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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO

CENTER FOR BIOLOGICAL DIVERSITY, et al.,

Plaintiffs,

v.

UNITED STATES BUREAU OF LAND MANAGEMENT, et al.,

Defendants,

and

P4 PRODUCTION, L.L.C.,

Intervenor-Defendant.

Case No. 4:21-cv-182-BLW

PLAINTIFFS' MEMORANDUM IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT

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INTRODUCTION

This case concerns the Bureau of Land Management's (BLM) unlawful approval of a significant new open-pit phosphate mine in southeast Idaho. The Caldwell Canyon Mine, proposed by P4 Production, LLC (P4)—a subsidiary of Bayer AG, would operate for more than 40 years, scarring the landscape with miles-long open pits, ore stockpiles, roads, railroads, powerlines, and other infrastructure. BLM provided a cursory and contradictory National Environmental Protection Act (NEPA) analysis of the mine that deprives the public from understanding the extent of its impacts, especially for the imperiled sage-grouse and upper Blackfoot River watershed. In failing to mitigate those impacts, BLM also violated numerous substantive obligations under the Federal Land Policy and Management Act (FLPMA) and Clean Water Act (CWA).

The Caldwell Canyon mine poses a particular threat to the greater sage-grouse, an iconic species of the American West. The project area contains at least five of the few remaining leks for the vulnerable East Idaho Uplands sage-grouse population. BLM acknowledged that the mine may extirpate at least one of these leks, yet disregarded mandatory sage-grouse protections it adopted in 2015 and 2019 conservation plans for the species.

Like other phosphate mines that have contaminated rivers and harmed wildlife, the Caldwell Canyon Mine will release the heavy metal selenium into the environment, including by depositing selenium-laden dust into nearby waterways. Once it enters the aquatic environment, selenium can rapidly bioaccumulate in food chains and reach levels that are toxic to aquatic life. Selenium pollution in this region has already killed hundreds of livestock in southeast Idaho and caused deformities and other adverse effects in birds, aquatic animals, and other wildlife. Indeed, the selenium levels in the Blackfoot River, which runs at the base of this mine, are so high that they violate state water quality standards. Selenium from the Caldwell Canyon mining operation

with further exacerbate these issues and make it more difficult for the Blackfoot River to come into compliance with state water quality standards.

Also concerning, ore from the mine will be processed at a nearby Superfund hazardous waste site in Soda Springs, Idaho, also owned by Bayer AG and operated by P4, the cleanup plan for which is currently failing to prevent contaminated groundwater from leaving the property.

Defendants' approval of the Caldwell Canyon Mine is unlawful under NEPA, FLPMA, and the CWA. First under NEPA, BLM's review of the mine was fatally flawed because it: 1) ignored impacts of processing ore at the Soda Springs Plant and made contradictory statements about the necessity of this analysis; 2) failed to adequately disclose how selenium-contaminated dust will impact the Blackfoot River; 3) insufficiently analyzed the cumulative effects of phosphate mining in southeastern Idaho, preventing the public from understanding the impact of adding another phosphate mine to the region; 4) ignored important impacts to sage-grouse, such as functional habitat loss and loss of population connectivity for the declining East Idaho Uplands sage-grouse population; and 5) reviewed an overly narrow set of alternatives and excluded proposed alternatives without reasoned explanation. Second, the mine authorizations also violate BLM's substantive mandates under FLPMA because BLM disregarded mandatory protections for sage-grouse under its Resource Management Plan (RMP) by approving road and powerline construction within 2 and 3.1 miles of the Dry Valley lek and failing to ensure P4's compensatory mitigation was sufficient to offset all sage-grouse habitat impacts. Finally, BLM's authorizations fail to comply with Idaho water quality standards, in violation of FLMPA and the CWA.

The Court should remedy these deficiencies by vacating BLM's Final Environmental Impact Statement (FEIS), Record of Decision (ROD), and subsequent authorizations for the Caldwell Canyon Mine.

BACKGROUND

P4, a subsidiary of Bayer AG, seeks to develop the Caldwell Canyon Mine in southeast Idaho to recover phosphate ore. AR071219 (FEIS, S-1). The ore from the mine will then be transported to and processed at the Soda Springs Plant—also owned by Bayer AG and operated by P4—to produce the herbicide glyphosate for use in Roundup products.[1]

The Soda Springs Processing Plant is a federal Superfund site that was added to the National Priorities List due to concern that groundwater contaminated with selenium, cadmium, sulfates, and fluoride was flowing south from the property towards the town of Soda Springs. AR028495; AR028427. Subsequent investigation also identified potential exposures to employees and community members from radionuclides and metals (arsenic and beryllium). AR028427. In September, 2018, EPA found that groundwater contamination at the Soda Springs Plant is contributing to surface water contamination in several streams and creeks that exceed Idaho water quality standards. AR028447. EPA stated that remediation of selenium contamination has been slower than expected and groundwater standards "will not be achieved in the foreseeable future." AR028444. Source piles onsite continue to contaminate groundwater, creating a plume that extends beyond the property boundary of the plant. AR028444, -46.

The Caldwell Canyon Mine itself will be located approximately 13 miles northeast of Soda Springs and will disturb approximately 1,559 acres of previously undeveloped land. AR004021 (ROD, 24); AR071243 (FEIS, 1). Surface ownership in the proposed mine area includes a mix of private, state endowment, and federal public lands. AR004002 (ROD, 5). The phosphate deposits

[1] *See* AR071255–56 (FEIS, 13-14) (stating that ore from Caldwell Canyon will be transported to the Soda Springs Processing Plant); AR028383–87 (stating that the Soda Springs Processing Plant refines phosphate for making Roundup herbicide); AR028415–18 (stating that Bayer AG acquired the Soda Springs Processing Plant when it acquired Monsanto).

at issue are owned predominantly by the federal government and managed by BLM, which issued leases granting P4 the exclusive development rights. AR003998, AR004001 (ROD, 1, 4).

Mining operations associated with federal mineral leases are subject to 43 C.F.R. Part 3590. Before conducting "any operations under any lease(s)," the operator is required to submit a mining plan to BLM that "shall show in detail the proposed development or mining operations" to be conducted, including the proposed roads, structures, and facilities to be developed in conjunction with the lease. 43 C.F.R. §§ 3590.2, 3592.1(a), (c). BLM has authority to disapprove the plan, and to require modifications, and must "promote operative practices which will avoid, minimize or correct damage to the environment." *Id.* §§ 3592.1(d), 3590.0-1. "No operations shall be conducted except as provided in an approved plan." *Id.* §§ 3592.1(a), § 3590.2(e).

The Caldwell Canyon Mine and Reclamation Plan approved by BLM in the 2019 ROD entails construction of two new open pits (North Pit and South Pit) from which it will extract phosphate ore. AR004021–22 (ROD, 24-25). Trucks will haul the ore on a newly constructed two-mile long road connecting the pits to an ore stockpile at the currently inactive Dry Valley Mine. AR071255 (FEIS, 13). From this location, P4 will haul the ore daily by trains up to 130 rail cars long to the Soda Springs Plant for processing. AR071255–56 (FEIS, 13–14). The Mine and Reclamation Plan also includes improvements to an existing service road along Caldwell Creek ("Caldwell Canyon Service Road") and construction of a roughly 6-mile powerline along Slug Creek Road ("Slug Creek Powerline"), water management features, an ore stockpile pad, rail loading tipple, and other facilities. AR004021–28.

After issuing the 2019 ROD, BLM issued four Rights of Way (ROWs) associated with the project. On November 14, 2019, BLM approved a ROW grant for the East Caldwell Haul Road (IDI-038996), amended on April 7, 2021. AR077118–28, AR077107–17. On April 7, 2021, BLM

approved ROW grants for a water pipeline (IDI-039279), fiber optic line (IDI-039280), and powerline (IDI-039281) along the same corridor as the East Caldwell Haul Road. AR077105–06 (decision); AR077129–50 (ROWs). BLM also issued a Phosphate Use Permit (IDI-38927) to approve the Caldwell Canyon Service Road. AR077102. Finally, on September 20, 2019, BLM issued a "Notice to Proceed" authorizing P4 to proceed with surface disturbance and initial mining activities. *Id.* This brief refers to these actions as the Caldwell Canyon "authorizations."

Mining and processing phosphate from Caldwell Canyon will take a serious environmental toll. In terms of species impacts, the mining, land disturbance to develop roads and other infrastructure, and transportation activities will impact wildlife by disrupting their movement through the project area due to noise, human activity, and habitat loss; and through injury or mortality from collision with mining equipment. Affected big game species include mule deer, elk, and moose. AR071345–48 (FEIS, 103-06). Other potentially impacted species include the greater sage-grouse, Columbian sharp-tailed grouse, gray wolf, pygmy rabbit, bald eagle and other raptors, and the northern leopard frog. AR071351–55 (FEIS, 109–13). The mine may also impact Canada lynx and North American wolverine. AR024337.

In particular, the Caldwell Canyon Mine area contains habitat supporting the isolated and declining East Idaho Uplands greater sage-grouse population. AR003180; AR071353. Surveys have confirmed the presence of greater sage-grouse within and near the proposed mine pit itself, AR008054; AR015939, and the project area contains at least five sage-grouse leks (breeding grounds). AR003181; AR003305. The mine threatens numerous harms to sage-grouse, including habitat loss, avoidance, and fragmentation; impaired movement between seasonal use areas; behavioral disruptions from increased noise; bird mortality through vehicle collisions; and increased perching opportunities for predators. AR065104–05, -44; AR071359; AR003182;

AR003189. Of particular concern is the Dry Valley lek, located roughly one mile east of the North mine pit, 0.3 miles east of the Union Pacific Railroad, and 1.5 miles north of the Dry Valley tipple area where a crusher will be operating. The Dry Valley lek was first discovered during the 2016 breeding season. Four males were observed on the lek in 2016 and in 2017, and another male was observed there during the 2018 breeding season. AR074236; AR016510. BLM projects that substantial noise levels from the mine operations may "cause it to be abandoned." AR071329.

Mining activities will also adversely impact freshwater quality and quantity. The project will generate significant volumes of selenium-contaminated dust that will enter surface waters, including the Blackfoot River and its tributaries. AR071312 (FEIS, 70). Selenium and turbidity levels in these waterways already exceed state water quality standards. *Id.* at 58. Mining activities will also generate selenium and manganese groundwater plumes. AR071315–17 (FEIS, 73–75). In addition, the mine pits will permanently eliminate five springs and lower groundwater levels, decreasing stream flows. AR071222; AR071306–11; AR071315 (FEIS, S-4, 64-69, 73).

The phosphate mining industry, which has operated in southeastern Idaho for more than 100 years, AR053856, has caused significant selenium contamination. The rock above or layered between the phosphate ore, called "overburden," often contains selenium at "exceptionally high" levels compared to worldwide averages. AR053857. Selenium is harmful above very low levels and can concentrate—or bioaccumulate—in plants and animals. AR053859, -61. As of April 2012, over 600 head of sheep, cattle, and horses had died from selenium poisoning in the vicinity of phosphate mines in southeastern Idaho. AR053859. In addition, selenium concentrations in fish in the Blackfoot River watershed are "greatly elevated" and "exceed literature values linked to adverse effects." AR053860. Selenium contamination causes a "cascade of symptoms" in fish that include everything from spinal deformities to reduced egg viability and reduced growth in

juveniles. AR053861. Exposure to streams with elevated selenium levels can also cause embryo defects and mortality in birds. AR071359.

Phosphate mines have a history of becoming federal hazardous waste sites. "Historic phosphate mines have been the source of water quality impacts in exceedance of regulatory standards leading to 15 CERCLA (Superfund) sites in the Blackfoot River drainage area." AR074290 (ROD, 2).[2] Indeed, every inactive phosphate mine in Caribou County larger than an acre has been designated for CERCLA removal action. AR048417. This includes several P4 mines and the Dry Valley Mine, which will receive waste from Caldwell Canyon Mine. *Id.*

STANDARD OF REVIEW

Courts review NEPA, FLPMA, and CWA Section 1323 claims under the Administrative Procedure Act (APA). *See W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 481 (9th Cir. 2011); *Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1149 (9th Cir. 2010). Under the APA, a court must "set aside agency action that is 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'" *Kraayenbrink*, 632 F.3d at 481 (quoting 5 U.S.C. § 706(2)(A)). The court "must engage in a careful, searching review to ensure that the agency has made a rational analysis and decision on the record before it." *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 521 (9th Cir. 2010) (quotations omitted). An agency decision is arbitrary and capricious if, for example, the agency failed to consider an important aspect of the problem or articulate a rational connection between the facts found and the choice made. *Greater Yellowstone Coal.*, 632 F.3d at 481.

[2] *See also* AR074748 ("An area-wide investigation was conducted which shows elevated selenium levels exist in the vicinity of nearly all of southwest Idaho phosphate mines.")

ARGUMENT

I. PLAINTIFFS HAVE STANDING.

Plaintiffs' organizational and member declarations establish each of the three elements of Article III standing: injury in fact, causation, and redressability from BLM's failure to comply with NEPA, FLPMA, and the CWA. *See Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992).

Injury-in-fact exists "if an individual adequately shows that she has an aesthetic or recreational interest in a particular place, or animal . . . and that that interest is impaired by a defendant's conduct." *Ecological Rights Found. v. Pac. Lumber Co.*, 230 F.3d 1141, 1147 (9th Cir. 2000) (citations omitted). Plaintiffs need not show actual harm, only increased risk of harm, resulting from Defendants' action or omission. *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 860 (9th Cir. 2004); *see also Nation v. DOI*, 876 F.3d 1144, 1160 (9th Cir. 2017). Plaintiffs' members use and enjoy areas near the Caldwell Canyon Mine and Soda Springs Plant, including for hiking, fishing, camping, bird watching, photography, and drinking naturally carbonated spring water. Schmidt Decl. ¶¶ 8–9, 11, 15–16; Maughan Decl. ¶¶ 8–11, 14–15, 17–20; Lobdell Decl. ¶¶ 3, 5, 7–9; Fuller Decl. ¶¶ 7–9, 12–15. These individuals' use and enjoyment of these areas and the water and wildlife therein will be injured by the Caldwell Canyon Mine project. Schmidt Decl. ¶¶ 9–17; Maughan Decl. ¶¶ 13–23; Lobdell Decl. ¶¶ 4–9; Fuller Decl. ¶¶ 6, 10–11, 13–20. [3,4]

[3] Plaintiffs' injuries fall within the "zone of interests" that NEPA, FLPMA, and the CWA are designed to protect. *See, e.g.*, *Cantrell v. City of Long Beach*, 241 F.3d 674, 679 (9th Cir. 2001). (finding that an interest in preserving the natural environment and preventing adverse environmental effects "falls squarely within the zone of interests protected by NEPA"). Likewise, the interests Plaintiffs seek to protect are germane to their organizational purposes. Burd Decl., ¶¶ 1–19; Molvar Decl., ¶¶ 1–26; Krupp Decl., ¶¶ 2-13.

[4] In addition, the deficiencies in BLM's NEPA analysis forced Plaintiffs to divert significant resources to tracking down and analyzing information that should have been discussed in the FEIS. Burd Decl., ¶¶ 20, 24–26; Molvar Decl., ¶ 27; Krupp Decl., ¶¶ 14, 20.

The challenged action has "caused" these injuries because development of the mine would harm Plaintiffs' members' ability to enjoy recreation near the mine site and the ore processing plant, including by exposing them to increased but unknown quantities of pollution and diminishing their chances of observing sage-grouse. *Inland Empire Waterkeeper v. Corona Clay Co.*, 17 F.4th 826, 832 (9th Cir. 2021); *W. Watersheds Project v. Bernhardt*, 519 F. Supp. 3d 763, 786 (D. Idaho 2021).[5] The Court could redress Plaintiffs' injuries through declaratory relief, vacating the ROD approving the Caldwell Canyon Mine and enjoining the BLM from taking further action regarding the mine until it complies with NEPA, FLPMA, and the CWA. *See Cantrell*, 241 F.3d at 682; *Inland Empire Waterkeeper*, 17 F.4th at 832.

II. BLM VIOLATED NEPA.

NEPA is our "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a) (1978, as amended). It serves twin goals. First, it aims to ensure that federal agencies carefully consider detailed information regarding the environmental impact of a proposed action *before* reaching a decision on the action. *Ctr. for Biological Diversity v. Dept. of Interior*, 623 F.3d 633, 642 (9th Cir. 2010). Second, it ensures that information about the impacts is made available to members of the public so that they can play a role in the decision-making process. *Id.* At bottom, "NEPA promotes its sweeping commitment to 'prevent or eliminate damage to the environment and biosphere' by focusing government and public attention on the environmental effects of proposed agency action." *Marsh v. Oregon Nat. Resources Council*, 490 U.S. 360, 371 (1989) (quoting 42 U.S.C. § 4321).

[5] Even further, for NEPA, once a concrete injury is established, as it has been here, "the causation and redressability requirements are relaxed." *Cantrell*, 241 F.3d at 682. Plaintiffs therefore do not need to show that if BLM complies with NEPA, the mine will not be built. *Id.* "[A]ll that is necessary is to show that proper procedure *could* have" changed the substantive result. *California v. Azar*, 911 F.3d 558, 571 (9th Cir. 2018) (emphasis in the original).

The Council on Environmental Quality's (CEQ) 1978 NEPA implementing regulations (as amended in 1986 and 2005) also govern this case.[6]

NEPA and its implementing regulations require federal agencies to prepare an environmental impact statement (EIS) for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(c)(i); 40 C.F.R. § 1501.4. The "human environment" is defined "comprehensively to include the natural and physical environment and the relationship of people with that environment." 40 C.F.R. § 1508.14.

An EIS must take a "hard look" at all direct, indirect, and cumulative environmental effects of the proposed action and its alternatives. 40 C.F.R. §§ 1502.14, 1502.16; *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). Direct effects are those that are "caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a). Indirect effects are those that are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." *Id.* § 1508.8(b). A cumulative effect is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *Id.* § 1508.7. "Effects" are synonymous with "impacts." *Id.* § 1508.8.

[6] Although CEQ issued a final rulemaking in July 2020 fundamentally rewriting those regulations, the new rules only apply "to any NEPA process begun after September 14, 2020," or where an agency has chosen to "apply the regulations . . . to ongoing activities" and thus do not govern BLM's Caldwell Canyon Mine NEPA process, which began and was finalized before 2020. 40 C.F.R. § 1506.13 (2020). Citations throughout this brief are to the applicable 1978 regulations, which are available at https://www.energy.gov/sites/default/files/NEPA-40CFR1500_1508.pdf.

A. BLM failed to adequately consider the indirect effects of processing ore at the Soda Springs Processing Plant.

BLM's scant, one-sided discussion of the indirect effects of processing ore from the Caldwell Canyon Mine at the Bayer Soda Springs Processing Plant is arbitrary and capricious, and in violation of NEPA. BLM largely refused to consider the effects of ore processing at all, wrongly asserting that such impacts were outside the scope of the EIS. And, for the two topics for which BLM did acknowledge indirect impacts, socioeconomics and air quality, its analysis was biased and inadequate.

1. Indirect impacts from ore processing must be analyzed.

In determining whether an indirect effect is reasonably foreseeable, 40 C.F.R. § 1508.8(b), meaning that it must be considered in the EIS, there must be a "reasonably close causal relationship between the environmental effect and the alleged cause." *Dept. of Trans. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (cleaned up). The Ninth Circuit has applied this test to find that an EIS for an agency's authorization of mineral extraction must consider the environmental impacts from downstream use of those minerals. *Ctr. for Biological Diversity v. Bernhardt (Liberty)*, 982 F.3d 723, 738 (9th Cir. 2020).

Here, it is not even a close call as to whether ore processing is reasonably foreseeable result of this action. Producing elemental phosphorus through the processing of extracted phosphate ore *is the stated objective* of the Caldwell Canyon Mine. AR071255 (specifying that ore will be processed at the Soda Springs plant). Processing at the Soda Springs Plant is so integral to Caldwell Canyon Mine development that the project includes construction of a rail loop at the Soda Springs Plant to connect it to the mine and facilitate daily deliveries of ore for processing. AR071256. Directly on point, the Ninth Circuit has held that an EIS for a mining operation must consider all "[environmental] impacts associated with transport and off-site processing of…ore" because such

impacts are "prime examples of indirect effects that NEPA requires be considered." *S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of the Interior*, 588 F.3d 718, 725 (9th Cir. 2009); *see also Bernhardt (Liberty)*, 982 F.3d at 738 (holding that emissions from foreign consumption of oil are "surely" a reasonably foreseeable indirect impact of oil drilling authorization); *Sierra Club v. FERC (Sabal Trail)*, 867 F.3d 1357, 1375 (D.C. Cir. 2017) (emissions from downstream use of gas not just foreseeable, it is the entire purpose of the pipeline authorized by the agency); *Sovereign Iñupiat for a Living Arctic v. BLM* 555 F. Supp. 3d 739, 766-67 (D. Alaska 2021); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 73 (D.D.C. 2019) (where the "entire purpose" of a lease sale is to produce oil and gas for consumption, downstream use of that oil and gas, and the resulting greenhouse gas emissions, are reasonably foreseeable).[7]

In response to comments on the DEIS from Plaintiffs Western Watersheds Project and the Center for Biological Diversity that BLM was required to consider the effects of ore processing, BLM provides an inconsistent rationale. BLM states in one sentence that ore processing "is an indirect effect but is outside the scope of the analysis," but then says in the very next sentence that ore processing is "not an indirect effect of the proposed action" because the "effects from the processing plant would continue regardless of the project." AR071706.[8] That statement is contradicted by BLM's assertions crediting the Caldwell Canyon Mine for saving jobs at the processing plant. AR071382, -84 (FEIS, 140, 142). *See also* AR026331; AR068481; AR068804 (noting that without the Caldwell Canyon Mine, the plant will close). That these "two positions are nearly impossible to reconcile" makes it clear that BLM acted arbitrarily and capriciously when

[7] *Cf. Ocean Advocates*, 402 F.3d at 867-68 (holding that agency's authorization to expand dock at oil refinery would cause increase in oil tanker traffic such that NEPA required consideration of the increased risk of an oil spill).

[8] *See also* AR004076 (ROD, A-21) (ore processing at the Plant "is an indirect effect").

it failed to thoroughly consider "an important aspect of the problem"—i.e. whether the Soda Springs Plant's future operations depend on the Caldwell Canyon Mine. *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1175, 1196–97 (D. Colo. 2014); *Motor Veh. Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

Indeed, BLM's assertion that the processing plant will continue operating regardless of whether the Caldwell Canyon Mine is developed is based on unfounded assumptions and contradicted by BLM elsewhere in the record. The Soda Springs Plant currently processes ore from the Blackfoot Bridge Mine, which will likely cease operation in 2022. *See* AR0040010–20 (ROD, 22–23). BLM assumes, without providing any evidence, that the Soda Springs Plant will continue to operate "using phosphate otherwise available in the district after the Blackfoot Bridge Mine is depleted." AR071263 (FEIS, 21); *see also* AR071704, -06–07 (FEIS, E-40, E-42, E-43). Yet, BLM does not provide a single example of an alternative source and in fact acknowledges that "[i]f phosphate ore from other mines is not available or developed to replace ore production from the Blackfoot Bridge Mine, P4 Production's Soda Springs plant would have to curtail production or shut down." AR004019 (ROD, 22). In addition, BLM's assumption contradicted statements by the City of Soda Springs and others in comments AR026555 ("No one on behalf of the City of Soda Springs is aware of an alternative source of ore and the City does not believe that such an assumption is reasonable."); AR026441 ("In the event the Caldwell Canyon Mine is not allowed to be built, P4 will run out of phosphate ore in the next few years. Even though the BLM suggests that P4 may have an alternate source for phosphate ore, the [Caribou County] commissioners are not persuaded and believe the assumption is unfounded."); AR068306 (Idaho Mining Association comments crediting mine with keeping Soda Springs plant open); AR068481 (noting that without the mine fulfillment would "most likely be transferred to China"). Since "[t]here is nothing in the

record supporting [the agency's] assumption" of an alternative ore source, and record evidence contradicts that there is, BLM acted unreasonably in assuming the Caldwell Canyon mine will not prolong operations at the Soda Springs Plant. *Ctr. for Biological Diversity v. Dept. of Interior*, 623 F.3d at 647, 650.

BLM also makes the unfounded assumption that available alternative sources of ore would act as a perfect substitute for the ore production from Caldwell Canyon Mine. Because the agency provides no evidence of an alternative source, let alone a source that could provide the same amount of economically recoverable ore for 40 years, "[t]hat this perfect substitution assumption lacks support in the record is enough . . . to conclude that [an agency's analysis on the basis of] this assumption is arbitrary and capricious." *WildEarth Guardians v. BLM*, 870 F.3d 1222, 1235 (10th Cir. 2017); AR071253 (FEIS, 11).

Finally, even if an identical ore source were available elsewhere, BLM also failed to consider whether that ore would be extracted regardless of BLM's approval of the Caldwell Canyon Mine. If it would, the Caldwell Canyon ore will simply prolong—by providing additional quantities of ore—harmful operations at the Soda Springs Plant in ways that must be considered. *See S. Fork Band Council of W. Shoshone of Nev.*, 588 F.3d at 725–26 (faulting agency for ignoring the impacts of prolonging existing ore processing operations).

BLM's 2011 FEIS for P4's nearby Blackfoot Bridge Mine, which currently supplies phosphate ore to the Soda Springs Plant, is more consistent with NEPA and provides a useful comparison. The 2011 FEIS consistently disclosed that the Soda Springs Plant could close if the mine was not authorized. AR034177, AR034403. BLM also considered pollution emissions from the Soda Springs Plant to be indirect impacts of the Blackfoot Bridge Mine and states that emissions from this plant and other nearby phosphate plants "must be recognized as part of the

cumulative effects associated with phosphate mining." AR34535.[9] It went on to quantify the greenhouse gas and other pollution emissions expected from the Plant's processing of ore from the Blackfoot Bridge Mine. AR34399. Here, BLM takes the opposite position, asserting the effects from the Plant's continued operation are "not an indirect effect" and "the effects are not cumulative." AR071706. BLM's disparate approach to the same issue, with the same company, at the same plant, and in the face of diminished phosphate deposits, is highly arbitrary.

2. BLM's purported consideration of impacts from ore processing is inadequate.

To the extent BLM argues that it did adequately consider impacts from ore processing, the record shows otherwise. First, BLM failed to adequately consider impacts to air quality. In contrast to its quantitative evaluation of future Soda Springs Plant emissions in the Blackfoot Bridge FEIS, here BLM's only mention of plant emissions is a single sentence in its cumulative effects discussion stating, "[a]ll major sources of emissions (such as the Soda Springs phosphate processing plants) are regulated and emissions are limited by air permits." AR071324 (FEIS, 82). While the Soda Springs Processing Plant is indeed permitted, "a non-NEPA [state permitting] document . . . cannot satisfy a federal agency's obligations under NEPA." *S. Fork Band Council*, 588 F.3d at 726*; see also Sabal Trail*, 867 F.3d at 1375; *Great Basin Resource Watch v. BLM*, 844 F.3d 1095, 1103–04 (9th Cir. 2016). The mere fact that the Soda Spring Plant currently holds a permit says nothing about what the plant's emissions will be for the next 40 years if the Caldwell Canyon Mine is or is not authorized. These emissions must be quantified. *Liberty*, 982 F.3d at 740 (holding EIS deficient because it lacked a quantitative estimate of greenhouse gas emissions from ultimate use of the oil).

[9] BLM's references to cumulative impacts notwithstanding, impacts from processing ore from the mine must be analyzed as indirect impacts of the mine project itself, as discussed above, not solely cumulative effects.

Second, BLM refused to consider radiation risks associated with prolonged plant operation. BLM states that while radiation exposure could occur, this impact is outside the scope of the analysis. AR071707. It is arbitrary for BLM to consider the socioeconomic benefit of preserving jobs at the Soda Spring Plant while ignoring the risk of radiation exposure to those same workers and other community members. *See WildEarth Guardians v. Bernhardt*, CV 17-80-BLG-SPW, 2021 U.S. Dist. LEXIS 20792, *30 (D. Mont. Feb. 3, 2021) ("[W]hen an agency chooses to quantify the socioeconomic benefits of a proposed action, it would be arbitrary and capricious for the agency to undervalue the socioeconomic costs of that plan by failing to include a balanced quantification of those costs.").

Third, there is no discussion of impacts related to water, noise, and wildlife, which surely will occur. For example, the "plants [sic] effluent is discharged into Soda Creek." AR028429. The sediment downstream of this discharge has been "found to contain elevated levels of arsenic, cadmium, copper, nickel, selenium, silver, vanadium, and polonium-210," and surface water in a slow-flowing section near the plant exceeds Idaho water quality standards for selenium and cadmium. AR028441. The FEIS fails to discuss how processing millions of tons of ore from the Caldwell Canyon Mine through the Soda Spring Plant will impact Soda Creek, its aquatic inhabitants and terrestrial wildlife watering from it, or downstream sediments.

Fourth, the FEIS fails to evaluate how the additional throughput and associated waste from the Soda Springs Plant will impact the existing soil and groundwater contamination that landed the plant on the Superfund National Priorities cleanup list. AR028427 (soil and groundwater contaminated by elevated levels of "fluoride, cadmium, selenium, and sulfate."). Groundwater remediation is ongoing but is "not performing as intended" and is "slower than originally predicted, for selenium in particular," meaning that the contamination will not be remediated "in

the foreseeable future." AR028444. Critically, groundwater contamination from the site extends beyond the boundaries of the property on which the plant sits and thus further threatens local wildlife and citizens. *See* AR028446.

In sum, 40 additional years of ore processing have reasonably foreseeable indirect effects on numerous resources surrounding the Soda Springs Plant: "that is, [40] years of environmental impacts that would not be present in the no-action scenario." *S. Fork Band Council*, 588 F.3d at 725. An FEIS without this information cannot adequately inform either BLM or the public. *See Marsh*, 490 U.S. at 371 ("NEPA ensures that the agency will not act on incomplete information" and "permits the public and other government agencies to react to the effects of a proposed action at a meaningful time."). Furthermore, by crediting the mine with preserving jobs without fully disclosing the environmental impacts, BLM provides a skewed and therefore, arbitrary and capricious analysis of the impacts from the plant. *See WildEarth Guardians v. Bernhardt*, 2021 U.S. Dist. LEXIS 20792, *30. BLM's failure to take a hard look at the indirect effects of ore processing at the Plant is arbitrary and capricious, an abuse of discretion, and not in accordance with NEPA and its regulations, in violation of the APA. 5 U.S.C. § 706(2)(A).

B. BLM failed to take a hard look at impacts to greater sage-grouse.

BLM further violated NEPA by failing to take a hard look at the Caldwell Canyon Mine's direct, indirect, and cumulative impacts on greater sage-grouse. As a result of these errors, the Caldwell Canyon Mine may have significant adverse impacts on a precarious species that were not adequately addressed or disclosed by the BLM, in violation of NEPA.

1. <u>BLM overlooked important effects of the mine on greater sage-grouse habitat and populations.</u>

BLM violated its hard look mandate by overlooking three key impacts to greater sage-grouse, thus presenting a misleading and incomplete picture of the mine's effects on this species.

First, the analysis of habitat impacts was fundamentally flawed because it ignored *functional* habitat loss. The FEIS claims the project would result in the "loss or modification" of just 113 acres of General Habitat Management Area (GHMA)[10] and 868 acres of state-designated "key habitat." AR071362. However, these misleading figures only reflect direct disturbance, AR071497, ignoring the indirect habitat loss that will extend beyond the project footprint. The record demonstrates that sage-grouse avoid intact habitat near powerlines, roads, structures, and human noise, and that anthropogenic disturbance can fragment sagebrush habitat into disjointed patches that are unusable to the species. *See generally* AR065104 (describing functional habitat loss); AR036636 (requiring BLM to account for "indirect" habitat impacts, such as avoidance, that "extend beyond the footprint of disturbance"); AR027580, AR027584, AR027626 (noise avoidance); AR003013, AR003018 (powerline avoidance); AR031625, AR071482, AR07188 (noting importance of continuous habitat patches); AR038231 (estimating that the area of influence of roads, railroads, and powerlines extends roughly 0.6 mile "beyond the actual line feature"); AR003013 (fragmentation is "a primary cause of the decline of sage-grouse because the species requires large expanses of contiguous sagebrush). Although commenters urged BLM to consider habitat impacts beyond physical disturbance, *e.g.*, AR068391, AR028866–67, AR028871–72, BLM did not acknowledge or discuss the extent of possible functional habitat loss for greater sage-grouse.

This omission was significant. Functional habitat loss can be orders of magnitude larger than a project's physical footprint. As just one example, research suggests that the area of influence of roads and powerlines extends roughly 0.6 mile "beyond the actual line feature." AR038231.

[10] This figure does not include habitat within the mine pit, as federal sage-grouse plans exclude Known Phosphate Leasing Areas (KPLA) from habitat designations. AR071353.

This suggests the functional habitat loss for the 40-foot-wide Slug Creek Powerline ROW would be over *70 times* greater than its direct disturbance. By arbitrarily limiting its habitat analysis to the project footprint, BLM failed to consider this important aspect of the mine's impact on greater sage-grouse.

Second, BLM failed to consider whether the project would put the area's small and vulnerable East Idaho Uplands sage-grouse population at greater risk of extirpation. This population is already considered "isolated" and "high risk" with a "low probability of persistence," AR065117; AR016508; AR065171–72, and leks within the project area have exhibited declining counts since the 1970s. AR071354. Additionally, the record demonstrates that habitat loss and fragmentation contribute to a population's isolation and risk of extirpation. AR065104. Yet, after explaining that the Caldwell Canyon project will eliminate a large swath its habitat and reduce attendance at one of its few remaining leks, AR071362, BLM failed to evaluate the resulting viability of the East Idaho Uplands sage-grouse population. The FEIS offered only that "[o]verall effects" to sage-grouse "would be expected to be long-term and moderate." *Id.* These types of "general statements . . . do not constitute a 'hard look'[.]" *Blue Mtns. Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1213 (9th Cir. 1998); *see also Klamath-Siskiyou Wildlands Center v. BLM*, 387 F. 3d 989, 994 (2004) (faulting agency for relying on similarly vague assertions of "minor" or "major" impacts).

This omission, too, was significant. The importance of peripheral populations such as the East Idaho population is widely recognized in sage-grouse literature, due to their contributions to genetic variability, habitat connectivity, and resilience to stochastic events. AR065107–08. As the 2013 Greater Sage-Grouse Conservation Objectives Team Report ("COT Report") explained, "conserving well distributed sage-grouse populations across geographic and ecological gradients"

ensures the preservation of their "adaptive traits" and "make sage-grouse more resilient in the face of catastrophes or environmental change." AR065107. Thus, although a serious environmental concern in its own right, extirpation of the East Idaho Uplands population may impair recovery prospects for the species range wide.

Finally, BLM also entirely failed to consider how the mine would impair connectivity between sage-grouse populations. Genetic interactions and movements between breeding populations are critical to species viability. AR036914 (noting that population connectivity is "critical" to the species viability); AR062255 ("Pathways for movement within and between populations are critical for maintaining population viability"); AR047826, AR065129 (both recommending the maintenance of genetic and population connectivity). Commenters requested that BLM consider whether the mine would impair connectivity between the East Idaho Uplands leks and other populations, such as the Bear Lake Plateau population to the south or Wyoming populations to the east, AR068390–92; AR065125 (illustrative map of populations), yet BLM ignored the issue.

The failure to consider these important aspects of the mine's impacts on sage-grouse violated NEPA. *Bark v. U.S. Forest Serv.*, 958 F.3d 865, 871 (9th Cir. 2020) ("NEPA requires agencies to consider all important aspects of a problem."); *cf. W. Watersheds Project v. Bernhardt*, 519 F. Supp. 3d 763, 797–800 (D. Idaho 2021) (failure to account for sage-grouse functional habitat loss and loss of population connectivity rendered decision arbitrary and capricious).

2. BLM failed to take a hard look at cumulative impacts to sage-grouse.

BLM also failed to meaningfully consider the cumulative impacts of the mine on greater sage-grouse. A cumulative effects analysis "must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about these projects, and differences

between the projects, [that] are thought to have impacted the environment." *Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2005); *see also Great Basin Res. Watch v. BLM*, 844 F.3d at 1104 (requiring "some quantified or detailed information" rather than "simply listing all relevant actions"). The purpose of such a hard look review is to "permit informed public comment on proposed action and any choices or alternatives that might be pursued with less environmental harm." *Lands Council*, 395 F.3d at 1027.

BLM violated these standards here. The FEIS's cumulative impacts discussion begins by simply listing past, present, or reasonably foreseeable projects and their size. AR071286–89. The acreage of projects "is a necessary component of a cumulative effects analysis, but it is not a sufficient description of the[ir] actual environmental effects." *Klamath-Siskiyou*, 387 F.3d at 995. BLM then claimed "past actions from recent mining are addressed individually in the cumulative impacts sections for each resource." AR071285. However, these resource-specific discussions are "vague and lacking in any detailed discussion" and fail to discuss the environmental impacts of any of the previously-named projects on an "individual basis" so as to "inform[] [the] analysis about alternatives presented for the current project." *Lands Council*, 395 F.3d at 1027.

Importantly, the FEIS contains no cumulative effects discussion for sage-grouse. Rather, BLM grouped all wildlife species into a single discussion made up of unhelpful generalities, like the "Caldwell Canyon Project would add to the cumulative negative effects on wildlife." AR071365. The FEIS describes in broad terms how development generally impairs wildlife, but lacks the requisite description of impacts from any past or future projects "on an "individual basis." *Lands Council*, 395 F.3d at 1027. Indeed, BLM went so far as to claim that "analysis of the effects of past mining, roads, grazing [on greater sage-grouse] is outside the scope of the Caldwell Canyon EIS." AR071693. The only quantitative or detailed information is a rough calculation of the total

acreage of existing "disturbance" in the analysis area, which again the Ninth Circuit has held insufficient. *Klamath-Siskiyou*, 387 F.3d at 995. The tabulation also ignores foreseeable habitat losses from future projects, such as the Rasmussen, Dairy Syncline, and East Smoky Panel mines.

The absence of a true cumulative effects analysis is particularly concerning as to the greater sage-grouse, as the species is sensitive to the cumulative density of human development. Literature suggests that sage-grouse eventually abandon areas once habitat disturbance reaches a certain threshold, even if patches of suitable habitat remain. *See, e.g.*, AR03608 (noting that the "cumulative effects" of activities at the landscape scale can "greatly influence regional extirpation of sage-grouse"); AR036080 (imposing 3 percent cap on human disturbance in sage-grouse habitat for this reason). BLM also overlooked other important landscape-scale issues, such as how other past and future projects may cumulatively impair the East Idaho Uplands birds, fragment their remaining habitat, and impair their connectivity to other sage-grouse populations. In sum, instead of a useful cumulative effects analysis for greater sage-grouse, BLM offered the kind of "general statements" that are insufficient to meet NEPA. *See Bark*, 958 F.3d at 872–73.

C. BLM failed to take a hard look at impacts to water resources.

1. BLM failed to take a hard look at effects of selenium-contaminated dust.

A direct effect of strip-mining Caldwell Canyon is the generation of fugitive dust containing significant levels of selenium. Yet, BLM failed to take a hard look at selenium pollution from Caldwell Canyon Mine because it did not adequately disclose how it analyzed selenium contaminated fugitive dust, or how those emissions will impact the Blackfoot River or its tributaries. NEPA requires that an EIS contain "high quality information and accurate scientific analysis." *Lands Council*, 395 F.3d at 1031 (citing 40 C.F.R. § 1500.1(b)). The EIS must describe the methodologies used, including any shortcomings—such as incomplete or unavailable data—

that are relevant to the environmental impacts. *Lands Council v. Vaught*, 198 F. Supp. 2d 1211, 1238 (E.D. Wash. 2002).

In its comments to BLM, EPA expressed "concern[] that the mine could generate fugitive dust that would impact surface water," particularly the Blackfoot River that runs at the foot of the mine and already exceeds state water quality standards for selenium. AR027242. EPA further questioned the basis for BLM's conclusion that fugitive dust was "very unlikely" to impact selenium concentrations in the Blackfoot River because BLM did not disclose the basis for its conclusion, such as the model it used. *Id.* EPA also recommended that BLM analyze fugitive dust emissions on a seasonal rather than an annual basis. AR027243. EPA cautioned that fugitive dust emissions may be "significantly lower" during the winter and spring due to snow and precipitation, whereas additions to the Blackfoot River during the summer may be highest given the combination of potentially higher fugitive dust emissions and lower flows in the Blackfoot River. *Id*. In comments on the FEIS, EPA "continue[d] to be concerned about the potential for selenium in fugitive dust to impact surface waters" and reiterated that "fugitive dust be modeled on a finer scale to more accurately calculate dust seasonally rather than annually." AR004057 (ROD, A-2).

In response, BLM stated, without support, that "it is very unlikely that the dust would increase the selenium concentration in the river water to the acute or chronic aquatic life standards (0.02 and 0.005 mg/L, respectively)." AR071213.[11] But, as even BLM acknowledged elsewhere in its review, the Blackfoot River is impaired pursuant to Clean Water Act Section 303(d), 33 U.S.C. § 1313(d), which means that selenium concentrations in the river already exceed state standards. AR071300 (FEIS, 58). Dry Valley Creek, which runs between the Caldwell Canyon

[11] In mid-2019, Idaho's revised criteria for selenium, including a chronic standard of 0.0031 mg/L (3.1 µg/L) for lotic (moving fresh water), took effect. Idaho Admin, Code r. 58.01.02.210.01.

Mine pits and the ore processing and loading area, AR003251, is likewise impaired by selenium concentrations far above state standards, AR071300 (FEIS, 58); AR053878-79. Thus, even small increases in selenium levels could result in significant impacts to the Blackfoot River and its tributaries; BLM's failure to consider how the project will compound existing pollution does not rise to the level of "hard look" that NEPA requires.[12]

In addition, BLM took a "trust us" approach on its modeling, neither disclosing nor summarizing the model it used to estimate fugitive dust impacts. *See* AR071312 (FEIS, 70) (stating the results of the model but failing to describe how the modeling was conducted or its limitations); *see also* AR071682 (FEIS, E-18) (stating that BLM used a "Gaussian Plume Model" (which it did not disclose) that accounted for wind speed but does not account for seasonal variations). BLM's modeling predicted daily dust emissions would result in selenium concentration two orders of magnitude below the former chronic standard and three orders of magnitude below the former acute standard. AR004057 (ROD, A-2). BLM acknowledged that more stringent standards were forthcoming, AR071680, but did not mention what the new standards would be nor compare them to the existing contamination and additional impacts from the project. Given that selenium in the Blackfoot River and Dry Valley Creek already exceeds Idaho's standard, BLM's conclusion that project dust is unlikely to increase concentrations to that standard cannot possibly be correct. The public is left to guess how far already elevated selenium levels will increase because of the project.

[12] While BLM did not disclose baseline selenium concentrations in the sections of the river and creeks impacted by fugitive dust emissions from the Caldwell Canyon Mine, a United States Geologic Survey (USGS) study cited in the FEIS found that 31 percent of samples from a section of the Blackfoot River exceeded the chronic aquatic life criterion and that selenium concentrations trended upwards during the low-flow season of August to October, and most samples from Dry Valley Creek exceeded that same criterion. AR053882, -78–79. This study supports EPA's concern both about the potential for impacts and the usefulness of a seasonality analysis. USGS also found that selenium concentrations in the river near its confluence with Dry Valley Creek are increasing. AR053883.

Close examination of the fugitive dust modeling documentation shows it too fails to take a "hard look," and instead underestimates the project's impacts on surface water quality. For example, BLM divides the estimated annual dust volume by an *admittedly* "overestimated" flow volume for the Blackfoot River to arrive at an artificially low concentration of selenium in the water. AR020542 (admitting the result has a "low bias")*; see Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964-65 (9th Cir. 2005) (holding that EIS violated NEPA where inaccurate averaging skewed the data). BLM's calculations also ignore the tipple and processing area on the bank of Dry Valley Creek, AR003251, which will emit dust with significantly higher selenium concentrations than other aspects of the project. AR020536–37. BLM's fugitive dust calculation obscures this impact by (1) averaging all sources of fugitive dust to arrive at a selenium concentration one-third of that in the dust generated at the processing area, AR020537; and (2) dividing that average selenium concentration by the inflated flow volume of the Blackfoot River, which is roughly 50 to 780 (or more) times the flow in Dry Valley Creek, AR020542, -44; AR071296. BLM's fugitive dust calculations are inaccurate on their face and ignore the impacts of high selenium content dust on Dry Valley Creek, which, like the Blackfoot River, already exceeds selenium water quality criteria. AR020544.

BLM's failure to disclose and account for already elevated selenium levels in the Blackfoot River and its tributaries, and to disclose or adequately summarize its fugitive dust model render its analysis of selenium contaminated fugitive dust arbitrary and capricious, an abuse of discretion, and not in accordance with NEPA, in violation of the APA. 5 U.S.C. § 706(2)(A).

2. BLM failed to take a hard look at cumulative effects to water resources.

As with sage-grouse, BLM's cumulative effects analysis for impacts to water resources is cursory and devoid of the "detailed catalogue of past, present, and future projects," and "analysis

about these projects, and differences between the projects," that NEPA requires. *Lands Council v. Powell*, 395 F.3d at 1028. The entire cumulative effects section for water consists of three vague paragraphs that point to a map of the "study area" (Figure 9) and note that "past phosphate mining projects have allowed . . . selenium to enter groundwater and surface water at elevated concentrations," including at or above surface and groundwater standards. AR071321. These are the kinds of "general statements" that are insufficient under NEPA. *See Klamath-Siskiyou*, 387 F.3d at 993, 995; *Bark*, 958 F.3d at 872–73. Additionally, this section contains "no discussion of the environmental impact from past projects on an individual basis," including their contribution to selenium contamination, so as to "inform[] the analysis about alternatives presented for the current project." *Lands Council v. Powell*, 395 F.3d at 1027.

While BLM implies that past projects are irrelevant because "[r]ecent analysis methods and regulatory requirements have resulted in the design of the active projects showing little potential for future impacts to beneficial uses" of water, BLM fails to explain why. AR071321. Indeed, this conclusion is difficult to square with BLM's 2011 FEIS for P4's nearby Blackfoot Bridge Mine, which anticipated discharges of groundwater containing selenium in excess of the water quality criterion to the Blackfoot River for the next 350 years or more. AR002095. BLM expected the cumulative impacts of selenium pollution from that mine, along with past, present, and foreseeable developments, to be moderate to major, and long-term. AR002587. These impacts are anticipated despite BLM requiring P4's Blackfoot Bridge Mine to implement a cover system with a partial geosynthetic cap, AR002086, -89, similar to that of P4's Caldwell Canyon Mine, AR071266. According to BLM, the different types of partial geosynthetic caps perform very similar to one another and to basic cover systems without geosynthetic layers. *Id.*; *see also* AR071217 (describing basic cover originally proposed by P4). In addition, significant evidence of

worsening selenium contamination in the Blackfoot River has emerged since the 2011 Blackfoot Bridge FEIS. AR053878, -82 (2015 USGS study describing increasing concentrations in the Blackfoot River, and Dry Valley Creek concentrations more than 14 times those measured previously).

BLM also does not provide any information to help the public assess whether one type or another of mining or mitigation would result in less environmental harm. Instead, BLM once again takes a "trust us" approach that violates NEPA's hard look requirements. *See Lands Council v. Powell*, 395 F.3d at 1027, 1034. The omitted information is important because phosphate mining has caused significant contamination in southeast Idaho. Just in the vicinity of the Caldwell Canyon Mine, the Blackfoot River and two of the creeks (Dry Valley Creek and Chicken Creek) contain selenium above state standards. AR071300–01 (FEIS, 58–59). In mining-influenced streams in the Blackfoot River watershed, selenium is "elevated throughout aquatic food webs," often at concentrations "above those considered potentially harmful." AR053860. This contamination causes a range of impacts on the ecosystem, from livestock deaths and poisoning in wildlife to a host of problems in fish that have been labeled an "insidious threat…because adult fish may appear perfectly health, whereas severe effects may be occurring in early life stage fish." AR053859–61. As of 2004, there were 15 large-scale phosphate mines in Blackfoot River watershed in need of Superfund removal actions, AR048417, several of which continued to operate for a decade or more, AR071286. Several of these contaminated sites have been or will soon be subject to additional mining, and at least two new large-scale mines commenced activity since 2013. AR071286. Information about the practices of these current and former mines over the last decade is crucial for understanding whether the current proposal and any alternatives will effectively mitigate environmental harm.

This information is also necessary to understand contributions of selenium contamination to the Blackfoot River and whether the Caldwell Canyon Mine will further degrade the health of this river, resulting in a significant environmental impact. *Klamath-Siskiyou*, 387 F.3d at 994; *Great Basin Res. Watch*, 844 F.3d at 1106 (cumulative impacts analysis must "consider the interaction of multiple activities"). As of 2012, selenium concentrations in the Blackfoot River frequently exceeded water quality standards and were trending upward. AR053882. The FEIS lacks any discussion of the cumulative effect of the several additional phosphate mines that have been active since 2012, plus the current project, on this troubling water quality trend over the last decade. Even if Caldwell Canyon's impact is small, "the addition of a small amount here, a small amount there, and still more at another point could add up to something with a much greater impact, until there comes a point where even a marginal increase will mean that no [fish] survive." *Klamath-Siskiyou*, 387 F.3d at 994.

Overall, BLM's cumulative impacts analysis fell well below NEPA standards. BLM neither described the environmental impact from past projects "on an individual basis," *Lands Council v. Powell*, 395 F.3d at 1027, nor offered "quantified or detailed information" on how they will cumulatively impact water resources when combined with the Caldwell Canyon Mine, *Klamath-Siskiyou*, 387 F.3d at 993. Accordingly, BLM's FEIS fails the hard look test and is arbitrary, capricious, and contrary to NEPA, in violation of the APA. 5 U.S.C. § 706(2)(A).

D. BLM violated NEPA by failing to consider the required range of alternatives.

BLM further violated NEPA by failing to consider a range of reasonable alternatives for the mine. NEPA requires federal agencies to "[r]igorously explore . . . all reasonable alternatives" to their proposed actions. 40 C.F.R. § 1502.14(a), (d). This alternatives discussion is the "heart of the [EIS]." 40 C.F.R. § 1502.14. The alternatives analysis furthers NEPA's goal of "thorough

consideration of environmental value . . . by guaranteeing that agency decisionmakers have before them and take into proper account all possible approaches to a particular project." *Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995) (quoting *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988).

"The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008) (quoting *Alaska Wilderness*, 57 F.3d at 729). Thus, an agency violates NEPA where it declines to consider a proposed alternative without showing that it is "infeasible, ineffective, or inconsistent with the basic policy objectives for the management of the area" or would "have substantially similar consequences" to alternatives already considered. *See Headwaters, Inc. v. BLM, Medford Dist.*, 914 F.2d 1174, 1180–81 (9th Cir. 1990).

BLM violated these standards in two ways. First, the FEIS evaluated virtually identical action alternatives that were not "varied enough to allow for a real, informed choice." *Friends of Yosemite Valley*, 520 F.3d at 1038–39. Aside from the required "no action" alternative, BLM considered only two alternatives: P4's proposal and another alternative that only varied from P4's proposal by requiring installation of a geosynthetic membrane in select locations to reduce groundwater contamination. AR071261 (FEIS, 19). BLM itself described the proposed action and the single alternative action as having similar effects on groundwater and recognized that the alternatives were otherwise identical. *See* AR071266 (FEIS, 24);[13] *see also* AR071222–33 (FEIS, S-4–S-15). BLM's alternatives analysis, therefore, did not inform decisionmakers or the public of

[13] BLM declined to consider another cover design in detail, stating it would be substantially similar to the proposed alternative and Alternative 1. *Id.* As EPA noted, BLM also declined to consider an alternative cover design that was more protective of groundwater, without any explanation. AR027242.

other available mitigation measures to avoid, for example, impacts to surface water quality or greater sage-grouse, as required under NEPA. *Friends of Yosemite Valley*, 520 F.3d at 1038–39; *see also Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813 (9th Cir. 1999).

Second, BLM also improperly ignored or rejected other reasonable alternatives proposed in public comments. *See Southeast Alaska Conserv. v. Federal Highway*, 649 F.3d 1050, 1059 (9th Cir. 2011) (an agency violates NEPA by "failing to examine a viable and reasonable alternative to the proposed project . . . [or] providing an adequate justification for its omission"). For example, commenters recommended that BLM allow expansion of the mine pit by issuing a "fringe acreage lease," rather than the proposed "lease modification." AR028504 (recommending that BLM evaluate a fringe lease); *see also* 43 C.F.R. § 3501.10(e), (f) (discussing both terms). Whereas a "lease modification," is subject to the same terms and conditions as the original lease, a "fringe acreage lease" can be issued with more stringent stipulations, such as to protect sage-grouse. *Id.* § 3510.21. Yet, BLM failed to address the viable alternative of issuing a fringe lease at all. *See* AR071261–81, AR071668–76 (FEIS, 19-39, E-4-E-12). The failure to consider this viable "fringe acreage lease" alternative or provide an explanation for its rejection renders the FEIS inadequate. *See Friends of Yosemite Valley*, 520 F.3d at 1038 ("The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." (quoting *Alaska Wilderness*, 57 F.3d at 729)); 40 C.F.R. § 1502.14(a).

BLM also unreasonably rejected the proposed alternative of maintaining the existing lease boundaries, to better preserve surface resources such as greater sage-grouse. BLM reasoned that this alternative would require a redesign of the pit walls, but never claimed or explained that such a redesign was infeasible. *See* AR071269 (FEIS, 27). BLM next arbitrarily claimed that sage-grouse would experience only "negligible" impacts from modified lease boundaries because Idaho

contains other sage-grouse habitat, AR004041, ignoring that the lease modification would allow pit construction and blasting noise closer to one of the few remaining leks for an imperiled sage-grouse population.

BLM also asserted that keeping the current lease boundaries would prevent 11.2 million tons of ore from being mined, preventing "ultimate maximum recovery" of the ore in accordance with 43 C.F.R. § 3590. AR071269 (FEIS, 27). BLM failed to acknowledge or discuss that ultimate, maximum recovery must be "consistent with the protection . . . of other natural resources and the protection and preservation of the environment," 43 C.F.R. § 3594.1, and "does not in any way restrict the authorized officer's authority to ensure the conservative [sic] of the mineral resource and protection of other resources," *id.* § 3590.0-5(h). BLM also failed to acknowledge that its regulations governing phosphate extraction aim "to promote operating practices which will avoid, minimize or correct damage to the environment—land, water, and air," *id.* § 3590.0-1, and that FLPMA requires public lands and minerals to be managed in a way that harmonizes environmental protection and development. *See* 43 U.S.C. §§ 1701(a)(7), 1702(c) (requiring "multiple use" management, defined as "harmonious and coordinated management of the various resources without permanent impairment" of environmental quality); *id.* § 1701(a)(8) (requiring BLM to manage public lands to protect "environmental" values). Thus, BLM's desire for "ultimate maximum recovery" did not provide a reasonable ground for rejecting this alternative either.

BLM's failure to consider a reasonable range of alternatives for the Caldwell Canyon Mine was therefore arbitrary, capricious, an abuse of discretion, and not in accordance with NEPA and its regulations, in violation of the APA. 5 U.S.C. § 706(2)(A).

III. BLM VIOLATED FLPMA BY DISREGARDING GREATER SAGE-GROUSE PROTECTIONS.

The Caldwell Canyon Mine also violates various RMP requirements for the protection of greater sage-grouse. FLPMA requires that BLM develop RMPs and manage the public lands "in accordance with" them. 43 U.S.C. § 1732(a); *see also* 43 C.F.R. § 1610.5-3(a) (BLM "authorizations and actions . . . shall conform to the approved plan"). Here, BLM failed to ensure that the Caldwell Canyon Mine conforms to the governing Pocatello RMP, as amended in 2015 and 2019 as part of nationwide sage-grouse planning efforts. In particular, BLM authorized powerline and road construction impermissibly close to the Dry Valley lek and without compensatory mitigation sufficient to ensure a "net conservation gain" to sage-grouse. Accordingly, the Caldwell Canyon ROD and subsequent authorizations must be set aside as arbitrary, capricious, and contrary to FLPMA. *See* 43 U.S.C. § 1732(a).

A. Applicable RMP provisions.

The Caldwell Canyon project is subject to a complex matrix of sage-grouse protections, set forth in the 2012 Pocatello RMP (AR34939–5338), 2015 Idaho and Southwestern Montana Greater Sage-Grouse Approved Resource Management Plan Amendment ("2015 ARMPA") (AR036152–557), and 2019 Idaho Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment ("2019 ARMPA") (AR036575–645).

The applicability of these provisions to the Caldwell Canyon Mine depends primarily on land ownership and habitat classification. Plaintiffs' demonstrative map illustrates these boundaries. *See* ECF No. 56.[14] The Pocatello RMP applies to all BLM-administered lands in the

[14] The map constitutes a demonstrative exhibit, as it compiles data already in the administrative record. *See* Clauser Decl. Alternatively, it may be admitted as extra-record evidence, to help explain complex subject matter, by distilling disjointed maps elsewhere in the record, and to

project area, including non-federal surface with federal mineral rights ("split estate"). *See* AR03540; AR035013. The ARMPAs apply only to the subset of these lands designated as GHMA. AR036165; AR036162; AR004242l. "In the event there are inconsistencies" between the ARMPAs and the Pocatello RMP, the "more restrictive" provision applies. AR036178; *see also* AR036176 ("[w]here more restrictive land use allocations or decisions are made in existing RMPs, they will remain in effect and will not be amended").

BLM adopted the 2019 ARMPA in March 2019, but it was preliminarily enjoined soon thereafter by this Court, on October 16, 2019. *See W. Watersheds Project v. Schneider*, 417 F. Supp. 3d 1319 (D. Idaho 2019). Thus, while the Caldwell Canyon ROD was subject to the 2019 ARMPA, the ROW authorizations were signed beginning on November 13, 2019 and thus subject to the 2015 ARMPA.

The Pocatello RMP provides that "[n]ew infrastructure facilities/structures (e.g., major power transmission lines, power distribution lines, communications towers, and temporary meteorological towers) requiring permanent surface occupancy will be sited in a manner that avoids sage-grouse habitat to the extent possible and will be placed at least 2.0 miles from occupied leks or other important sage-grouse seasonal habitats as identified locally." AR034972. The Pocatello RMP defines an "occupied lek" as one where at least two male sage-grouse have attended in at least two of the previous five years and an "active lek" as one that has been attended by one or more males during the prior breeding season. AR035081.

The 2015 ARMPA prohibits "linear features (roads)" and "surface disturbance (continuing human activities that alter or remove the natural vegetation)" within 3.1 miles of leks. AR036260.

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determine whether BLM considered all relevant factors, such as the proximity of the Dry Valley lek to the mine. *See Lands Council*, 395 F.3d at 1030.

It also prohibits "tall structures (e.g., communication or transmission towers, transmission lines) within 2 miles of leks." AR036260. BLM may approve a project within these lek buffers only if (a) it is "not possible" to relocate the project elsewhere and (b) BLM determines that another lek buffer distance "offers the same or a greater level of protection to GRSG" or that impacts to GRSG and its habitat are "minimized such that the project will cause minor or no new disturbance." AR036261; *see also* AR036192. Use of these exemption criteria must be analyzed and disclosed. AR036260. The 2015 ARMPA also requires third parties to provide compensatory mitigation sufficient to ensure a "net conservation gain" to the species. AR036376.

The 2019 ARMPA weakened these requirements of the 2015 ARMPA. However, relevant here, it still prohibits "[s]urface disturbance (continuing human activities that alter or remove the natural vegetation) within 2 miles of leks." AR036616. RDFs "should be considered and applied" in GHMA "unless the proponent can show that [they are] technically or economically impracticable." AR036621. These RDFs include powerline burial. AR036627 ("Where technically and financially feasible, bury distribution power lines").

B. BLM unlawfully approved the Slug Creek Powerline to be constructed above ground and within 2 miles of the Dry Creek Lek.

The Slug Creek powerline violates the Pocatello RMP and 2019 ARMPA. First, BLM unlawfully approved the Slug Creek powerline to be sited within 2 miles from the Dry Creek lek. One segment of the powerline falls on BLM-administered split estate within GHMA, within 2.0 miles of the Dry Valley lek. *See* ECF No. 56. This violates the prohibition on surface disturbance within 2 miles of leks. AR036616. This same GHMA segment and the northernmost segment on BLM-administered split estate also violate the 2012 Pocatello RMP prohibition on power distribution lines within 2 miles of "occupied leks or other important sage-grouse seasonal habitats." AR034972. The Dry Valley lek meets the definition of an "occupied lek" as four males

attended that lek in 2016 and 2017. AR074236; *see also* AR074604 (determination of BLM biologist "last three years observing males at the site puts the lek squarely in the active and occupied category"); AR074225 (similar).

BLM also unlawfully exempted P4 from the powerline burial requirement. Overhead powerlines harm greater sage-grouse through collisions, increased avian predation, and habitat avoidance and fragmentation. AR003013. Accordingly, the 2019 ARMPA contains an RDF requiring new powerlines in sage-grouse GHMA to be buried unless technically or economically infeasible. AR036627 ("Where technically and financially feasible, bury distribution power lines"); AR036621 (noting that RDFs "should be considered and applied in GHMA, unless the proponent can show [they are] technically or economically impracticable"). In the FEIS, BLM explained that burial of the Slug Creek power line "was not considered in detail because the expense is prohibitive, underground placement poses risks for inadvertent contact through digging, difficulty in maintain the power line, and the fact that risks to wildlife from overhead power lines are mitigated." AR003094; *see also* AR074242 (similar explanation). The final three grounds are inappropriate because they do not establish that powerline burial was infeasible, and all four grounds lack support in the record. BLM requested that P4 "provide more justification to BLM so they can document consideration of alternative but not using it [sic]" given the "higher cost." AR000854. No such justification materialized. In fact, the record contains no evidence whatsoever of the cost of powerline burial or articulation of why such cost is "infeasible" for this development. BLM's conclusory assertion of economic infeasibility fails to pass muster under arbitrary and capricious review. *See Motor Vehicle Mfrs. Ass'n.*, 463 U.S. at 43 (an agency must "examine the relevant data and articulate a satisfactory explanation for its action").

C. BLM unlawfully approved the East Caldwell haul road, water pipeline, fiber optic line, and powerline ROWs within 2 miles of the Dry Creek lek.

The ROW approvals for the East Caldwell Haul Road, Water Pipeline, and Fiber Optic Line similarly violate the 2015 ARMPA. The ROW authorizations were signed beginning on November 13, 2019 and thus subject to the 2015 ARMPA. A large segment of this ROW corridor is located in GHMA within 3.1 miles of the Dry Valley lek, *see* ECF No. 56, violating the prohibition on "linear features" and "surface disturbance" within 3.1 miles of leks. AR036260. When approving the ROW, BLM also disregarded its obligation to evaluate whether road segments falling outside designated GHMA should be similarly protected, due to their proximity to the Dry Valley lek. *See* AR036186 ("[a]reas of habitat outside of delineated habitat management areas . . . will be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix C) and buffers (Appendix B) will be included as part of project design[.]"). The "voluntary" compensatory mitigation P4 offered for this habitat loss was also insufficient meet the requirements of the 2015 ARMPA, as described below.

D. BLM failed to ensure compensatory mitigation that provides a net conservation gain to greater sage-grouse.

BLM's authorizations were further unlawful in that BLM did not require compensatory mitigation sufficient to achieve a "net conservation gain" to greater sage-grouse. In particular, BLM's ROW approvals were subject to the 2015 ARMPA, which contains a stringent compensatory mitigation requirement:

> [I]n authorizing third party actions that result in habitat loss and degradation, the BLM/USFS will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. . . . Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.

AR036376. "Timeliness" is defined as the "lack of a time lag between impacts and the achievement of compensatory mitigation goals and objective." AR036380. "Durability" is defined as the

maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts." *Id.*

P4 volunteered a "mitigation plan" for the Caldwell Canyon project consisting of (1) reclamation of the mine pits; (2) a research project on Bayer's nearby Fox Hills Ranch private property; and (3) an "in-lieu fee" contribution of $62,273 to the State of Idaho's sage-grouse mitigation fund. AR003403–20. However, this plan does not meet the compensatory mitigation requirements of the 2015 ARMPA.

To begin, the reclamation and research elements of the plan cannot be counted because they do not meet the timeliness or durability criteria, as P4 appeared to concede. AR003418 (noting that these elements "[do] not meet the timeliness criteria" because there will be a time lag between the impacts and replacement habitat, and do not meet the durability requirement because there is no assurance that these lands will be maintained as habitat). The additionality requirement is not satisfied either because the reclamation and research would have occurred regardless of the mine approval. Reclamation of the mine pit is already legally required, and the research was underway before the mine was approved. *See* 43 C.F.R. § 3591.1 ("[t]he surface of lease . . . lands *shall be reclaimed*"); AR003417 (noting that Fox Hills research was already initiated as of 2018).

The in-lieu fee contribution was also far too small. The $62,273 figure represents Bayer's estimated cost ($1,500/acre) for offsite reclamation of just 36.1 acres, which is the acres of BLM-administered GHMA within the project footprint, roughly halved to account for the supposedly "marginal" nature of this habitat. AR003290; AR003413. This 36.1-acre figure does not provide compensation for "indirect" habitat impacts, as required by the ARMPA. AR036384 (requiring compensatory mitigation for both "direct and indirect" impacts to sage-grouse); AR036382 (compensatory mitigation must offset "habitat losses and other effects"). As previously discussed,

indirect habitat impacts far exceed the direct disturbance footprint of roads and powerlines. *See supra* § II.B.1 (discussing "functional habitat loss"). BLM also failed to adjust this figure upward to account for the time lag and uncertain effectiveness of habitat restoration projects, as required by 2015 ARMPA. Under the in-lieu fee model, P4's funds were not earmarked for any completed mitigation but would be used to fund future projects, meaning there would be a temporal loss of habitat. AR003416; AR065132 ("adequate restoration is often very difficult and takes many years"); AR065219 (restoring functioning habitat can take "decades or centuries"). For both reasons, the in-lieu fee contribution fails to ensure a "net conservation gain" to sage-grouse.

E. BLM erroneously disclaimed its obligation to mitigate impacts to habitat surrounding the "Dry Valley" lek.

The record confirms that BLM was aware of these RMP requirements, AR20561–617, AR00241–48, and was warned by its own wildlife biologist that the "current draft EIS is not in conformance with the Sage Grouse plan." AR07422 ("This has been a continued frustration for the biologist and he has come to me several times requesting direction."). Yet BLM refused to apply the RMP protections based in part on its erroneous claim that the Dry Valley lek falls "outside [its] authority" because of its location on private land. AR003056. This contradicts both the plain language of the Pocatello RMP and longstanding precedent on the scope of BLM authority over federal lands.

The Pocatello RMP and ARMPAs prohibit activity on BLM-administered surface or split estate within certain distances of "leks." AR036260; AR036616, AR034972. They do not limit this restriction to leks *on federal lands*. The absence of such a limitation is not surprising, given that buffers protect both the lek site and surrounding nesting habitat. AR036342 (noting that "most nesting habitat occurs within 6.2 miles (10 km) of the lek."); AR048072 (noting that buffers protect

"nesting and early brood rearing activity"). Thus, application of the lek buffers to the Dry Valley lek ensures that any nesting habitat on federal lands is conserved.

BLM has clear authority to condition its land use authorizations in this fashion to avoid impacts to wildlife habitat on federal lands. *See Kleppe v. New Mexico*, 426 U.S. 529, 540–41 (1976) (federal government's "complete power . . . over public lands necessarily includes the power to regulate and protect the wildlife living there"). However, BLM also has ample authority to regulate activities on BLM-administered lands to avoid fully off-site environmental impacts. *See, e.g.*, *Cominco American Inc.*, 26 IBLA 329 (1976) (upholding BLM authority to condition its authorizations on protection of non-federal lands). In fact, BLM's own regulations require phosphate developers to "control on-site or *offsite damage* to the environment." 43 C.F.R. § 3591 (emphasis added). BLM fails to reconcile these authorities with its position that offsite impacts to sage-grouse stemming from BLM-authorized activities cannot be controlled.

In sum, BLM failed to apply RMP-mandated protections for birds attending the Dry Valley lek based on an erroneous legal premise, rendering its Caldwell Canyon authorizations arbitrary, capricious, and contrary to FLPMA. *See Or. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1132 (9th Cir. 2007) ("A BLM action premised on a faulty interpretation of its governing RMP consequently violates FLPMA"); *see also Safe Air For Everyone v. EPA*, 488 F.3d 1088, 1101 (9th Cir. 2007) (agency action based on "legally erroneous" conclusion is "'arbitrary, capricious, or otherwise not in accordance with law'").

IV. BLM VIOLATED FLPMA AND THE CLEAN WATER ACT BY AUTHORIZING POLLUTION IN VIOLATION OF STATE STANDARDS.

FLPMA regulations require BLM's land use authorizations contain terms and conditions that require compliance with applicable state water quality standards. 43 C.F.R. § 2920.7(b)(3). Similarly, the Clean Water Act requires federal agencies with "jurisdiction over any property" to

comply with all state requirements "respecting the control and abatement of water pollution." 33 U.S.C. § 1323(a). "Accordingly, federal agencies managing federal lands generally must comply with the water pollution laws and regulations of the relevant State, including the State's laws concerning discharges from nonpoint sources." *Cent. Sierra Env't Res. Ctr. v. Stanislaus Nat'l Forest*, 30 F.4th 929, 932 (9th Cir. 2022); *see also Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1149 (9th Cir. 2010) (Clean Water Act "requires federal agencies to determine that approved actions do not result in pollution in violation of state water quality standards.") The federal mineral interests involved here are, by definition, federal public lands. 43 U.S.C. § 1702(e).

The record demonstrates that BLM's authorizations for the Caldwell Canyon Mine fail to require compliance with Idaho water quality standards, in violation of 43 C.F.R. § 2920.7(b)(3). Furthermore, the project's development of federal mineral resources will not comply with Idaho law for the control and abatement of water pollution, including controls on the discharge or runoff of pollutants, in violation of 33 U.S.C. § 1323.

BLM admits that fugitive dust from the project will add selenium to the Blackfoot River and Dry Valley Creek, both of which already exceed Idaho's selenium water quality criteria for the protection of aquatic life. AR020544. Fish taken from some parts of this watershed are unsafe to eat because of selenium contamination. AR002270. BLM estimates that the project will add 5.53 kilograms of selenium to the Blackfoot River each year for 40 years, further impairing the beneficial uses of the river, including fish habitat and fishing. AR020544. This pollution will violate the state's anti-degradation policy, which provides that "existing in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." Idaho Admin. Code r. 58.01.02.051.

Furthermore, BLM's authorizations do not comply with Idaho's water pollution control requirements for nonpoint source pollution. These standards provide that best management practices for nonpoint pollution "should be designed, implemented and maintained to provide full protection or maintenance of beneficial uses." Idaho Admin. Code r. 58.01.02.350. Fugitive dust controls for the Caldwell Canyon Mine are limited to dust suppressants on roads and hoods and suppressants on processing equipment, AR071441, which will still allow 5.53 kilograms of selenium to enter the selenium-impaired Blackfoot River watershed each year for 40 years, AR020544; *see also* AR071684 (dust calculations account for use of best management practices). This falls short of the requirement for "best management practices" "designed…to provide full protection or maintenance of beneficial uses." Idaho Admin. Code r. 58.01.02.350.

In addition, the project entails stockpiling of high-selenium content ore at the processing area on the bank of Dry Valley Creek. BLM estimates that wind erosion of these stockpiles will emit 23.9 tons (about 21,682 kilograms) of dust each year, 466,163 milligrams of which will be selenium. AR020536–37. This violates Idaho's prohibition on storage and accumulation of hazardous and deleterious materials in the immediate vicinity of state waters, without adequate measures "to insure that those materials will not enter state waters as a result of high water, precipitation runoff, [or] wind." Idaho Admin. Code r. 58.01.02.800.[15]

Finally, the point source discharges from the project will not comply with Idaho's water quality standards. The project includes at least three categories of point source discharges that will add selenium and sediment to the Blackfoot River and its tributaries, which are already failing to

[15] *See also* Idaho Admin. Code r. 58.01.02.010.47 ("hazardous materials" include those which present a substantial potential hazard to the environment when discharged in any quantity into state waters); Idaho Admin. Code r. 58.01.02.010.21 ("deleterious materials" are any nontoxic substance which may *inter alia*, taint edible fish, or reduce the usability of water without causing physical injury).

meet water quality criteria for those pollutants. This violates the state's bedrock prohibition on discharges of pollutants which alone or in combination with other sources will result in a violation of water quality standards. Idaho Admin. Code r. 58.01.02.080.

First, the FEIS acknowledges that there will be point source discharges of industrial stormwater runoff from "disturbed areas or recently reclaimed backfill," requiring a Multi-Sector General Permit (MSGP) under the CWA's National Pollutant Discharge Elimination System (NPDES). AR071246; AR071426. *See also* 33 U.S.C. § 1342 (NPDES permits are for point source discharges). These discharges are anticipated to contain sediment. AR071426; AR071737. The receiving waters are sediment-impaired and subject to a total maximum daily load (TMDL). AR071300. This TMDL is already allocated to pre-existing sources of sediment. AR016351 ("the sediment load for Slug Creek is currently at its capacity; whereas, Dry Valley Creek requires a 30 percent reduction in erosion to meet its load capacity").[16] As there is no available load to allocate to Caldwell Canyon Mine discharges, the sediment discharges are disallowed. Idaho Admin. Code r. 58.01.02.055.05 ("discharges of causative pollutants shall be consistent with the allocations in the TMDL").

Second, the ditches conveying so-called "run-on" water from "undisturbed areas" around the east haul roads and processing area and into Dry Valley Creek are point sources. AR071427; 33 U.S.C. § 1362(14) (definition of point source includes "ditch"). BLM acknowledges that "mining and hauling activities would cause selenium to become airborne and be deposited on soil outside of the mine disturbance area." AR003160. Dust impacts are expected to extend for more than 1,100 meters from the point of disturbance, *id.* demonstrating that the "run-on" from these

[16] *See also* AR049799, AR49801 (load allocation for Chicken Creek requires reduction); AR48171 (load allocations require reductions for Dry Valley Creek and prohibit net increase for Slug Creek).

undisturbed areas will contain sediment and selenium. These pollutants will be discharged to Dry Valley Creek without any treatment. *See* AR071427; AR071440. These discharges do not comply with Idaho's antidegradation policy or the prohibition on discharges of pollutants which, in combination with other sources, result in a violation of water quality standards. Idaho Admin. Code r. 58.01.02.051, -.080.

Third, the equipment and railcars that deposit selenium-laden dust directly on to surface waters are point sources. *League of Wilderness Defs./Blue Mts. Biodiversity Project v. Forsgren*, 309 F.3d 1181, 1190 (9th Cir. 2002) (holding that aerial spray of pesticides onto water is a point source); *Sierra Club v. BNSF Ry. Co.*, No. C13-967-JCC, 2016 U.S. Dist. LEXIS 147786, at *32 (W.D. Wash. Oct. 25, 2016) (finding "particles allegedly discharged by BNSF trains that travel adjacent to and above the waters at issue are point source discharges because there is a discrete conveyance: the BNSF trains that travel directly next to or across the water.") *See also Cty. of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1475–76 (2020) (holding that a pipe that "hangs out over the water and adds pollutants to the air, through which the pollutants fall to navigable waters," is a point source and any interpretation to the contrary is obviously absurd). BLM estimates that the ore processing equipment at the tipple area on the bank of Dry Valley Creek will emit more than 1.65 tons (1,500 kilograms) of dust particles each year, 32,250 milligrams of which will be selenium. AR020536–37. In contrast, the selenium water quality criterion is 0.0031 milligrams per liter. Idaho Admin, Code r. 58.01.02.210.01. Here again, these discharges do not comply with Idaho's antidegradation policy or the prohibition on discharges of pollutants which, in combination with other sources, result in a violation of water quality standards, because Dry Valley Creek is already exceeding the selenium standard and permits no additional sediment or turbidity. Idaho Admin. Code r. 58.01.02.051, -.080.

BLM's conclusion that the project comports with water quality standards is unsupported, arbitrary, and capricious. BLM asserts that "[d]esignated beneficial uses for the Blackfoot River (cold water aquatic life, salmonid spawning, primary contact recreation and domestic water supply) would not be affected because selenium, other COPCs, and sediment would not be added," immediately after discussing its modeling showing 844 tons of dust, AR020537, including 5.5 kilograms of selenium, *would* be added to the river each year, AR003139. These facts contrast with those in *Greater Yellowstone Coalition v. Lewis*, 628 F.3d at 1149, where the court found that agencies' rigorous analysis supported their conclusion that reductions in selenium pollution from other sources would offset the increased selenium from the expansion of Smoky Canyon phosphate mine. Here, BLM has not identified any reductions or offsets, only increased selenium loads. Rather, in the decade since BLM authorized expansion of the nearby Smoky Canyon Mine and several other phosphate mines, selenium concentrations in the upper Blackfoot basin have increased, AR053878–79, -82–83, and the water quality criteria became more stringent. The Court should find that BLM's authorizations for the Caldwell Canyon Mine are arbitrary and contrary to law, including state water quality laws made binding on BLM by its FLPMA regulations and the Clean Water Act. 43 C.F.R. § 2920.7(b)(3); 33 U.S.C. § 1323(a).

CONCLUSION AND REMEDIES

Based on these NEPA, FLPMA, and CWA violations, the Court should grant Plaintiffs' motion for summary judgment and vacate BLM's Caldwell Canyon authorizations. Vacatur is the statutorily prescribed remedy under the APA. *See* 5 U.S.C. § 706(2)(A) ("court shall . . . set aside" unlawful agency action). Although courts have equitable discretion to depart from this remedy, the Ninth Circuit has cautioned that such exceptions should be granted "sparingly" and in "rare" and "limited" circumstances. *Nat'l Family Farm Coal. v. U.S. EPA*, 960 F.3d 1120, 1145 (9th Cir.

2020); *Pollinator Stewardship Council v. U.S. EPA*, 806 F.3d 520, 532 (9th Cir. 2015); *Humane Soc'y v. Locke*, 626 F.3d 1040, 1053 n.7 (9th Cir. 2010). In evaluating the equities, courts look to two factors: "the seriousness of the [agency's] deficiencies (and thus the extent of doubt whether the agency chose correctly)" and "the disruptive consequences" of vacatur. *See Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n*, 988 F.2d 146, 150–51 (D.C. Cir. 1993). Courts "also consider the extent to which either vacating or leaving the decision in place would risk environmental harm." *Nat'l Family Farm Coal.*, 960 F.3d at 1145. It is Defendants' burden to show compelling equities that "overcome the presumption of vacatur." *All. for the Wild Rockies v. U.S. Forest Serv.*, 907 F.3d 1105, 1122 (9th Cir. 2018).

BLM cannot meet that heavy burden here. BLM is extremely unlikely to be able to support the same authorizations on remand, because they violate FLPMA protections for sage-grouse and FLPMA and CWA protections for water quality. *See All. for the Wild Rockies*, 907 F.3d at 1122 (holding that project's inconsistency with forest plan "is sufficient to justify vacatur"). BLM's NEPA analysis must change, too, and may further alter BLM's decision-making. Where, as here, leaving the authorizations in place would cause more environmental harm, and the agency may reach a different decision on remand, vacatur is appropriate. *See, e.g.*, *Pollinator Stewardship Council*, 806 F.3d at 532–33.