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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

SAVE OUR CABINETS, EARTHWORKS, and DEFENDERS OF WILDLIFE; Plaintiffs, v. UNITED STATES FISH AND WILDLIFE SERVICE, Defendant.	Case No. **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF**

CORPORATE DISCLOSURE STATEMENT

Plaintiffs Save Our Cabinets, Earthworks, and Defenders of Wildlife are non-profit conservation organizations. None of the plaintiff organizations has a parent corporation and no publicly held corporation owns a ten percent or greater ownership interest in any of the plaintiff organizations.

INTRODUCTION

1. This case challenges the March 31, 2014, determination by the United States Fish and Wildlife Service ("FWS") that the proposed Montanore copper and silver mine will not jeopardize the survival and recovery of bull trout and grizzly bears listed as threatened species under the Endangered Species Act ("ESA") or adversely modify designated critical habitat for the bull trout. See U.S. Fish & Wildlife Serv., Final Biological Opinion on the Effects to Bull Trout and Bull Trout Critical Habitat From the Implementation of Proposed Actions Associated with the Plan of Operations for the Montanore Minerals Corp. Copper/Silver Mine (March 31, 2014) ("Aquatic BiOp"); U.S. Fish & Wildlife Serv., Final Biological Opinion on the Effects to Grizzly Bears From the Implementation of Proposed Actions Associated with Plan of Operations for the Montanore Minerals Corp. Copper/Silver Mine (March 31, 2014) ("Terrestrial BiOp").

2. The proposed Montanore Mine would transform a remote landscape in the Cabinet Mountains of northwest Montana into a large-scale industrial operation involving the mining and processing of up to 20,000 tons of ore every day for up to twenty years. The mine project is proposed in an area of primarily national forest and federal wilderness lands that contain some of the last remaining undeveloped habitat for imperiled populations of bull trout and grizzly bears in the region.

3. As required by section 7 of the ESA, 16 U.S.C. § 1536, FWS issued a biological opinion analyzing the effects of the proposed mine on protected species. Though its biological opinion acknowledged the already precarious status of the affected bull trout and grizzly bear populations and catalogued substantial adverse impacts to these populations and their habitat from the Montanore Mine, FWS ultimately dismissed the mine's threats to these protected species. With respect to bull trout, FWS concluded that the mine's adverse impacts will be inconsequential because the project will affect a subset of the total number of local bull trout populations that persist across the Columbia River Basin and its consituent watersheds. But this conclusion is not supported by any evidence that bull trout populations beyond the mine's reach are adequately abundant, diverse, or well distributed to ensure that the reduction or loss of local populations affected by the mine will not tip the species too far into danger; indeed, the agency faced substantial evidence that this is not so. Further, FWS's conclusion runs counter to its own findings that the bull trout populations and habitat that the Montanore Mine would damage or destroy have unique conservation value, such that their importance for the species' survival and recovery cannot rationally be measured merely by the fraction of total bull trout or miles of stream habitat they represent.

4. As required by ESA implementing regulations, 50 C.F.R. § 402.14, FWS also determined the extent to which bull trout may lawfully be "taken"—i.e.,

harmed or killed—as a result of the Montanore Mine. To measure allowable take, FWS decided to rely in part on the extent to which the mine will reduce flows in project-area streams that harbor bull trout. If the mine reduces stream flows in excess of the percentages predicted in FWS's biological opinion, or if flow reductions affect more stream-miles than predicted in the biological opinion, the allowable take level will be exceeded and the agency will be required to re-initiate ESA consultation to ensure that the true magnitude of impacts from the mine will not jeopardize bull trout. However, FWS determined that the mine's effects on stream flow will not materialize in several critical streams for decades after the project commences, by which time it will be too late to take action to protect bull trout from flow reductions that prove larger than FWS predicted. Accordingly, predicted stream flow reductions cannot serve the regulatory function of a metric for take, which is to signal to the agency if the mine's effects on protected species prove more severe than anticipated. By the time the agency can ascertain whether the mine will cause more damage to bull trout-occupied streams than predicted in the biological opinion, the damage to the species will be irreversible.

5. Regarding grizzly bears, FWS concluded that the mine's greatest threat will be a substantial increase in human use of grizzly bear habitat and associated risks of human-caused mortality due to poaching, mistaken identification by hunters, and the killing of bears because of a real or perceived

need for self defense. Yet the agency dismissed this threat to a population of bears that already teeters on the brink of extinction because the mine proponent has promised to fund a suite of public education and related measures that aim to reduce conflicts between humans and grizzly bears in the Cabinet Mountains region. FWS concluded that implementing the mine project and associated conflict reduction measures will ensure a net reduction in human-caused grizzly bear mortality across the affected ecosystem. This conclusion, however, is not supported by evidence regarding the number of grizzly bears that are likely to be killed as a result of the mine or the extent to which the promised conflict reduction measures can prevent human-caused mortalities. Further, FWS's assertion that mitigation measures can neutralize the substantial increase in human-caused mortality risks from the mine is contradicted by evidence that implementing the key conflict reduction strategies relied on in the biological opinion over the past seven years has failed to reduce the number of human-caused grizzly bear deaths in the Cabinet Mountains region.

6. The Cabinet Mountains region offers one of the last remaining strongholds for bull trout and grizzly bears in northwest Montana, yet populations of both species already are hanging on by a thread. FWS's conclusion that interposing a massive mining operation into this landscape will not jeopardize the

survival or recovery of either species lacks foundation in the record, contradicts the agency's own findings, and thereby violates the ESA.

JURISDICTION AND VENUE

7. Plaintiffs bring this action pursuant to the judicial review provisions of the Administrative Procedure Act, 5 U.S.C. §§ 701-706, which waive the defendants' sovereign immunity.

8. This Court has jurisdiction over plaintiffs' claims pursuant to 28 U.S.C. § 1331 (federal question) and may issue a declaratory judgment and further relief pursuant to 28 U.S.C. §§ 2201-2202.

9. Venue lies in the District of Montana because plaintiff Save Our Cabinets is headquartered in Montana; the lands at issue in this suit are located in Sanders County, Montana; and a substantial part of the events giving rise to plaintiffs' legal claims occurred in the District of Montana. 28 U.S.C. § 1391(e)(1).

PARTIES

10. Plaintiff Save Our Cabinets is a Montana non-profit organization dedicated to protecting wild lands, wildlife, and water quality in the Cabinet Mountains of northwest Montana, especially the Cabinet Mountains Wilderness Area. Save Our Cabinets is headquartered in Heron, Montana.

11. Plaintiff Earthworks is a non-profit organization dedicated to protecting communities and the environment from the adverse effects of mineral development. Earthworks is headquartered in Washington, D.C., and has field offices across the country, including Missoula, Montana. Earthworks has a long history of advocacy concerning hard rock mining in the Cabinet-Yaak region of northwest Montana to protect public health, fish, wildlife, and clean water—including throughout the permitting process for the proposed Montanore Mine. Earthworks members live and recreate in northwest Montana, including the Cabinet Mountains area.

12. Plaintiff Defenders of Wildlife ("Defenders") is a national nonprofit conservation organization headquartered in Washington, D.C., with offices throughout the country, including Missoula, Montana. Defenders has more than 393,000 members, including 1,698 in Montana. Defenders is a science-based advocacy organization focused on conserving and restoring native species and the habitat on which they depend, and has been involved in such efforts since the organization's establishment in 1947. Defenders has advocated for grizzly bear recovery at least since grizzlies were listed as threatened under the Endangered Species Act. These efforts include establishing a grizzly bear compensation program in 1997 to pay ranchers for livestock losses to grizzlies, for which Defenders has paid more than $400,000; and an extensive on-the-ground conflict

reduction program in which Defenders has invested more than $500,000 to implement more than 250 projects, including several in the Cabinet-Yaak grizzly bear recovery area. Defenders also has commented on numerous management plans affecting grizzly bears, including those relevant to the Cabinet-Yaak grizzly population and recovery area.

13. Plaintiffs have a longstanding interest in the preservation and recovery of bull trout and grizzly bears in the Northern Rocky Mountains region, including the Cabinet-Yaak ecosystem in northwest Montana. Plaintiffs actively seek to protect and recover bull trout and grizzly bears through a variety of actions including public outreach and education, investment in conflict reduction measures, scientific analysis, advocacy, and when necessary, litigation. Plaintiffs have participated actively in available public comment processes concerning the proposed Montanore Mine and its effects on bull trout and grizzly bears, including by filing extensive comments on the proposed and final environmental impact statements and draft record of decision for the Montanore Mine issued by the U.S. Forest Service.

14. Plaintiffs' members, staff, and volunteers use and enjoy the Cabinet Mountains Wilderness and surrounding national forest lands for a wide range of activities, including recreational pursuits such as hiking, camping, backpacking, bird watching, and wildlife watching (including observation of bull trout and

grizzly bears); as well as spiritual renewal and aesthetic enjoyment. Plaintiffs' members, staff, and/or volunteers have viewed bull trout and grizzly bears or signs of grizzly bear presence in and around the Cabinet Mountains Wilderness and have engaged in extensive scientific, educational, and advocacy efforts aimed at maintaining a healthy and intact ecosystem in the Cabinet Mountains that supports native fish and wildlife. By issuing a biological opinion that allows the Montanore Mine project to proceed in a manner that jeopardizes the survival and recovery of bull trout and grizzly bears, FWS's actions will harm Plaintiffs' interest in viewing bull trout and grizzly bears and maintaining a healthy and intact ecosystem in the Cabinet Mountains. Accordingly, the legal violations alleged in this complaint cause direct injury to the aesthetic, conservation, recreational, scientific, educational, and wildlife preservation interests of the Plaintiffs and their members, staff, and volunteers.

15. The aesthetic, conservation, recreational, scientific, educational, and wildlife preservation interests of Plaintiffs and their members, staff, and volunteers have been, are being, and unless their requested relief is granted, will continue to be adversely and irreparably injured by FWS's failure to comply with federal law. These are actual, concrete injuries that are traceable to FWS's conduct and would be redressed by the requested relief. Plaintiffs have no adequate remedy at law.

16. Defendant U.S. Fish and Wildlife Service is an agency of the United States Department of Interior and is responsible for administering the provisions of the ESA with regard to freshwater aquatic and terrestrial species, including bull trout and grizzly bears.

STATUTORY FRAMEWORK

17. Congress enacted the Endangered Species Act, 16 U.S.C. §§ 1531-1544, to "provide a program for the conservation of … endangered species and threatened species" and to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved …." Id. § 1531(b). The ESA "obligates federal agencies 'to afford first priority to the declared national policy of saving endangered species.'" Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Bureau of Reclamation, 426 F.3d 1082, 1084-85 (9th Cir. 2005) (quoting Tenn. Valley Auth. v. Hill, 437 U.S. 153, 185 (1978)).

18. Section 7 of the ESA prohibits federal agencies from taking discretionary actions that would "jeopardize the continued existence of any endangered species or threatened species" or cause the "destruction or adverse modification" of habitat designated as "critical" for such species. 16 U.S.C. § 1536(a)(2). An agency action "jeopardizes" a protected species if it "reasonably would be expected, directly or indirectly," to reduce appreciably the species' likelihood of survival or recovery "by reducing the reproduction, numbers, or

distribution of that species." 50 C.F.R. § 402.02; see Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 932 (9th Cir. 2007) (holding that significant impairment of species' recovery prospects alone may constitute jeopardy).

19. To enforce this substantive mandate, "[a]n agency's decision whether to take a discretionary action that may jeopardize endangered or threatened species is strictly governed by ESA-mandated inter-agency consultation procedures." Forest Guardians v. Johanns, 450 F.3d 455, 457 (9th Cir. 2006) (citations omitted); see 16 U.S.C. § 1536 (establishing consultation requirements). If the proposed action is expected to affect a protected species, the agency must initiate formal consultation with the appropriate federal wildlife agency, which is FWS for freshwater and terrestrial species such as bull trout and grizzly bears, 50 C.F.R. § 402.01(b).

20. The consultation process culminates in the issuance of a biological opinion, in which FWS must determine—based on "the best scientific and commercial data available," 16 U.S.C. § 1536(a)(2)—whether the proposed action will jeopardize the survival and recovery of a protected species, id. § 1536; 50 C.F.R. § 402.02. In its biological opinion, FWS also must determine whether the proposed action will destroy or adversely modify a protected species' designated critical habitat. 50 C.F.R. § 402.14(g)(4); see 16 U.S.C. §§ 1532(5)(A) (defining "critical habitat"), 1533(a)(3)(A) (directing Interior Secretary to promulgate

regulations designating critical habitat for listed species). "The purpose of designating 'critical habitat' is to set aside certain areas as 'essential' for the survival and recovery of the threatened species," and provide for the protection of those areas through the section 7 consultation process. Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1075-76 (9th Cir. 2004) (citing 16 U.S.C. § 1532(5)). Destruction or adverse modification occurs "when an action causes 'appreciable diminishment' of the value of critical habitat for survival or recovery." Rock Creek Alliance v. U.S. Forest Serv., 703 F. Supp. 2d 1152, 1192 (D. Mont. 2010) ("Rock Creek Alliance II") (emphasis in original) (quoting Gifford Pinchot Task Force, 378 F.3d at 1069-70), aff'd in part 663 F.3d 439 (9th Cir. 2011); see 50 C.F.R. § 402.02.

21. If FWS concludes that a proposed action is likely to jeopardize a protected species or destroy or adversely modify its critical habitat, the action may not proceed as proposed. See 16 U.S.C. § 1536(a)(2). In that circumstance, FWS must determine whether a "reasonable and prudent alternative" to the proposal exists that would avoid jeopardy to the species and destruction or adverse modification of critical habitat. Id. § 1536(b)(3)(A).

22. If FWS concludes that implementing the proposed action (or the identified reasonable and prudent alternative) will not jeopardize protected species and will not destroy or adversely modify critical habitat, the agency must include

in its biological opinion an "incidental take statement," which specifies the amount or extent of any "taking" of protected species that may be authorized as a result of the action. 50 C.F.R. § 402.14(i)(1). Under the ESA, "take" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" a protected species "or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19). The taking of protected species is prohibited unless specifically authorized in an incidental take statement. Id. §§ 1538(a)(1)(B), 1539. Accordingly, the amount of take authorized in an incidental take statement serves as a "'trigger' that, when reached, results in an unacceptable level of incidental take …." Ariz. Cattle Growers Ass'n v. U.S. Fish & Wildlife Serv., 273 F.3d 1229, 1249 (9th Cir. 2001). In that circumstance, the protection from take liability provided by the incidental take statement lapses and the federal agencies must re-initiate consultation under section 7 to ensure that the proposed action will not jeopardize the affected species. Id.; see 50 C.F.R. § 402.16(a).

THE MONTANORE MINE

23. The Montanore Minerals Corporation ("MMC") proposes to construct a copper and silver mine that would bore under the Cabinet Mountains Wilderness area in the Kootenai National Forest approximately 18 miles south of Libby, Montana. The mine would operate seven days per week for sixteen to twenty years, extracting up to 20,000 tons of ore each day. In addition to the mine adits,

the Montanore project would require construction of approximately 14 miles of high-voltage electric transmission line, waste rock storage facilities, a wastewater treatment plant, wastewater holding and seepage collection ponds, pipelines for transporting water and mine tailings, and tailings storage facilities; paving and widening of approximately 13 miles of roads; and associated clearing of trees and vegetation.

24. This large-scale industrial operation would disturb more than 1,500 acres of land in a remote area of northwest Montana that presently is characterized by pristine expanses of glaciated peaks, forested valleys, and rivers and streams that are among the top 5% purest waters in the continental United States. The area of the proposed mine is home to countless species of plants and abundant native wildlife, including mountain goats, bighorn sheep, pikas, wolverines, elk, moose, deer, mountain lions, and wolves. And it is one of the last remaining undeveloped habitats for the region's imperiled populations of bull trout and grizzly bears.

25. Because the proposed action will affect bull trout and grizzly bear populations protected under the ESA, the U.S. Forest Service, which is the lead federal agency with authority to permit the mine, initiated section 7 consultation with FWS in 2011. On March 31, 2014, FWS issued the challenged biological opinion, in which it determined that the proposed Montanore Mine will not

jeopardize the survival or recovery of bull trout or grizzly bears and will not destroy or adversely modify bull trout critical habitat.

FACTS RELATING TO BULL TROUT CLAIMS

I. BULL TROUT STATUS AND CONSERVATION NEEDS

26. The bull trout, Salvelinus confluentus, is the Northwest's largest migratory char (a close relative of trout). Historically, bull trout thrived in major river drainages from northern California and Nevada north to Alaska, and from Puget Sound on the Pacific coast east to Montana and Alberta.

27. Bull trout exhibit both resident and migratory life-history strategies. Resident bull trout spend their entire life cycle in the stream in which they spawn and rear. Migratory bull trout, in contrast, spend one to four years in their natal stream before migrating to mature in a lake, river, or—in some coastal areas—the ocean. Migratory bull trout tend to be larger than resident fish—commonly exceeding two feet in length—and produce more eggs, thereby contributing a larger share to population levels than resident fish. Migratory bull trout also facilitate genetic exchange and have the capacity to replenish isolated resident populations that are diminished by environmental disturbances. For these reasons, FWS has determined that the persistence of migratory bull trout is critical to the species' survival and recovery.

28. Compared to other salmonids, bull trout have highly specific habitat requirements. To spawn, develop, and survive, bull trout require water that is very cold—optimally 35 to 39 degrees Fahrenheit—and very clean. As discussed in more detail infra, excess sediment suspended in stream water or deposited on stream bottoms impairs bull trout spawning, feeding, and other vital behaviors and is fatal to bull trout at high levels. In addition, bull trout are acutely sensitive to stream flow reductions, which can exacerbate stream warming, concentrate pollutants, and produce seasonally dry reaches that cut off access to essential habitat. Bull trout also are sensitive to changes in streamside vegetation, stream channel form and stability, and impediments in their migratory corridors.

29. These specific habitat requirements make bull trout uniquely vulnerable to environmental disturbance. Land use activities that degrade water quality or reduce stream flows—such as mining, road building and maintenance, logging, irrigation, grazing, and residential and commercial development—have caused dramatic declines in bull trout population levels. In addition, dams now block many bull trout migration corridors, leading to the loss of most migratory populations across the species' range. As a result, FWS's most recent bull trout status assessment concluded that approximately seventy-two percent of bull trout "core area" populations—which consist of one or more interbreeding local populations and are the basic units on which FWS gauges the species' recovery—

are at risk or at high risk of extirpation. FWS determined that just 3.3% of core area populations across the species' range are at low risk of extirpation. Due to this precarious status, bull trout throughout the coterminous United States are listed as a threatened species under the ESA. 64 Fed. Reg. 58,910 (Nov. 1, 1999).

30. The pattern of declining numbers, contracting range, and loss of life history diversity that affects the species across its range is replicated within the Columbia River Basin, where the Montanore Mine is proposed. FWS has designated the Columbia River Interim Recovery Unit as one of five bull trout population segments that are essential for the survival and recovery of the species. Yet throughout this recovery unit local populations of bull trout are at best stable and more often declining. Bull trout have been extirpated from an estimated 55% of their historic range within the Columbia River Basin and many of the fish that remain persist in small, isolated populations that are highly vulnerable to extirpation.

31. The watershed surrounding the site of the proposed Montanore Mine offers one of the few large-scale undeveloped habitats for bull trout that remain in the Columbia River basin. Nevertheless, the effects of past habitat destruction and fragmentation have left the two bull trout core area populations that the Montanore Mine would affect in a precarious state: According to FWS's most recent assessment, the Kootenai River Core Area population already is "at risk" of

extirpation due to very limited and/or declining numbers, range, and/or habitat. The Lower Clark Fork River Core Area population is "at high risk" of extirpation due to rapidly declining range and extremely limited bull trout numbers.

32. Within these vital but already diminished core areas, the Montanore Mine would harm local bull trout populations whose special conservation value FWS has recognized. Within the Kootenai River Core Area, the mine would threaten local bull trout populations in West Fisher River and in Libby Creek, which FWS considers "an important primary bull trout spawning and rearing stream," Aquatic BiOp 124, and is one of the few streams in the Columbia River Basin that continues to support both migratory and resident bull trout. Within the Lower Clark Fork River Core Area, the mine would affect local bull trout populations in Rock Creek and East Fork Bull River. These streams, too, are among the few in the basin that still harbor migratory bull trout essential for the species' survival, and substantial private and public investments have been made in efforts to reduce habitat fragmentation from dams that threatens these migratory fish. East Fork Bull River is considered "the single-most important bull trout spawning and rearing stream in the Lower Clark Fork bull trout core area." U.S. Dep't of Interior Comments on Supp. Envtl. Impact Statement for the Montanore Project 2 (Nov. 15, 2011). The Bull River supports more bull trout spawning than any other stream in the core area, with the greatest concentration of spawning and

egg incubation occurring in its East Fork. Accordingly, the challenged biological opinion acknowledges that "[m]aintaining spawning and rearing success in these two local populations is essential to maintaining the existing survival status and potential for recovery of the [Lower Clark Fork River] bull trout core area population." Aquatic BiOp 122.

33. The proposed Montanore Mine also would degrade designated bull trout critical habitat within the Kootenai and Lower Clark Fork River watersheds. Like the local bull trout populations it supports, the affected critical habitat—located in Libby Creek, Bear Creek, West Fisher Creek, Rock Creek, and East Fork Bull River—is both uniquely important for bull trout conservation and already severely degraded. FWS considers the designated critical habitat in the Lower Clark Fork River watershed, of which Rock Creek and East Fork Bull River are a part, "essential" for maintaining bull trout distribution within the Columbia River Basin. Id. at 46. This habitat is uniquely important to bull trout conservation because it encompasses the "evolutionary heart" of the migratory adfluvial life history form, id.—meaning bull trout that migrate from their natal stream to reside in lakes as adults and then return to headwater streams to spawn. The designated critical habitat in the Lower Clark Fork River basin also is "essential to bull trout conservation" because it provides "an important portion of the spawning and rearing habitat for Lake Pend Oreille"—a stronghold for the

struggling species in the Columbia River basin—"as well as an essential migratory corridor for bull trout from Lake Pend Oreille to be able to access productive watersheds upstream …." Id. at 47. FWS likewise has determined that the designated critical habitat in the Kootenai River Basin is "essential to bull trout recovery" because it supports the strongest adfluvial population across the species' range and the single largest spawning run of adult bull trout in the Columbia River Basin. Id. at 46.

34. However, even without the adverse impacts of the Montanore Mine, the critical habitat in these watersheds has already been degraded to the point that it is functioning "at risk" or "at unacceptable risk" for purposes of bull trout conservation. Under FWS's rubric, habitat that is functioning "at risk" may support isolated bull trout populations but may require active or passive restoration to support the species' recovery. In habitat that is functioning "at unacceptable risk," bull trout have been extirpated or are present only rarely or in low numbers. Active restoration of such habitat is necessary to begin recovering the species.

35. FWS published a bull trout recovery plan in 2002, which describes those actions the agency believes are reasonable and necessary to conserve the species. The recovery plan stresses that local bull trout populations have been extirpated in major portions of the Clark Fork River watershed, with many of the remaining populations so small as to seriously reduce the chance that they will

recolonize formerly occupied habitat. Accordingly, the recovery plan calls for a sustained net increase in bull trout abundance and distribution within the Clark Fork River watershed in order to ensure the species' long-term survival and recovery. Regarding the Kootenai River watershed, the recovery plan similarly states that increasing bull trout abundance and restoring distribution of key populations is necessary to ensure the species' long-term conservation. To that end, the recovery plan calls for, among other strategies, reducing sedimentation, cleaning up existing mine waste, improving instream flows, and actively restoring instream habitat in the same bull trout streams that the proposed Montanore Mine would further degrade.

II. FWS'S CHALLENGED DETERMINATIONS CONCERNING BULL TROUT

36. In the challenged biological opinion, FWS described numerous adverse effects that the Montanore Mine would inflict on bull trout and bull trout critical habitat in the Lower Clark Fork and Kootenai River watersheds. These effects include permanent stream flow reductions that would damage habitat quality and choke off access to valuable upstream areas, particularly for the larger and more fecund migratory bull trout; increased stream temperatures due to flow reductions and substantial discharges of treated mine wastewater that will be unacceptably warm for bull trout; substantial additions of sediment to bull trout-occupied streams during the project's initial phases; and physical degradation of

habitat that will promote intrusion of non-native fish that kill or compete with bull trout. FWS concluded that the mine would diminish or destroy entirely local bull trout populations in the project area—which the agency concedes would "slow the rate of survival and recovery" of the Lower Clark Fork and Kootenai River Core Area populations—and would "permanently reduce the functional ability of the affected critical habitat to a significant degree." Id. at 128.

37. Among other effects of the mine, the biological opinion predicted "significant and permanent degradation to important local bull trout populations" and critical habitat in the Libby Creek, Rock Creek, and East Fork Bull River drainages as a result of reduced stream base flows. Id. at 103. Base flow is the portion of a stream's water volume that derives from groundwater contribution, as opposed to runoff. During dry conditions, base flow is the primary, if not exclusive, source of running water in a stream. Because seasonally dry conditions in northwest Montana coincide with the most sensitive periods in the bull trout life cycle—spawning and egg incubation—the adverse effects of base flow reductions on bull trout are severe.

38. The biological opinion states that the Montanore Mine would reduce base flows on a long-term or permanent basis in multiple bull trout streams on the order of 10 to 20%, with corresponding reductions in available habitat. Some of the most substantial flow reductions would occur in streams of special

conservation value to the Lower Clark Fork and Kootenai River Core Area bull trout populations. In East Fork Rock Creek and East Fork Bull River, for example, FWS forecasted permanent base flow reductions of approximately 9% and 13%, respectively. This magnitude of flow reduction would exacerbate existing low-flow challenges for migratory bull trout, extending "the stream length, duration, or frequency of the existing passage restrictions" and potentially impeding access to spawning areas. Id. at 119. FWS concluded that the effect of these flow reductions on migratory fish would be "severe" and would result in measured reductions in population abundance and distribution. Id. Resident fish likewise would suffer permanent reductions in spawning and abundance. These effects would occur on top of base flow reductions expected from another mine, the proposed Rock Creek Mine, which would be located west of the Montanore site within the Cabinet Mountains and is likewise projected to permanently reduce base flows in Rock Creek and East Fork Bull River to the detriment of bull trout.

39. In Libby Creek near the Cabinet Mountains Wilderness boundary, FWS predicted that the Montanore Mine would reduce base flows more than 20% during the mine's operating phase, which would last 16 to 20 years. This substantial base flow reduction would proportionally decrease available habitat for bull trout spawning and egg incubation, "constitut[ing] a significant impact" to the local bull trout population. Id. at 95. While flows in this portion of Libby Creek

would increase during the mine's closure and post-closure periods, those increases would result from discharges of treated mine wastewater that would be unacceptably warm for bull trout. The planned discharges of warm water to Libby Creek would occur during base flow conditions—when stream levels are at their lowest and the discharges' impact on stream temperatures would be greatest—at a known bull trout spawning location. The biological opinion states that the combination of reduced base flows during the mine's operating phase and substantial warm water discharges thereafter "poses a serious threat to the viability" of the Libby Creek bull trout population. Id.

40. Notably, however, FWS conceded in its biological opinion that the Montanore Mine's impacts on bull trout could prove much worse. This is because the model FWS relied upon to quantify expected base flow reductions from the Montanore Mine and extrapolate effects on bull trout habitat is highly uncertain. Indeed, MMC's consultants, who developed the model, argued to the Forest Service that the model cannot provide reliable quantitative predictions of stream base flow reductions at the scale presented in the Forest Service's analyses for the Montanore Mine and in the biological opinion. The consultants also characterized as "crude" the methodology used to extrapolate habitat effects from the modeled flow reductions. Accordingly, FWS acknowledged that actual base flow reductions from the mine and associated losses of bull trout populations and habitat

"could be much greater or lesser" than stated in the biological opinion. Id. at 119-20. However, the biological opinion contains no analysis of the effect on bull trout or critical habitat in the event that the base flow reductions prove greater than predicted. Further, FWS stated that the true extent of base flow reductions will not be discernible for several decades after the mine project commences, by which time the mine's "damage to the groundwater system will be complete" and there will be no opportunity to protect bull trout from the effects of flow depletions larger than assumed in the biological opinion. Id. at 103.

41. In addition to base flow reductions, the biological opinion states that local bull trout populations in the Lower Clark Fork and Kootenai River Core Areas will suffer "severe impacts" from increases in stream sedimentation during the first two to four years of mine development. Id. at 101. Sediment that is suspended in stream water or deposited on stream bottoms in excess of natural levels has serious adverse effects on bull trout in all life stages. Fine sediment damages spawning habitat and decreases survival rates for bull trout embryos and newly hatched fish by impairing delivery of food and oxygen. Sediment deposition also can have "a very negative effect on survival, especially overwinter survival," of juvenile bull trout because it fills the spaces between stream-bottom pebbles that are an essential habitat feature. Id. at 85. At all life stages, substantially elevated sediment levels can be fatal to bull trout and even modestly

elevated levels can cause stress, loss or reduction of foraging capability, reduced growth and disease resistance, physical abrasion, clogged gills, and interference with orientation in homing and migration. Degradation of bull trout habitat due to elevated sediment levels also promotes intrusion by non-native fish. Accordingly, bull trout survival decreases with increases in stream sediment.

42. FWS determined that all bull trout streams within the project area except East Fork Bull River would suffer from sediment pollution during the initial phases of the Montanore Mine project. FWS predicted that the most severe sedimentation impacts would occur in the Libby Creek drainage, which, as described above, also would suffer from substantial base flow reductions during the mine's operating period and significant discharges of water that is too hot for bull trout. FWS also forecasted "severe impacts [from] short-term sediment increases" on bull trout populations in several other streams within the Kootenai River watershed, including Bear Creek and West Fisher Creek, which provide the greatest contributions in the project area to the Kootenai River Core Area bull trout population. Id. at 101. Although mitigation measures are expected to reduce stream sedimentation over the long-term, FWS conceded in the biological opinion that the affected local bull trout populations will be damaged—and some potentially extirpated—before the benefits of mitigation may be realized.

43. The biological opinion acknowledges that existing sediment pollution in the project area has degraded all of the streams that the Montanore Mine would further damage to the degree that they already function "at risk" or "at unacceptable risk" for bull trout. However, the biological opinion contains no data indicating the baseline sediment levels in the affected streams and no analysis of whether the quantity of sediment pollution anticipated from the Montanore Mine will increase sediment to levels that are intolerable for bull trout reproduction and survival. The biological opinion simply characterizes the anticipated sedimentation impacts as "severe" while nevertheless concluding that sedimentation will reduce the functional capacity of the affected critical habitat only "a small degree." Id. at 128.

44. FWS had before it the scientific information necessary to predict whether the Montanore Mine project will increase sediment to levels that will render the affected streams uninhabitable for bull trout. The biological opinion incorporates quantitative estimates of the sediment pollution anticipated in specific stream reaches during each year of the project. And as reflected in FWS's 2007 biological opinion for the nearby Rock Creek Mine, as well as the Forest Service's biological assessment for the Montanore Mine, baseline sediment data is available for many, if not all, of the streams the Montanore Mine would harm. However, FWS failed to use this information to determine whether anticipated sediment

pollution would likely doom specific bull trout populations to extirpation and render the affected bull trout critical habitat uninhabitable. Because the affected local populations are not fungible for purposes of bull trout conservation, FWS could not rationally ignore information that would reveal whether specific local populations are likely to survive the severe sedimentation impacts that the Montanore Mine would inflict on project-area streams.

45. FWS did acknowledge that, in concert, the harmful effects of the Montanore Mine would reduce bull trout reproduction and survival in the affected streams and potentially eradicate some number of local populations that are smaller and more vulnerable. Further, because of the conservation significance of the affected local populations and associated habitat, FWS concluded that development of the Montanore Mine is "likely to slow the rate of survival and recovery" of the Lower Clark Fork and Kootenai River Core Area bull trout populations. Id. at 103, 105. "The Service determined that the Lower Clark Fork River core area bull trout population will be adversely affected from the Proposed Action," id. at 103, because the streams threatened by the mine

> provide significant contributions of bull trout to the core area population and without offsetting mitigation the impacts to the local populations are likely to … decrease the numbers and reproduction of bull trout that help sustain the core area population at current levels. Without aggressive mitigation to offset these losses, it is likely that they will become permanent thus increasing the challenge of survival and recovery of the Lower

Clark Fork River core area bull trout population.

Id. at 105. FWS likewise concluded that the mine's damage to important local bull trout populations in the Kootenai River watershed would be severe enough to "slow the rate of survival of" the Kootenai River Core Area population. Id. at 103.

46. Despite these findings, FWS ultimately concluded that the Montanore Mine would not jeopardize bull trout survival or recovery nor destroy or adversely modify bull trout critical habitat. These conclusions rested on FWS's assertion that the mine's effects are too localized to matter for purposes of conserving the species. As described below, that assertion is not supported by the record.

47. FWS analyzes threats to bull trout at nested population scales. Because FWS has determined that sustaining each of five designated interim recovery units—including the Columbia River Interim Recovery Unit affected by the proposed Montanore Mine—is essential for the survival and recovery of the species, FWS considers actions that jeopardize bull trout at the scale of the interim recovery unit to jeopardize the species as a whole. FWS has divided each interim recovery unit into "management units," which generally encompass one or more river basins. Each management unit in turn consists of one or more core areas, which comprise one or more local populations.

48. Because the Montanore Mine would affect a subset of local bull trout populations supporting the Kootenai and Lower Clark Fork River Core Areas, and

a fraction of the core areas within the Columbia River Interim Recovery Unit, FWS concluded that the project will not jeopardize bull trout. The necessary implication is that adequate unaffected bull trout populations would remain to ensure the species' survival and recovery at the core area, management unit, and interim recovery unit scales notwithstanding the substantial adverse effects of the Montanore Mine. However, the biological opinion does not contain any analysis of the levels of bull trout abundance, distribution, or life history diversity that are necessary to sustain and recover the species within the affected core areas, management units, or interim recovery unit. Nor does it contain any evidence or determination that bull trout populations within the affected recovery unit, management units, and core areas are adequately robust to render expendable the local populations the mine would harm or destroy. On the contrary, the biological opinion states that the Kootenai and Lower Clark Fork River Core Area populations suffer from very limited or declining numbers, range, and/or habitat, making them "vulnerable" or "highly vulnerable" to extirpation. At the next scale of analysis, FWS's most recent status assessment concluded that the majority of core area populations constituting the Kootenai and Lower Clark Fork River Management Units are "at risk" or "at high risk" of extirpation. And at the recovery-unit scale, FWS acknowledged that "bull trout populations throughout the Columbia River basin are at best stable and more often declining," and "[f]ew bull

trout core areas are considered strong in terms of relative abundance and core area stability." Id. at 38. These determinations contradict FWS's theory that bull trout populations are strong enough at all management scales to render the Montanore Mine's effects negligible. Even assuming that the species were not already at risk of extirpation at each relevant scale—an assumption the record refutes—the suggestion that bull trout populations are fungible is contradicted by FWS's own conclusion that the local populations the mine would harm or destroy have unique conservation value, such that their importance for bull trout survival and recovery cannot rationally be measured by the fraction of total populations they represent.

49. FWS's conclusion that the Montanore Mine would not destroy or adversely modify bull trout critical habitat rests on a similar, and equally unsupported, rationale. Notwithstanding its inventory of severe and permanent effects to critical habitat with unique conservation value for bull trout, FWS ultimately concluded that the mine would not destroy or adversely modify critical habitat "based on the magnitude of the project effects in relation to the designated critical habitat at the Columbia River basin scale." Id. at 127. Like its no-jeopardy determination, FWS's no-adverse-modification determination implied that adequate critical habitat unaffected by the Montanore Mine would remain to ensure bull trout survival and recovery. Yet this conclusion, too, is unsupported by any assessment of the integrity of the Columbia River Basin critical habitat that lies

beyond the reach of the Montanore Mine's effects; the biological opinion states only that "[t]he condition of bull trout critical habitat varies across its range from poor to good" and acknowledges that the species' "depressed or declining" population level "is a reflection of the degraded habitat condition of bull trout range-wide." Id. at 42. Further, FWS's discounting of the Montanore Mine's adverse effects on critical habitat within the Lower Clark Fork and Kootenai River watersheds based purely on the scale of those effects contradicts, without explanation, its own determination that the critical habitat in these areas is "essential" to bull trout conservation because it contains irreplaceable spawning and rearing habitat and supports the strongest adfluvial bull trout population across the species' range. These unique attributes of the affected critical habitat documented in FWS's biological opinion undermine the theory underlying its "no adverse modification" determination that the habitat at risk from the Montanore Mine is dispensable.

III. FWS'S INCIDENTAL TAKE STATEMENT FOR BULL TROUT

50. Because it concluded that the proposed Montanore Mine will not jeopardize bull trout, FWS was required to include in its biological opinion an incidental take statement specifying the extent to which bull trout lawfully may be "taken"—i.e., killed or harmed—as a result of the mine. 50 C.F.R. § 402.14(i)(1).

51. In its incidental take statement, FWS asserted that "the actual amount or extent of the anticipated incidental take [of bull trout] due to changes in habitat conditions in the affected streams is unquantifiable." Aquatic BiOp 133. Therefore, FWS used "the extent and magnitude of predicted stream flow depletions, the extent and magnitude of anticipated warm water flow augmentation, and the extent and magnitude of expected sediment loading to measure the amount and extent of take." Id. With regard to the taking of bull trout from reductions in stream flow, FWS stated that allowable take from the mine

> will be exceeded if the measured level of baseflow depletions exceeds the predicted baseflow depletions described [in the biological opinion] for each stream and each "Streamflow Impact Estimate Location." Take will also be exceeded if the length of affected stream reach is more than that described for each affected stream.

Id. at 135 (internal citations omitted). In that circumstance, MMC's protection from take liability would lapse and FWS would be required to reinitiate section 7 consultation to ensure that the mine's actual stream flow effects—as opposed to the magnitude of effects predicted and analyzed in the original biological opinion—would not jeopardize bull trout or destroy or adversely modify bull trout critical habitat. However, the biological opinion acknowledged that "in most cases the actual observable flow depletions affecting bull trout aren't predicted to occur until well after mining is completed," id. at 89, at which point the mine's "damage to the groundwater system will be complete" and only minor improvements in the

affected streams' base flows will be possible, id. at 103. Thus, stream flow reductions in excess of predicted levels would not "trigger" re-initiation of consultation before the full effects of the mine are irrevocably unleashed on bull trout. Ariz. Cattle Growers, 273 F.3d at 1249.

FACTS RELATING TO GRIZZLY BEAR CLAIMS

I. GRIZZLY BEAR STATUS

52. Though once common throughout western North America, grizzly bears have suffered dramatic population declines due to persecution by humans and substantial habitat losses. In 1975, FWS listed grizzly bears across the lower-48 United States as a threatened species under the ESA. 40 Fed. Reg. 31,734 (July 28, 1975).

53. Today, only four populations of grizzly bears remain in the lower-48 states. One of these remnant populations persists in the Cabinet-Yaak Ecosystem ("CYE"), a roughly 2,600-square-mile area of primarily federal public lands in northwest Montana and the adjacent Idaho panhandle, which includes the site of the proposed Montanore Mine. In the challenged biological opinion, FWS estimated that just 42 grizzly bears remain in the CYE and stated that the population likely is declining. At this severely diminished size, the CYE grizzly bear population already is at risk of extirpation. To reach FWS's standard for

recovery, the population's downward trend must be reversed and its numbers must increase more than two-fold, to at least 100 bears.

54. Within the Cabinet Mountains portion of the ecosystem—which includes the site of the proposed Montanore Mine—FWS estimated only 21 grizzly bears remain. These bears are effectively isolated from those in the Yaak River portion of the ecosystem, which is separated from the Cabinet Mountains by the Kootenai River and U.S. Highway 2. Accordingly, the Cabinet Mountains grizzlies presently function as a freestanding sub-population which, with just 21 individuals, is highly vulnerable to extirpation. Indeed, FWS has determined that the State of Montana's program of "augmenting" the population by transplanting grizzly bears from other regions is the reason grizzly bears still can be found in the Cabinet Mountains.

II. FWS'S CHALLENGED DETERMINATIONS CONCERNING GRIZZLY BEARS

55. Notwithstanding the already precarious status of the affected population, FWS determined that the Montanore Mine will not jeopardize grizzly bear survival or recovery in the CYE. In its biological opinion, FWS acknowledged that the mine would displace up to seventy-five percent of the adult female grizzly bears in the Cabinet Mountains from their preferred habitat; exacerbate habitat fragmentation; and prompt a substantial influx of mine workers and recreational users into the remote project area, with a concomitant increase in

the risk of human-caused grizzly bear mortality. Nevertheless, FWS concluded that developing the Montanore Mine would in fact yield a net benefit to the dwindling CYE grizzly bear population because MMC and the Forest Service have promised a package of mitigation measures that FWS believes will more than offset the substantial adverse effects of the mine. This conclusion is without foundation.

56. As stated in the biological opinion, "[t]he most prominent direct and indirect effects on grizzly bears from the implementation of the proposed Montanore Mine project would stem from the influx of mine employees into this relatively remote area." Terrestrial BiOp 95. This is because increased human use of grizzly bear habitat proportionally increases the risks of human-caused bear mortality. From 2007-2013, 76% of known grizzly bear mortalities in the Cabinet-Yaak recovery zone were caused by humans. Most involved poaching, mistaken identification by hunters, or individuals shooting bears because of a real or perceived need for self defense. Even at current levels—without the Montanore Mine or the Rock Creek Mine proposed immediately to the west—human-caused grizzly bear mortality in the CYE "is limiting population increase and contributing to extinction risk." Id. at 121. Indeed, FWS acknowledged that, "given the small grizzly bear population," the existing human-caused mortality rate of

approximately one bear per year "is not sustainable with or without the Montanore Mine." Id.

57. Against this backdrop of unsustainable human-caused mortality and a declining grizzly bear population, "[t]he proposed Montanore Mine would substantially increase the number of people working, recreating or maintaining homes in the area" surrounding the project. Id. at 97. FWS predicted an influx of more than 800 people associated with the mine—on top of the 770 new residents predicted in connection with the nearby Rock Creek Mine. In addition to the presence of hundreds of mine workers at the project site, the ecosystem would have to absorb the effects of increased residential development in and near grizzly bear habitat and increased use of the forest for hunting and other forms of recreation—all of which pose elevated human-caused mortality risks for grizzly bears.

58. The risk of human-caused mortality from increased use of grizzly bear habitat in the CYE would be especially acute in the context of the Montanore Mine. As noted in the biological opinion, many of the individuals associated with the mine would be new to the area, which "would increase the risks of conflicts between people and grizzly bears because of their lack of experience and knowledge" about living safely in grizzly habitat. Id. Further, the biological opinion noted that "spike[s] in illegal [poaching] activities seem to correlate with

transient work forces that work 'around-the-clock' schedules," as would occur at the Montanore Mine. Id. at 99. Even in the absence of the Montanore and Rock Creek Mines, poaching has been a substantial source of grizzly bear mortality in the CYE. From 2001-2012, there were five known grizzly bear deaths from poaching in the CYE, plus an additional ten deaths during the 1982-2012 period that remain under investigation, of which a portion may have involved poaching. In addition, FWS acknowledged that some number of new residents will disregard recommendations for securing bear attractants. As a result, the agency acknowledged that "grizzly bears in the area could be exposed to a rapid increase in available garbage, pet foods and other household attractants with little opportunity to adapt," increasing conflict and mortality risks. Id. at 97. Further, FWS acknowledged that most human-grizzly conflicts related to attractants would occur on private lands where federal agencies lack jurisdiction to enforce compliance with conflict reduction measures.

59. Because of the CYE grizzly bear population's precariously small size, the killing of even a single bear would adversely affect survival and recovery prospects and increase extinction risk. The harm to the population would be substantially greater if a female bear is killed, as the survival rate of adult and sub-adult female bears has the greatest influence on grizzly bear population trends. Accordingly, the biological opinion stressed that "[t]he survival of female grizzly

bears is essential to the persistence and growth of the CYE grizzly bear population." Id. at 137. Currently, known human-caused grizzly bear mortality in the CYE is skewed toward females and female mortality already "exceeds levels that are sustainable and promote recovery." Id. FWS estimated that only four adult female grizzly bears remain in the Cabinet Mountains, and the agency predicted that the Montanore Mine would displace as many as three of these bears to a degree that would interfere with their reproduction. However, the biological opinion stated that the displaced females likely would become habituated to the constant mine activity after one or two years, allowing them to return to their preferred habitat near the mine. FWS acknowledged that this process of habituation would make the female bears even more vulnerable to illegal killing because of their increased exposure to and decreased wariness of people. Yet FWS optimistically asserted that these bears may manage to "habituate to the noise and activity of the mine without suffering the negative consequences of habituation by retaining wariness of less predictable or routine human activity, such as dispersed recreation," id. at 86, and stated that mitigation measures would "contribute to offsetting the risks associated with grizzly bears habituated to people and human activity at the mine," id. at 85.

60. As stated in the biological opinion, "[n]o empirical data is available with which to accurately predict the number of grizzly bear mortalities as a result

of the proposed mine over 30 years." Id. at 109. Accordingly, FWS conceded that it is "not able to predict and prevent all circumstances that could cause any one specific person, at a specific time and place, to kill or cause the death of a grizzly bear." Id. at 121. Nevertheless, the agency concluded that the Montanore Mine and associated influx of new residents and recreational users in the Cabinet Mountains "would result in no more than one grizzly bear mortality over the 30-year life of the mine." Id. at 111. The agency determined that no jeopardy to grizzly bears would result from the mine because the package of mitigation measures for human-caused mortality risks promised by MMC "would prevent conflict and/or resolve conflicts in ways that prevent the removal or human-caused death of more than one grizzly bear over the 30-year life of the project, thus more than offsetting the loss we anticipate from the project (one grizzly bear)." Id. at 103.

61. The main conflict reduction measures that MMC has promised to fund involve (1) providing an education program for area residents to disseminate information about living safely in grizzly country and "build support and understanding for the conservation of the Cabinet-Yaak grizzly population," (2) hiring a grizzly bear specialist to work specifically on conflict reduction efforts in the CYE, (3) hiring a wildlife law enforcement officer to work specifically in the CYE, (4) providing fencing and bear-resistant garbage containers for garbage

collection sites and National Forest campgrounds in the CYE, and (5) providing area residents with temporary electric fencing kits and bear-resistant garbage containers to deter grizzly bear activity near residences. The proportion of funding earmarked for addressing specific causes of mortality—such as poaching or grizzly bear attractants around residences—generally corresponds to the proportion of grizzly-bear deaths attributable to each cause. However, there is no evidence in the biological opinion that quantifies or otherwise characterizes the magnitude of increased mortality risk associated with the mine or the ability of specific mitigation measures to reduce or eliminate that risk. FWS simply asserts—with no evidentiary basis—that, "[b]ased on existing levels and causes of grizzly bear mortality in the Cabinet Mountains and CYE" and its description of the promised mitigation measures, developing the Montanore Mine would result in no more than one grizzly bear mortality over thirty years and "the mitigation plan conservation measures would prevent the human-caused mortality of more than one female grizzly bear over a 30-year period." Id. at 111.

62. The ambitiousness of FWS's assessment concerning the efficacy of conflict reduction strategies hardly can be overstated: Currently—without the Montanore or Rock Creek Mine in operation and without the 1,500-plus new residents associated with those projects—humans kill grizzly bears in the CYE at a rate of about one bear per year. FWS asserted that the suite of conflict reduction

measures associated with the Montanore Mine would be adequate to ensure that only one grizzly bear would be killed over a thirty-year period as a result of the major industrial activity and associated influx of more than 800 people into the Cabinet Mountains region from the Montanore Mine and prevent more than one additional grizzly-bear killing in the CYE that would have occurred in the mine's absence.

63. However, evidence before the agency indicates that the primary conflict reduction measures FWS relied upon to reach its no-jeopardy determination would be inadequate to offset the substantial increase in human-caused mortality risks from the Montanore Mine. As described in the biological opinion and agency publications cited therein, many of the core conflict reduction strategies in the Montanore Mine mitigation plan have been deployed in the CYE for at least eight years—but human-caused grizzly bear mortality has not declined. Montana Fish, Wildlife and Parks has operated a grizzly bear specialist program for more than two decades. Since 2007, funding from the proponents of the Rock Creek Mine has supported a grizzly bear specialist dedicated to reducing human-caused grizzly bear mortality in the CYE specifically. Based in Libby, Montana, this specialist has implemented many of the conflict reduction measures identified as essential in the challenged biological opinion, including the provision of bear-resistant garbage containers and electric fencing kits to project-area residents and

extensive public education programs concerning management of grizzly bear attractants and hunting and recreating safely in grizzly habitat. In collaboration with the Forest Service's CYE grizzly bear researcher, the CYE grizzly bear specialist has "work[ed] closely with residents to identify and secure bear attractants, to foster public awareness of grizzly bear behavior and biological needs and to create a public understanding of bear-human conflicts causes in order to reduce social jeopardy" to the species. Id. at 65 (quotation omitted).

64. During this time period, however, the number of human-caused grizzly bear mortalities has not declined in the CYE—even in the absence of the proposed Montanore and Rock Creek Mines and associated influx of 1,500-plus new residents with mixed exposure and commitment to grizzly bear conservation. From 2000-2006, before deployment of focused conflict reduction efforts in the CYE, twelve documented human-caused grizzly bear mortalities occurred in the United States portion of the ecosystem. From 2007-2013—concurrent with the implementation of extensive public education and attractant-management efforts—thirteen documented human-caused grizzly bear mortalities occurred. Though these data come from FWS's own reports, FWS did not consider them in its biological opinion. Further, while MMC has promised to expand the existing conflict reduction program with additional personnel and funding, evidence that implementation of the key measures to date has not yielded a reduction in the

number of human-caused grizzly bear mortalities in the CYE undermines FWS's conclusion that such efforts, even on a greater scale, will be adequate to offset the substantially greater risks from the Montanore Mine.

FIRST CLAIM FOR RELIEF
(Arbitrary and Unlawful No-Jeopardy Determination for Bull Trout, 5 U.S.C. § 706(2)(A); 16 U.S.C. § 1536(a)(2))

65. Plaintiffs hereby reallege and reincorporate Paragraphs 1 through 64.

66. Under section 7 of the ESA, 16 U.S.C. § 1536, FWS must rationally determine, based on the best scientific and commercial information available, whether the proposed action will jeopardize the survival or recovery of a protected species.

67. In the challenged biological opinion, FWS concluded that the proposed Montanore Mine would not jeopardize the survival or recovery of bull trout because it would affect a subset of bull trout populations within the Kootenai and Lower Clark Fork River Core Areas and, by extension, a fraction of bull trout populations within the Columbia River Interim Recovery Unit—the scale at which the agency determines jeopardy to the species.

68. This conclusion is arbitrary and unlawful because it is not supported by evidence that bull trout populations within these areas but outside the Montanore Mine's sphere of effects are adequately abundant, well distributed, and diverse to ensure bull trout survival and recovery. Indeed, this conclusion runs

counter to the evidence before the agency, which indicates that the Kootenai and Lower Clark Fork River Core Area bull trout populations already are vulnerable and highly vulnerable to extirpation, respectively, and that bull trout populations across the Columbia River Interim Recovery Unit are generally weak and in decline. It also fails to account for FWS's determination that the local bull trout populations threatened by the Montanore Mine have special conservation value such that their importance for bull trout survival and recovery cannot rationally be measured by the fraction of total populations they represent.

69. Further, FWS's conclusion that the Montanore Mine would not jeopardize bull trout within the Kootenai or Lower Clark Fork River Core Areas is predicated on the agency's determination that these core areas will suffer only "lower level[s] of recruitment" from the affected local populations. This conclusion fails to account for the prospect—acknowledged elsewhere in the biological opinion—that the proposed mine could in fact cause outright extirpation of some number of local bull trout populations, either from substantial additions of unacceptably warm wastewater or increased sedimentation during the initial phases of the mine project. With regard to sedimentation impacts, this conclusion is unsupported because FWS failed to utilize readily-available evidence to ascertain whether the Montanore Mine is likely to increase sediment in specific streams to levels that would cause the extirpation of local bull trout populations. Moreover,

while FWS stressed that mine-induced reductions in stream base flows "could be much greater or lesser" than the quantitative predictions in the biological opinion, it failed to account for the substantial uncertainty in its modeling by considering the impact on core area populations in the event that the adverse effects on constituent local populations do prove "much greater" than predicted. In light of the special conservation value of the affected local bull trout populations, FWS's failure to consider the acknowledged possibility that these populations could suffer substantially greater adverse effects from base flow depletions than assumed in the biological opinion—including the possibility of outright extirpation—was arbitrary and unlawful. Further, FWS failed to utilize the best scientific information available, as the ESA requires, by disregarding evidence that would reveal whether the anticipated quantities of sediment pollution from the Montanore Mine are likely to cause the extirpation of specific local bull trout populations. 16 U.S.C. § 1536(a)(2); San Luis & Delta-Mendota Water Auth. v. Locke, 776 F.3d 971, 995 (9th Cir. 2014) (to satisfy "best available science" requirement, FWS cannot "ignore available studies" that bear on its determination).

70. FWS's conclusion that the mine's substantial adverse effects on bull trout would be insignificant at the scale of the affected core areas or interim recovery unit also is arbitrary and unlawful because it is not grounded in any assessment of the levels of bull trout abundance, distribution, or life history

diversity that are necessary to assure the species' survival and recovery. FWS cannot rationally dismiss concededly significant adverse effects on local populations without making any attempt to establish the magnitude of localized effects that the core area, management unit, and recovery unit populations can withstand before their survival or recovery is compromised. See, e.g., Nat'l Wildlife Fed'n, 524 F.3d at 936 (holding that agency issuing biological opinion "inappropriately evaluated recovery impacts without knowing the in-river survival levels necessary to support recovery"); Rock Creek Alliance II, 703 F. Supp. 2d at 1205 (holding that thorough review of species' current status is required to assure that agency's dismissing of impacts to local bull trout populations as "insignificant" will not "leave the species subject to 'death by a thousand pinpricks'") (quoting Rock Creek Alliance v. U.S. Fish & Wildlife Serv., 390 F. Supp. 2d 993, 1001 (2005) ("Rock Creek Alliance I").

71. By issuing a no-jeopardy determination for bull trout that lacks foundation in the record and runs counter to the agency's own findings, FWS violated section 7 of the ESA, 16 U.S.C. § 1536.

SECOND CLAIM FOR RELIEF
(Arbitrary and Unlawful Determination that Proposed Action Will Not Destroy or Adversely Modify Bull Trout Critical Habitat, 5 U.S.C. § 706(2)(A); 16 U.S.C. § 1536(a)(2))

72. Plaintiffs hereby reallege and reincorporate Paragraphs 1 through 71.

73. Under section 7 of the ESA, 16 U.S.C. § 1536, FWS must rationally determine, based on the best scientific and commercial information available, whether the proposed action will destroy or adversely modify designated critical habitat.

74. In the challenged biological opinion, FWS concluded that the proposed Montanore Mine would not destroy or adversely modify bull trout critical habitat "based on the magnitude of the project effects in relation to the designated critical habitat at the Columbia River Basin scale." Aquatic BiOp 127. This determination was arbitrary and unlawful because it is not supported by any assessment of the status of bull trout critical habitat across the Columbia River Interim Recovery Unit, nor any assessment of the extent, quality, and diversity of critical habitat that are necessary to assure bull trout survival or recovery at that scale. See id. at 42 (stating merely that the status of bull trout critical habitat across the coterminous United States "varies … from poor to good"). It is quintessentially arbitrary to dismiss as "not appreciable" concededly severe localized harm to bull trout critical habitat without articulating a defensible threshold at which such harm measurably diminishes the value of such habitat for the species' survival or recovery. See Nat'l Wildlife Fed'n, 524 F.3d at 936 ("It is only logical to require that the agency know roughly at what point survival and

recovery will be placed at risk before it may conclude that no harm will result from 'significant' impairments to habitat that is already severely degraded").

75. FWS's dismissal of documented adverse effects to bull trout critical habitat from the proposed Montanore Mine also is arbitrary because it contradicts FWS's own determinations that the designated critical habitat within the Lower Clark Fork River Critical Habitat Unit "is essential for conservation of the species," and that designated critical habitat within the Kootenai River Critical Habitat Unit is "essential to bull trout recovery." Aquatic BiOp 48. As described in the biological opinion, the stream reaches that the Montanore Mine would damage contain some of the most important bull trout spawning and rearing habitat in the Kootenai and Lower Clark Fork River watersheds. Because FWS's own analysis makes clear that the affected critical habitat has unique conservation value and that stream miles are not fungible, the bare assertion that these stream reaches constitute only a fraction of designated critical habitat within the affected Critical Habitat Units cannot sustain the agency's conclusion.

76. Finally, FWS's conclusion that sediment pollution from the Montanore Mine would "reduce the functional ability of critical habitat to a small degree below baseline conditions" is unsupported and violates the ESA's requirement that the agency "use the best scientific and commercial data available" in determining whether a proposed action is likely to destroy or adversely modify

designated critical habitat. 16 U.S.C. § 1536(a)(2). Though FWS had the necessary evidence before it, the agency failed to analyze whether predicted sediment pollution from the Montanore Mine, when added to baseline sediment levels, would likely render the affected critical habitat uninhabitable for bull trout. See San Luis & Delta-Mendota Water Auth., 776 F.3d at 995 (to satisfy "best available science" requirement, FWS cannot "ignore available studies" that bear on its determination).

77. By determining without foundation in the record and contrary to the agency's own findings that the proposed Montanore Mine will not destroy or adversely modify bull trout critical habitat, and by ignoring available scientific information bearing directly on that determination, FWS violated section 7 of the ESA, 16 U.S.C. § 1536.

THIRD CLAIM FOR RELIEF
(Unlawful Surrogate for Incidental Take of Bull Trout, 5 U.S.C. § 706(2)(A); 50 C.F.R. § 402.14(i)(1))

78. Plaintiffs hereby reallege and reincorporate Paragraphs 1 through 77.

79. Under ESA implementing regulations, 50 C.F.R. § 402.14(i)(1), FWS must include in a "no jeopardy" biological opinion an incidental take statement specifying the amount or extent of any taking of protected species that may be authorized as a result of the proposed action. Where, as here, FWS measures allowable take with a habitat surrogate instead of a population number, the

surrogate selected must "set forth a 'trigger' that, when reached, results in an unacceptable level of incidental take, invalidating the safe harbor [from take liability], and requiring [FWS] to re-initiate consultation." Ariz. Cattle Growers, 273 F.3d at 1249.

80. In its Incidental Take Statement for the Montanore Mine, FWS relied on the predicted magnitude of stream base flow reductions to measure allowable take of bull trout. FWS's use of this habitat proxy to measure allowable take is arbitrary and unlawful because this metric cannot serve as an effective "trigger" for re-initiating section 7 consultation if the threshold of expected take is exceeded. See id. The biological opinion acknowledged that "in most cases the actual observable flow depletions affecting bull trout aren't predicted to occur until well after mining is completed." Aquatic BiOp 89. Thus, in the event that actual base flow depletions exceed the levels predicted in the biological opinion, the mine's irreversible effects on the groundwater system will already have been unleashed and there will be no opportunity to re-initiate consultation and modify the project to protect bull trout. Because their exceedance cannot effectively trigger re-initiation of consultation, the use of projected base flow reductions to measure authorized take of bull trout violates the ESA implementing regulations, 50 C.F.R. § 402.14.

FOURTH CLAIM FOR RELIEF
(Arbitrary and Unlawful No-Jeopardy Determination for Grizzly Bears, 5 U.S.C. § 706(2)(A); 16 U.S.C. § 1536(a)(2))

81. Plaintiffs hereby reallege and reincorporate Paragraphs 1 through 80.

82. Under section 7 of the ESA, 16 U.S.C. § 1536, FWS must rationally determine, based on the best scientific and commercial information available, whether the proposed action will jeopardize the survival or recovery of a protected species.

83. FWS's determination that the increased risks of human-caused mortality from the proposed Montanore Mine would not jeopardize grizzly bear survival or recovery is arbitrary and capricious. FWS's conclusion that a planned suite of promised mitigation measures will more than offset these increased risks does not follow rationally from the facts found and, indeed, runs counter to the evidence before the agency.

84. First, FWS arbitrarily determined that the Montanore Mine would yield a net benefit to the Cabinet Mountains grizzly bear population because the mine would cause the killing of no more than one grizzly bear over a thirty-year period and the mitigation plan would prevent more than one grizzly bear killing that would have occurred in the mine's absence. Where the agency acknowledged that it lacked any basis for quantifying the human-caused grizzly bear deaths attributable to the mine and cited no evidence concerning the number of grizzly

bear deaths the mitigation strategies may reasonably be expected to prevent, it was arbitrary for FWS to base its no-jeopardy determination on the assertion that the mine's "costs" respecting human-caused mortality will amount to one bear while the mine's "benefits" will add up to more than one avoided human-caused mortality. Under the ESA, FWS "must demonstrate a rational explanation for its conclusion[]," Rock Creek Alliance I, 390 F. Supp. 2d at 1008—not simply a guess that the costs and benefits of the proposed action conveniently will cancel each other out.

85. Further, FWS's conclusion regarding the efficacy of planned mitigation measures for reducing human-grizzly bear conflicts is arbitrary because evidence before the agency reveals that those measures have not yielded a reduction in the number of human-caused mortalities in the CYE even in the absence of the Montanore and Rock Creek Mines. While the strategies relied upon in the biological opinion are useful measures to address certain localized conflicts and increase social tolerance for grizzly bears over the long-term, the track record of conflict reduction strategies implemented in the CYE to date reveals that such measures cannot rationally be relied upon to neutralize the mortality risks from a massive industrial mining operation in the heart of the CYE grizzly population's remaining habitat. FWS failed entirely to consider these data. Given that grizzly bears in the CYE already are at risk of extinction, and FWS's acknowledgment that

any number of human-caused mortalities threatens the vulnerable population, the agency's unsubstantiated assertion that conflict reduction measures will "more than offset" the substantial increase in human-caused mortality risks from the mine cannot sustain its no-jeopardy determination.

86. By issuing a no-jeopardy determination for grizzly bears that lacks foundation in the record and does not follow logically from the agency's own findings, FWS violated section 7 of the ESA, 16 U.S.C. § 1536.

PRAYER FOR RELIEF

Therefore, plaintiffs respectfully request that this Court:

87. Declare that FWS violated § 7 of the ESA and its implementing regulations by concluding in its 2014 biological opinion that the proposed Montanore Mine will not jeopardize the survival or recovery of bull trout, jeopardize the survival or recovery of grizzly bears, or destroy or adversely modify bull trout critical habitat;

88. Declare that FWS violated § 10 of the ESA and its implementing regulations by authorizing the incidental take of bull trout consistent with predicted reductions in stream base flows;

89. Set aside FWS's 2014 biological opinion for the proposed Montanore Mine, including its incidental take statement, and enjoin FWS from authorizing

any take of bull trout or grizzly bears or destruction or adverse modification of bull trout critical habitat pending compliance with the ESA;

90. Award plaintiffs their reasonable costs, fees, and expenses, including attorneys fees, associated with this litigation; and

91. Grant plaintiffs such further relief as the Court may deem just and proper, including, if necessary, preliminary injunctive relief.

Respectfully submitted this 17th day of June, 2015.

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