approve an HCP only if the applicant has mitigated the effects of its taking "to the maximum extent practicable," 16 U.S.C. § 539(a)(2)(B)(ii), and the requirement under Section 7 that the agency ground its no jeopardy determination in "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2).

Second, FWS's biological opinion must "analyze the effect of the *entire* agency action." Conner v. Burford, 848 F.2d 1441, 1453 (9th Cir. 1988). Specifically, where mitigations are

delayed, near-term impacts of a plan must be incorporated into the jeopardy determination. See Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Bureau of Reclamation, 426 F.3d 1082, 1094 (9th Cir. 2005) (finding that the National Marine Fisheries Service's (NMFS) approval of a three-phased approach for releasing water from a dam was arbitrary and capricious where the agency had not evaluated the effect on the endangered coho salmon of the lower flows permitted during the first two phases of the plan); Nat'l Wildlife Fed'n, 524 F.3d at 935 (rejecting finding of "no adverse modification because [the agency] ignored the short-term adverse modification and considered only long-term impacts"). An evaluation of near-term impacts is especially imperative where short-lived species such as fish will be impacted. Pac. Coast Fed'n of Fishermen's Ass'ns, 426 F.3d at 1094.

Third, FWS's apparent determination that DNRC will mitigate the harm to bull trout due to an expanded road network "to the maximum extent practicable" is not supported and accordingly is arbitrary. See 16 U.S.C. § 1539(a)(2)(B)(ii). DNRC rejected options that would more expeditiously reduce the harm to bull trout due to the existing road network, HCP FEIS at 3-24, 4-262 – 63 (discussing Alternative 3), and require less road-building, id. at 3-33. DNRC's rationale for not selecting these alternatives that would provide for greater mitigation is that they "would likely result in increased costs and lost revenue to the trust beneficiaries, thereby not meeting DNRC's purpose and need," id. at 6-6. As described above, however, DNRC's trust obligations do not require it to maximize revenue at the expense of bull trout survival and compliance with the Endangered Species Act.

Because FWS's analysis of the impacts on threatened bull trout due to road construction and laggardly road improvements is not based upon the best available science and fails to adequately assess near-term effects, FWS's biological opinion and incidental take permit are arbitrary and unlawful.

B. Riparian Buffer

FWS's analysis of the effect of DNRC's action on bull trout is also flawed with respect to proposed forestry activities within riparian buffer zones that are key to bull trout survival. FWS notes that "bull trout strongholds primarily occur in watersheds with little or no past timber harvest." BiOp IV-31. There is no causal mystery here: the connection between intact streamside forest and healthy in-stream habitat is straight forward and well documented. See, e.g. BiOp IV-173. Riparian tree stands preserve the narrow temperature range that bull trout will tolerate by shading streams in the summer and moderating cold in the winter. See BiOp IV-173–174. Their branches and trunks fall into the river as "large woody debris" that provide the complex forms of cover and habitat that bull trout need at every stage of their life cycle. See BiOp IV-20. Meanwhile, their roots anchor the bank, stabilizing the physical integrity of the channel and controlling sedimentation, two functions crucial for bull trout, which hold in stream margins and rely on clean, loose gravel for spawning. See BiOp IV-21.

In an attempt to protect the "important riparian functions" provided by streamside forest, the HCP establishes a 50-foot no-harvest buffer beside streams supporting bull trout. See BiOp IV-179. However, this buffer is "no-harvest" in name only: up to 20 percent of the so-called no-

harvest zone may be logged under the plan. See id. FWS's summary dismissal of the negative impacts of this "limited" harvest—in riparian areas it acknowledges as sensitive—is arbitrary, and is especially so in the absence of any affirmative rationale, such as a forest management rationale, for the logging.

By way of rationale, FWS states that the DNRC will conduct harvest in the no-harvest zone "in order to emulate natural disturbance regimes due to fire, insect, and disease infestations." Id. But FWS provides no support for its inference that emulation of natural disturbances benefits the forest. In fact, the opposite is true: "emulation of natural disturbances" appears to be a logging method that involves a range of "treatments," including clearcutting. BiOp I-10. Meanwhile, FWS acknowledges that "[r]egardless of the buffer size, the effectiveness of a buffer may be diminished when the riparian vegetation community is exposed to disturbance, either through natural means or manmade disturbance." BiOp IV-175–176; see also Murphy, M.L., *Forestry Impacts on Freshwater Habitat of Anadromous Salmonids in the Pacific Northwest and Alaska: Requirements for Protection and Restoration*, NOAA Coastal Ocean Program Decision Analysis Series No. 7 at 58-64 (1995) ("Murphy 1995") at 63 (natural disturbances can compromise the stability of buffer zones, which are often not large enough to cushion large-landscape-scale events); Chamberlin, T.W. et al., *Timber Harvesting, Silviculture and Watershed Processes*, in: *Influences of Forest and Rangeland Management on Salmonid Fishes and their Habitats*, 19 American Fisheries Society Special Publication 181, 192 (Meehan, W.R., ed., 1991 ("Chamberlin 1991") at 189 (any amount of logging can introduce long-lasting hydrologic changes—only maintaining intact surface and subsurface soil structure can assure normal hydrologic behavior); Belt, J.H. et al., Report No. 8, *Design of Forest Riparian Buffer Strips for the Protection of Water Quality: Analysis of Scientific Literature* 23 (1992) ("Belt et al. 1992") at 14 (the scientific literature indicates that harvesting within the buffer zone can cause damaging sedimentation and soil compaction, as for example by vehicles skidding logs over the surface); Murphy 1995 at 63 (timber harvest on the outer edge of a riparian buffer may degrade a riparian forest through exposure to light and wind); U.S. Dep't of Agric. et al., *Forest Ecosystem Management: An Ecological, Economic, and Social Assessment* V-28 (1993) (same); Hibbs, D.E., *Vegetation Dynamics in Managed Coastal Riparian Areas*, 4 Coastal Oregon Productivity Enhancement Program 7-8 (increased light exposure reduces herbaceous cover by increasing shrub growth and decreasing tree regeneration). Furthermore, FWS ignores the fact that while DNRC's harvest activities within the riparian buffer zone may "emulate natural disturbance[s]," BiOp at IV-179, these disturbances will be in addition to, not in place of, natural disturbance events including fire and flooding that already will occur. FWS's failure to consider these cumulative impacts is arbitrary and capricious.

Instead of analyzing the impacts of DNRC's plan to harvest trees in the no-harvest zone—an action which it acknowledges will lower buffer effectiveness—the FWS merely dismisses these impacts as "minimal" or "negligible," in part because such harvest will "still be subject to the requirements of the SMZ [Streamside Management Zone] Law," which requires minimum tree retention, prohibits clearcutting in the immediate riparian area, and protects bank edge trees and trees in the stream. BiOp IV-190, IV-241. However, the FWS does not say how these legal limitations will prevent jeopardy to the fish. Its silence on this important question alone is arbitrary and capricious. Moreover, the best available science does not support reliance

on the SMZ Law—which allows logging up to 50% trees in a SMZ—to protect bull trout. See Belt et al. 1992 (the scientific literature does not support, as protective of streams and fish, forest management regimes involving selective removal of vegetation from riparian buffer strips); see also Murphy 1995 (scientific understanding of buffer widths has evolved; whereas only stream temperature was considered in the past, scientists now understand that riparian zones are also essential for sediment filtering and large woody debris recruitment; a protective forest management regime takes into account multiple, landscape-specific factors); Chamberlin 1991 (scientific understanding of buffer widths has evolved; buffer zones that are based on simplistic criteria and that do not consider biophysical processes are outdated). Indeed, Belt et al., upon which FWS relies in its Biological Opinion, BiOp at IV-176, 197, evaluated Idaho forest management prescriptions that required retention of 75% of pre-harvest shade over salmonid-bearing streams and determined that:

In terms of protection of water quality and fish habitat, research does not show that maintaining 75%, or any other pre-harvest level of shade, will assure the salmonid temperature standards are met.

and

[N]either the literature nor the FPA suggest that the vegetation removal constraints--i.e., the 75% current shade and the leave tree requirements--will generally meet the qualitative requirement to provide soil stabilization and water filtering effects.

Belt et al. 1992, p. 23. FWS fails to support its determination that an even lower harvest level (50%) allowed in the riparian buffer zone under the DNRC HCP will not jeopardize bull trout.

Finally, FWS has not supported its apparent determination that harm to bull trout due to streamside logging will be mitigated “to the maximum extent practicable.” 16 U.S.C. § 1539(a)(2)(B)(ii). DNRC rejected an alternative that would apply more stringent federal riparian buffer restrictions because: “This alternative would decrease the opportunity for timber harvest and would result in a revenue loss; therefore, implementing this alternative would not meet the economical feasibility screening criteria. Further, this alternative conflicts with DNRC’s management philosophy to emulate natural disturbances to achieve DFCs [desired future conditions].” FEIS at 3-32–33. Once again, as described above, DNRC’s revenue-loss rationale does not render essential protections for bull trout impractical. Further, neither DNRC nor FWS has attempted to explain why DNRC’s “management philosophy” to allow timber harvest activities within a “no-harvest” buffer benefits bull trout or constrains DNRC’s selection of management alternatives.

For all of these reasons, FWS’s biological opinion and incidental take permit concerning bull trout are arbitrary and unlawful.

IV. FAILURE TO PROTECT GRIZZLY BEARS

The grizzly bear, *Ursus arctos horribilis*, once numbered more than 50,000 individuals in its North American range south of the Canadian border, which extended from mountainous areas throughout western North America eastward into the Great Plains. Facing intense human persecution and habitat destruction, the grizzly bear population plummeted to fewer than 1,000 individuals occupying less than two percent of the species' former range. The FWS listed the grizzly bear as a threatened species pursuant to the Endangered Species Act ("ESA") on July 28, 1975. Today, grizzly bear populations are known to persist in only five areas in the lower-48 United States. Two of these areas—the Cabinet-Yaak Grizzly Bear Ecosystem and the Northern Continental Divide Ecosystem ("NCDE")—encompass state lands that are the subject of DNRC's HCP.

FWS's biological opinion and incidental take permit violate the ESA with respect to DNRC's abandonment of "core area" grizzly bear management in favor of a "seasonally secure" and "quiet" area approach to grizzly bear management in northwest Montana's Stillwater Block (containing the Stillwater and Coal Creek State Forests). The Stillwater Block is within the NCDE grizzly bear recovery zone. According to the Biological Opinion, there are an estimated 765 grizzly bears in the NCDE. BiOp II-23. Although FWS believes that the NCDE population is increasing at a mean annual rate of 3 percent, *id.*, "[h]uman-caused mortality remains an important concern for the recovery of grizzly bears," BiOp II-29. Forest management activities on state lands within the NCDE may result in grizzly bear mortality due to: high road densities and subsequent decreases in secure habitat; habitat fragmentation and destruction of habitat for denning and foraging; and an increased risk of human/bear encounters. BiOp II-30.

Grizzly bears in the lands covered by the HCP depend upon secure habitat for their survival. BiOp II-16 ("Secure habitat is important to the survival and reproductive success of grizzly bears, especially adult female grizzly bears."). According to the Biological Opinion, "[s]ecure habitat for grizzly bears (also referred to as core areas) is specifically defined by the Interagency Grizzly Bear Committee (IGBC) (1998) as areas that are at least 0.3 mile from any open road or motorized trail and that receive no motorized use of roads or trails during the period they are considered secure habitat (typically at least 10 years)." BiOp II-45. Prior to DNRC's adoption of the HCP, DNRC protected grizzly bear core habitat in the Stillwater Block, covering approximately 39,600 acres. *See* Admin. R. Mont. 36.11.432. Specifically, DNRC was required to "[d]esign projects to result in no net decrease from baseline levels calculated in 1996 in the ... security core." *Id.* at 36.11.432(1)(d). Further, DNRC was to maintain security core areas "intact for periods approximating 10 years, to the extent practicable." *Id.* Timber harvesting activities within and adjacent to grizzly bear core habitat were permissible only during grizzly bear denning season, *id.* at 36.11.432(1)(e), and DNRC was required to "[r]etain no less than 40% of any BMU sub-unit (trust lands only) in hiding cover", *id.* at 36.11.432(1)(k). *See also* BiOp II-45.

Under the HCP, DNRC will abandon "core area" protections for grizzlies in the Stillwater Block. DNRC's sole rationale for lifting essential restrictions on logging in grizzly bear secure habitat is to allow more logging within the Stillwater Block. *See* BiOp II-87.

Instead of protecting secure grizzly habitat, “the DNRC HCP would implement a combination of seasonally secure areas and quiet areas. DNRC commits to seasonally restricting human uses from important grizzly bear habitats, but also managing larger blocks of habitat, ‘quiet areas’, undisturbed by major human disturbances for periods of at least eight years.” *Id.* Even the HCP’s “quiet” areas, however, are subject to substantial disturbances.

On the Stillwater Block, resting subzones could receive up to 30 days of use per year for small projects, including salvage Should management needs specifically for salvage exceed 30 days, usable days allowed for small projects in other subzones would have to be forfeited. Therefore, the occasional impacts of protracted salvage would be localized and would be offset or minimized; i.e., DNRC cannot invoke the allowance everywhere.

In the rare need for a larger salvage project (typically in response to a large fire) resulting in these allowable annual days in total to be exceeded, a one-time allowance would be triggered for additional operating days up to the length of one full non-denning season (i.e., 150 days). Any time this occurs, DNRC would mitigate potential adverse effects by initiating a new eight-year rest period.

BiOp II-87–II-88. “In the event of a natural disturbance triggering a changed circumstance,” even these “rested subzones could be further interrupted for salvage harvest.” BiOp II-88. In other words, there is nothing in the HCP that would prevent annual disturbances in core grizzly bear habitat that previously was “off-limits” to commercial logging activity.

FWS acknowledges that “core” grizzly habitat will decrease under the HCP, “represent[ing] a possible increased risk of mortality to grizzly bears due to encounters with humans, along with an increase in the amount of otherwise suitable feeding, breeding, or sheltering habitat that grizzly bears might avoid.” BiOp at II-89. FWS nonetheless concludes that seasonal road restrictions and DNRC’s “quiet areas” approach will satisfy grizzly bears’ habitat requirements. *Id.* at II-89–II-90. In FWS’s words,

We expect that some grizzly bears may experience localized adverse effects as a result of the approach [taken in Montana’s HCP], causing a shift in habitat use. However, our analysis above indicates that these effects would occur infrequently within a grizzly bear home range, would be short-term and that grizzly bears would have adequate habitat unaffected by human activity elsewhere within their home ranges for breeding, feeding and sheltering.

Id. at II-90; *see also* U.S. Fish and Wildlife Service, Record of Decision, Proposed Issuance of a Permit to Montana Department of Natural Resources Conservation, Authorizing Incidental Take of Endangered and Threatened Species on Forested Trust Lands in Western Montana (2011) at 21 (“Despite the dissolution of the Stillwater Core under the proposed HCP, rotation of harvest activities, seasonal restrictions on roads along with restrictions on activities in spring habitat, post-denning habitat, and near den sites, would reduce the risk of effects on grizzly bears due to

the presence of roads and human activity in key habitat areas. Therefore, no mitigation additional to the HCP is warranted or proposed.”).

FWS failed to support its conclusion with scientific evidence. Indeed, the “rotating quiet areas” and “seasonally secure areas” approach embraced by the HCP was subjected to a peer review when it was first proposed for the Flathead National Forest Plan more than a decade ago. *See* BiOp at II-46, II-85 – 86 (acknowledging that HCP approach is based upon NCDE access group proposal for the Flathead National Forest). McLellan et al.’s “Peer Review of the Motorized Access Management Strategies for Grizzly Bear Habitat in the Northern Continental Divide Ecosystem” (Sept. 19, 2000) found the “added risk and uncertainties” under the HCP’s approach unjustified. Among other things, McLellan et al. concluded:

- The seasonal dates chosen to guide when gates opened and closed for grizzly security did not reflect actual grizzly habitat use. The first reason was that the break between Spring and Summer was not chosen based on bear biology, but on when.... “the public believes that summer begins...” Second, data from the North Fork suggests that for those bears, the seasonal division may be at the end of July, not June. The reviewers concluded, “If roads closed to protect bears during the spring are opened on June 30, then bears in portions of the NCDE will not have security in their spring [seasonally secure area] for 1 month.” McLellan et al., at 10 (Sep. 19, 2000).
- The size of seasonally secure areas is insufficient to protect grizzly bears in the fall. *Id.*
- “There appears to be no data on the effectiveness of seasonally closed roads,” and indeed, the data suggests that they are ineffective to protect grizzly bears. Specifically, “[w]hen all other measured variables are equal, adult female bears appear to avoid areas with high densities of low use roads in spring and summer ... If densities of gated roads are excessive, [seasonally secure areas] may not be as secure as hoped. In addition, it is not clear that areas with networks of roads that are only closed seasonally will be regarded by bears the same as permanently closed roads.” *Id.* at 11.

Based on the McLellan critique, federal land managers opted to maintain core area protections—which are supported by a large body of science—rather than adopting the less-protective seasonally secure areas/rotating quiet areas approach that defies this body of science. *See* BiOp at II-85.

Neither DNRC nor FWS presents new evidence that justifies a different conclusion now. Instead, FWS asserts that the harm to grizzly bears under the HCP will be temporary and grizzly bears may utilize other habitat within their home ranges for breeding, feeding and sheltering. BiOp at II-90. However, even short-term or seasonal human activity may cause grizzly bears to avoid otherwise high-quality habitat. R. D. Mace and J.S. Waller, Final Report: Grizzly Bear Ecology in the Swan Mountains, Montana 1997, at 73; Lee Metzgar, A Review Of: Rationale and choices made in the review and development of an access direction proposal for the NCDE grizzly bear ecosystem, Nov. 30, 1998 at 8 (“the pattern of avoidance of roads is consistent and convincing”). Grizzly bears avoid areas of high road density even if the roads are closed to

public travel, negating the benefit of seasonal closures. Mace and Waller at 72-73; Metzgar at 9 – 10 (“research indicated that grizzly bears consistently were displaced from roads and the habitat surrounding roads often despite even low levels of human use”) quoting a FWS 1995 report, also citing Mace and Waller. Metzgar concludes that seasonal road closure is insufficient, stating that “[a]ppropriate evidence would show, for instance, that spring closures of moderate-use roads results in spring use by grizzlies equivalent to areas with only low-use roads.” Metzgar at 19. In addition, by avoiding roads bears may be forced into habitat of lesser quality that they would not otherwise choose, with obvious consequences to their security, survival, and in the case of sows, the survival and security of their cubs. Mace and Waller at 72-73 (research suggested that “grizzly bears can persist in areas with roads, but spacial avoidance will increase and survival will decrease as traffic levels, road densities, and human settlement increases”).

The overall pattern of avoidance of roaded areas is present in all seasons, though grizzly bears cannot always avoid these areas, “all roads in all habitats lower the probability of use by females” Metzgar at 8, citing Mace and Waller at 70. Mace and Waller conclude that seasonal variation in road avoidance occurs because in certain seasons, particularly the spring, grizzly bears are unable to avoid heavily roaded areas. “The appropriate conclusion is that these bears avoid roads in spring, but sometimes are unable to do so because of high road densities in their spring range.” Metzgar at 9, see also Mace and Waller at 73. Furthermore, “data tell us that, if prime spring range of grizzlies is heavily roaded, bears’ behaviors will reflect a combination of avoidance and, in the absence of other options, use. Both behaviors may result in stress to the animals and can reasonably be viewed as contributing to the negative rate of change for [South Fork Grizzly Bear Study] females.” Metzgar at 19. This overwhelming scientific evidence confirms the inadequacy of the HCP’s reliance on seasonal road closures and temporary so-called quiet areas as substitutes for core area protection.

The presence of roads and human activity present a mortality risk due to grizzly bear-human interactions. BiOp at II-89; Mace and Waller at 73 (study found that bear deaths caused by humans “were directly influenced by road access, development of grizzly bear habitat, and conditioning of grizzly bears to unnatural food sources near roads”). The purportedly “short-term” nature of those interactions does not preclude the resulting mortality. FWS has failed to consider these important factors outlined above. Furthermore, FWS’s “speculative evidence” does not satisfy the ESA requirement that the agency use the “best scientific and commercial data available.” Ariz. Cattle Growers’ Ass’n v. U.S. Fish and Wildlife Serv., 273 F.3d 1229, 1244 (9th Cir. 2001).

FWS also has failed to support its conclusion that DNRC has mitigated the HCP’s concededly harmful impacts to grizzly bears to the maximum extent practicable. DNRC justified its abandonment of secure habitat protections in the Stillwater because the more protective management regime would impede DNRC’s “ability to meet its trust mandate to generate revenue for the trust beneficiaries from those lands.” HCP FEIS at 6-6. Likewise, DNRC rejected an alternative that would require fewer new roads because doing so “would decrease the opportunity for timber harvest and would result in a revenue loss.” Id. at 3-33. However, as described above, the alleged constraint that DNRC’s trust mandate places on its ability to

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conserve grizzly bears is illusory: as described above, DNRC need not, and indeed must not, always place revenue generation above all other considerations in managing state lands. Furthermore, even if greater grizzly bear protections were to eliminate DNRC's ability to generate revenue from the Stillwater Block, which DNRC has not shown to be the case, DNRC is not required to obtain revenue from every parcel of state land that it manages. Neither DNRC nor FWS has demonstrated that providing greater mitigation for the HCP's harm to grizzly bears in the Stillwater Block is impracticable.

FWS's conclusion, therefore, is arbitrary and capricious, is not based on the best available science, and fails to require DNRC to mitigate harm to grizzly bears to the maximum extent practicable. Accordingly, FWS's action violates the agency's obligations under both section 7 and section 10 of the ESA. See 16 U.S.C. §§ 1536(a)(2), 1539(a)(2)(B)(ii),(iv).

V. CONCLUSION

DNRC proposes to increase threats to bull trout and grizzly bears and their habitat through road building and logging over a 50-year period without sufficiently minimizing those threats through an adequate habitat conservation plan. In approving DNRC's proposal, FWS violated section 7 of the ESA by preparing a biological opinion and incidental take statement that are arbitrary and not based upon "the best scientific and commercial data available." 16 U.S.C. §1536(a)(2). FWS also violated section 10 of the ESA by authorizing DNRC to "take" bull trout and grizzly bears based on an arbitrary and inadequate assessment of the impact of DNRC's proposed actions on the species and without requiring DNRC to mitigate those impacts "to the maximum extent practicable." Id. § 1539(a)(2)(B)(ii),(iv). If FWS does not remedy these legal violations within 60 days, Friends of the Wild Swan, Montana Environmental Information Center, Natural Resources Defense Council, and Stephen Braun intend to challenge FWS's actions in federal court under both the ESA and NEPA.

Sincerely,



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