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April 16, 2021

Kyra Povirk
District Ranger, Salmon-Cobalt Ranger District
311 McPherson Street
Salmon, ID 83467

Submitted via email to: comments-intermtn-salmon-challis-salmon-cobalt@usda.gov

Re: Colson Cobalt-Copper 3 Project Scoping Comments

Dear Ms. Povrik:

Thank you for considering our comments on the proposed Colson Cobalt-Copper 3 Project on the Salmon-Challis National Forest.

Since 1973, the Idaho Conservation League has been Idaho's voice for clean water, clean air, and public lands—values that are the foundation for Idaho's extraordinary quality of life. ICL works to protect these values through public education, outreach, advocacy, and policy development. As Idaho's largest state-based conservation organization, we represent over 30,000 supporters, many of whom who have a deep personal interest in ensuring that mineral exploration projects are designed to avoid, minimize, or mitigate impacts to our water, wildlands, and wildlife. ICL has previously submitted comments on minor exploration projects that predated this third exploration proposal from Codaho, LLC for work in the Colson Creek area.

Idaho Rivers United (IRU) is an environmental advocacy organization that is dedicated to protecting Idaho rivers and restoring our native fish populations. Since our inception in 1990,

IRU has been working to defend Wild and Scenic rivers, advocate for endangered and threatened aquatic species, reform hydropower policy, and promote enhanced water quality in all of Idaho's rivers. IRU represents over 5,000 members throughout Idaho and beyond. Our members and supporters expect protection of rivers for their ecological, scenic, and recreational values; accordingly, our mission is to execute thorough river preservation and conservation work to ensure environmental integrity of all of Idaho's rivers. We have successfully advocated for and defended Wild and Scenic designations and protections in the Owyhee Canyonlands and the Lochsa-Clearwater River corridor, among many others, and helped protect numerous rivers and watersheds throughout the regions from harmful mining and extraction impacts.

Founded in 1973, American Rivers is a leading conservation organization working to protect and restore the nation's rivers and streams. Our mission is to protect wild rivers, restore damaged rivers and conserve clean water for people and nature. Currently we have more than 355,000 members, supporters and volunteers throughout all 50 states, thousands of whom value the clean, free-flowing rivers and streams of Idaho's Salmon-Challis National Forest.

Although a permitted use of our public land, mining can permanently alter the landscape, soils, water and wildlife. While the project is currently limited to exploration activities, these activities are a precursor to a potential open or underground mining operation. If there were not the hope of mining this area, the exploration drilling would not be taking place. Any active mining project next to the iconic Salmon River would pose an unacceptable risk. We want to ensure that the Forest Service adequately evaluates potential environmental impacts and includes safeguards to reduce water quality degradation and the disturbance of wildlife and habitat. All mining activities and explorations should be stringently regulated and monitored.

We thank you for the opportunity to submit comments and ask that you please send us subsequent documents for this project. Please feel free to contact us if you have any questions.

Respectfully submitted,

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ICL/IRU/AR Scoping Comments on Colson Cobalt-Copper 3 Project

General Comments

The Forest Service should not treat this mineral exploration project simply like any other mineral exploration project on the Salmon-Challis National Forest. The particular location of this exploration project is very problematic and requires heightened attention and scrutiny. The special considerations for this project are substantial:

1. The project area is adjacent to the Wild and Scenic Salmon River, a world-class river that is federally protected with a "recreational" classification within the National Wild and Scenic Rivers System. The confluence of the Main Salmon River and the Middle Fork of the Salmon River is only a few miles downstream from the project site.
2. The Main Salmon River is home to several Endangered Species Act (ESA) listed fish species that could be adversely impacted by the project.
3. The Salmon River corridor is one of, if not the most, heavily-used recreation areas on the entire Salmon-Challis National Forest in terms of recreation.

Due to the sensitive nature of this project area, we believe that an Environmental Impact Statement is required. Given the extraordinary nature of the proposed project area, it is necessary for any environmental review of the proposed action to characterize existing conditions/baselines including but not limited to surface and groundwater quality, wildlife and their habitat, existing noise and light pollution levels, air quality, and cultural resources. Additionally, analysis must evaluate the cumulative, connected, and reasonably foreseeable impacts associated within the proposed activity whether they are "direct" or "indirect" in nature.

Should the Forest Service decide differently and proceed with an Environmental Assessment, we formally request that the Forest Service offer the public an opportunity to review and comment on a Draft Environmental Assessment for this project *prior* to a draft decision notice being issued. We are concerned that if the Forest Service goes the route of only issuing a final EA and draft decision, interested stakeholders (of which there are many in the Salmon River corridor) will not have sufficient opportunity to review and comment on the EA and identify and respond to potential concerns.

Wild and Scenic River Act

The Wild and Scenic Rivers Act (WSRA) was enacted by Congress in 1968 to protect selected rivers. Section 1(b) of the WRSA defines the Congressional policy for designated rivers as follows:

> *It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values,*

> *shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.*

River-administering agencies are given the authority and responsibility to protect identified outstandingly remarkable values, free-flowing condition, and water quality. According to Section 10(a) of the act:

> *Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without,insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeological, and scientific features.*

In July 1980, the Salmon River was designated by Congress as a component of the National Wild and Scenic Rivers System. The 46-mile segment from North Fork to Corn Creek is designated as recreational, while the 79-mile stretch from Corn Creek to Long Tom Bar is designated as a wild river. The Salmon River has numerous outstandingly remarkable values (ORVs) including Scenery, Recreation, Geology, Fish, Water Quality, Wildlife, Vegetation/Botany, Prehistory, History, and Traditional Use/Cultural. The Salmon River Resource Assessment, Appendix F of the Frank Church River of No Return Wilderness Management Plan, incorporated new resource information, including Threatened and Endangered Species, as ORVs. The Forest Service must thoroughly analyze any potential impacts to the ORVs from the proposed project.

The proposed drilling in this project is in very close proximity to the Main Salmon River, which is protected under the Wild & Scenic Rivers Act with a “recreational” classification for this stretch of the river. Based on the project map included in the scoping document, it appears that several of the proposed drilling sites are directly within the WSR management corridor, particularly the helicopter drilling sites proposed in Area 4. We expect this project to receive additional, close scrutiny in recognition of the exceptional natural and recreational significance of the Wild and Scenic Salmon River and how mineral exploration and potential development will adversely affect this precious resource.

The proposed project may impact wild and scenic river values within the management corridor through both the direct effects of drilling activities (sediment, noise, light, etc.), and the related traffic and transportation along the wild and scenic corridor for these activities. Congress declared in Section 1(b) of the Wild and Scenic Rivers Act the clear intent to protect water quality of designated rivers and “their immediate environments shall be protected for the benefit and enjoyment of present and future generations.” Though the recreational classification of the

adjacent stretch of river to the proposed project does not withdraw the immediate environment from mining and mineral leasing laws, the potential impacts to river values and water quality must be thoroughly considered and analyzed.

The Forest Service must allow reasonable access to mining claims but also is afforded discretion to adjust exploration proposals to minimize impacts to the WSR. Pursuant to the Forest Service Handbook 1909.12, "new mining claims, new mineral leases, and existing claims must minimize surface disturbance, sedimentation, pollution, and visual impairment." We expect the Forest Service to enforce these guidelines for this exploration project. In addition, Section 12(c) of the Wild and Scenic Rivers Act dictates that the river administering agency must "cooperate with the Administrator, Environmental Protection Agency and with the appropriate State water pollution control agencies for the purpose of eliminating or diminishing the pollution of waters of the river."

In conclusion, the Forest Service must thoroughly analyze the proposed project's impacts upon the values for which the Main Salmon River was designated as a Wild and Scenic River, and coordinate with other relevant federal agencies to protect river values.

Water Quality

We are concerned about the potential for any drilling-affected water to runoff the site directly into the nearby Salmon River in moderate to high precipitation events. The Plan of Operations should ensure that all water will be carefully managed. Spill clean up materials, firefighting gear, and a spill response plan need to be kept in all vehicles. In addition, an oil-absorbent boom should be available on site.

When the Forest Service receives a notice of intent to mine, reclamation and bonding may be necessary to mitigate for, or reclaim, the habitat loss of native fish. Standard MM-1 states:

> **MM-1.** Minimize adverse effects to inland native fish species from mineral operations. If the Notice of Intent indicates a mineral operation would be located in a RHCA, consider the effects of the activity on inland native fish in the determination of significance surface disturbance pursuant to 36 CFR 228.4. For operations in a RHCA ensure operators take all practicable measures to maintain, protect, and rehabilitate fish and wildlife habitat which may be affected by the operations. When bonding is required, consider (in the estimation of bond amount) the cost of stabilizing, rehabilitating, and reclaiming the area of operation.

The Forest Service must ensure that the operator has obtained a sufficient bond to cover all reclamation costs associated with this project.

INFISH also contains important standards and guidelines aimed at reducing the effects to water quality and fish habitat associated with roads. With regard to mining operations (including roads), Standard MM-2 requires:

> **MM-2.** Locate structures, support facilities, and roads outside RHCAs. Where no alternative to siting facilities in RHCAs exists, locate and construct the facilities in ways that avoid impacts to RHCAs and streams adverse effects on listed anadromous fish and inland native fish. Where no alternative to road construction exists, keep roads to the minimum necessary for the approved mineral activity. Close, obliterate and revegetate roads no longer required for mineral or land management activities

The agency must comply with all INFISH and PACFISH standards and requirements. Federal courts have previously invalidated Forest Service approvals on numerous mining operations based on violations of INFISH standards and road density standards contained in forest plans. The Forest Service should consider the road density in the area and determine whether the existing access road needs to be partially or fully decommissioned and revegetated following exploration. No violation of road standards or road density standards can occur.

The Scoping Report states that drilling will occur to a depth of 500-1500 feet. The Forest Service should evaluate whether drilling to these depths may encounter the groundwater table. And if so, the EA/EIS should consider opportunities to mitigate this risk through evaluation of different alternatives and site locations than those in the current plan of operations.

Groundwater could potentially be impacted by the disposal of drilling wastes in the drill pits/sumps. The recent Kilgore Exploration Project EA on the Caribou-Targhee National Forest included this assessment: "*A common concern is the potential for high-sulfide drill cuttings contained in the mud to generate acid rock drainage and/or leach metals which might then migrate into shallow groundwater...The quantity of cuttings and material generated from the drill hole is relatively small and inconsequential in terms of the potential for acid generation. Disposal of cuttings will be localized and poses little risk of groundwater contamination*."

While impacts from the dumping of drill wastes on the surface have been documented, there is no research to definitively demonstrate that sumps either do or do not contaminate groundwater supplies. The Forest Service must take a hard look to see if the material in the drill pits may contaminate surface or groundwater.

The Kilgore EA also noted, "*Fluids in the sumps would be permitted to evaporate and infiltrate prior to closure and reclamation. Water monitoring of the project area streams would continue, providing regular checks on surface water quality*." This assessment ignored the fact that

precipitation will perpetually infiltrate this material. Some leaching of the material in these pits is inevitable.

We recommend that the Forest Service consider two options. First, eliminate the sumps altogether, either by reinjecting the drill cuttings back down the drill hole at closure, or by taking the drill cuttings for offsite disposal, as has been employed at many exploration drill sites. Or alternatively, line the sumps with an artificial liner before the drill cuttings are placed to ensure the infiltration rate remains low to minimize impacts to groundwater. The Forest Service would have to factor in meteoric water and ensure that sumps do not overflow.

Baseline Water Quality and Quantity Studies

Mineralized areas often contain naturally occurring contaminants of concern such as arsenic. These contaminants may be securely bound within the surrounding rock matrix or may be leaching into groundwater. In previous mineral exploration projects, the Forest Service acknowledged that exploration drilling can affect groundwater resources. Aquifers can be vulnerable to degradation during and following exploration drilling in the following ways:

- Contamination through open boreholes by run-off water from the surface
- Separate aquifers could become interconnected through drillholes
- Cross-flow between aquifers may be induced by natural pressure differences or pressure differentials induced by pumping
- Contamination by certain types of drilling fluids (Golden Meadows EA at 3-31)

The pressure from a water column in deep drill holes may be sufficient pressure to cause hydraulic fracturing, especially with fractures already present in the rock. If water loss occurs in the lower part of the hole, it is unclear which aquifers it contaminates. We note that high pressurized drilling activities in the vicinity of the Glory Hole at the Stibnite area on the Payette National Forest resulted in at least one case in drilling fluids moving laterally through fractured bedrock, exiting the sides of the abandoned mine pit, and entering the East Fork South Fork Salmon below. The close proximity of the Salmon River to the drill sites and steep terrain raises concerns that a similar event could occur here and the Forest Service should incorporate additional design features to address this.

The Forest Service needs to assure that there will be no changes or impacts to groundwater as a result of drilling operations and, as a result, that there is a need for a groundwater baseline study. The Forest Service should require basic design features such as drill logs tracking the depth to bedrock, the water table and any losses in drilling fluid from bedrock fractures because of the assumption that proper well closing would eliminate contamination issues. The Forest Service also needs to address contamination that could occur during drilling operations and before the bore holes are sealed.

The Forest Service is required to "describe the environment of the areas to be affected or created by the alternatives under consideration." 40 C.F.R. § 1502.15. The establishment of the baseline conditions of the affected environment is a fundamental requirement of the NEPA process:

> NEPA clearly requires that consideration of environmental impacts of proposed projects take place before [a final decision] is made." LaFlamme v. FERC, 842 F.2d 1063, 1071 (9th Cir.1988) (emphasis in original). **Once a project begins, the "pre-project environment" becomes a thing of the past, thereby making evaluation of the project's effect on pre-project resources impossible. Id. Without establishing the baseline conditions which exist in the vicinity … before [the project] begins, there is simply no way to determine what effect the proposed [project] will have on the environment and, consequently, no way to comply with NEPA.**

Half Moon Bay Fisherman's Mark't Ass'n v. Carlucci, 857 F.2d 505, 510 (9th Cir. 1988) (emphasis added). "In analyzing the affected environment, NEPA requires the agency to set forth the baseline conditions." Western Watersheds Project v. BLM, 552 F.Supp.2d 1113, 1126 (D. Nev. 2008) (emphasis added). "The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process." Council of Environmental Quality, Considering Cumulative Effects under the National Environmental Policy Act (May 11, 1999).

The Forest Service and operator need to establish baseline surface and groundwater water quality sampling upgradient of, within and downgradient of the project area. This would include establishing water quality sampling points in Long Tom Creek and the unnamed drainage between Long Tom Creek and Colson Creek. The Forest Service should describe the monitoring locations, the frequency of testing, the triggers for additional actions, and the protocols if these triggers are tripped. It is important to establish baseline water quality sampling well in advance of drilling operations and encompass both annual and seasonal variations. Groundwater could be mapped and sampled through an investigation of springs and seeps in the area.

We note that the Forest Service and Otis Gold were able to comply with these standards in the original Kilgore North Project. In that, Otis Gold agreed to create an annual report that includes analysis of the surface water and ground water quality data noting any changes to water chemistry. The parameters would remain the same as baseline monitoring. The yearly report was going to be provided to the Forest minerals administrative staff administering the Plan of Operation. The results from these studies were to be included in the environmental analysis for this project.

In addition, if water quality data indicates an increased concentration of hazardous substances in the sample analysis over 3 consecutive months, the Forest will require the operator to investigate

possible causes for the negative change in water quality, provide the forest a written report, and recommend mitigation if water quality contaminant increases are directly the result of exploration operations.

The Kilgore North Project also incorporated a design feature that if water quality analysis indicates water quality has degraded based on the state and federal water quality standards for surface and groundwater, operations will cease until mitigation can be implemented to protect surface and groundwater. The Idaho Department of Environmental Quality will be notified and informed of the situation.

We note that the Decision Notice for the latest EA for the Kilgore Project was revoked following litigation by the Idaho Conservation League and colleagues because of the lack of adequate baseline water monitoring in a new drilling area. The Forest Service and new owner are working to address that deficiency now. The Colson-Cobalt Drilling 3 Project should contain more protective requirements than those used at Kilgore. Until the operator collects three or more years of this baseline sampling, proceeding with the NEPA analysis is premature.

Fisheries, Wildlife, and Plants

The Forest Service should consult with the U.S. Fish and Wildlife Service and NOAA Fisheries to evaluate the effects of this exploration project on fish and amphibian species inhabiting this watershed.

Drilling site activities and related transportation corridors appear to have the potential to impact several tributary streams to the Salmon River, including Colson Creek, Long Tom Creek, and Rattlesnake Gulch. Several proposed drilling sites (#13, 15, 17, 18) are proposed on a steep slope immediately adjacent to the Salmon River. The Salmon River provides habitat and a migration corridor for several ESA-listed fish species including Snake River spring-summer Chinook salmon, steelhead, sockeye salmon, and bull trout. All perennial streams within the Salmon River are designated as “Critical Habitat” under the Endangered Species Act for both Chinook salmon and sockeye salmon. The Salmon River and Colson Creek are designated “Critical Habitat” for bull trout. Any potential for drilling contact waters, or sediment to enter the Salmon River must be mitigated to eliminate harmful impacts to ESA-listed fish species. We recommend placing fine meshing around all water intake hoses to discourage incidental suction take of aquatic organisms when acquiring water for this project.

Impacts to wildlife need to be avoided, minimized and mitigated. We are concerned about displacement of wildlife due to noise, light, and an increase of human activity in the project area. Drilling should be limited to daylight hours to reduce impacts to wildlife. All sumps should be surrounded by low mesh nets to prevent ground animals from falling into the sumps and contain an escape ramp to facilitate the escape of any entrapped wildlife.

We are also concerned about potential impacts to listed, candidate, sensitive or Forest Watch plant species. Because exploration will take place during plant propagation and growth periods, the Forest Service should thoroughly survey the project area for plants of concern prior to and during exploration operations.

The Salmon River Canyon is also noted to have a significant population of bighorn sheep. Impacts to this resident species from the proposed project should also be specifically addressed.

Development of Alternatives

The Forest Service should seriously consider the development of additional project alternatives for the Draft EA or EIS beyond simply the no action alternative and the operator's proposed plan of operations.

One of the most obvious alternatives to consider is one that minimizes the amount of new road construction to better address sedimentation and visual impacts in the Salmon River WSR corridor. The amount of temporary road construction could be reduced by a combination of removing some of the proposed drill sites and/or expanding the amount of helicopter drilling (which may have its own, different impacts). To not consider an alternative that minimizes the impacts from temporary road construction in this highly sensitive area would be an oversight in our opinion.

Based on the map included within the scoping document, it appears that as many as 30 of the 38 proposed drill sites fall within a half mile of the WSR corridor boundary (i.e. within 0.75 miles of river's edge). The Forest Service should consider a project alternative that is specifically designed to minimize and reduce impacts from drill sites to WSR values. This could be achieved by adjusting site locations, utilizing directional drilling, and considering whether fewer pads can be constructed.

Other alternatives that would minimize this project's impact to the area's fish and wildlife, scenery, and recreational values should also be considered and analyzed by the Forest Service in the Draft Environmental Assessment.

Recreation Impacts

The Forest Service must thoroughly analyze the impacts of the proposed project to recreation. In comparison to the majority of mineral exploration projects in the Salmon-Challis National Forest, which typically occur in remote backcountry areas, this project is located along one of, if not the most heavily-used recreational corridors on the entire Forest. The Salmon River corridor of course includes a recreational Wild and Scenic River designation and the busy Salmon River Road, which provides access to numerous boat ramps, campgrounds, and trailheads. The Long

Tom Campground/Picnic Area is in very close proximity to the proposed drilling area and would be substantially impacted during the drilling season.

Recreation opportunities on the wild segment of the river are so highly sought after that the summer rafting season has a permit lottery system. This stretch of river is so popular that during the floating season there is less than a five percent chance of an applicant winning a permit in the lottery. There are 33 commercially permitted outfitters that take thousands of guests down this stretch of river each year. The Main Salmon River is a major economic driver for the region, and visitors to the Main Salmon alone spend $13.5 million annually in the local area, supporting 95 jobs and $2.4 million in annual labor income, according to the 2018 Salmon Challis NF Assessment Report. The recreational segment of the Wild and Scenic Salmon River also sees moderate to high use during the summer months, and river boating contributes significantly to the local economy (SCNF 2018 Assessment).

The Salmon River Road is utilized year round by residents and visiting recreationists and outfitters, with substantial use during the summer river floating season and fall hunting season. This corridor sees heavy traffic for day use sites, both outfitted and private river floating on the day use stretch of river and the multiday Wild and Scenic stretches of the Middle Fork and Main Salmon Rivers. Approximately one mile downstream of several proposed drilling sites lies the confluence of the Main Salmon River and Middle Fork Salmon River, and the Stoddard Trailhead day use area and ramp. Middle Fork river outfitters often utilize the Stoddard Trailhead as the take-out site for guests to avoid the congestion at Cache Bar Boat Ramp, where guests will enjoy lunch prior to departing back home.

For many visitors to the Middle Fork of the Salmon River, both private and commercial guests, the scenic drive upstream on Salmon River Road along the Wild and Scenic corridor is the culmination of a world class wilderness and adventure experience, where they see Rocky Mountain bighorn sheep, dramatic canyon landscapes of the Idaho Batholith, historic sites, and watch rafters and kayakers enjoy the rapids along the day use stretch. Travelers to the Corn Creek put-in, located approximately five miles downstream of Cache Bar, for the multi-day wilderness stretch of the Wild and Scenic Salmon River enjoy this same experience. The proposed drilling sites, and the related heavy equipment and helicopters, would significantly impact the recreational experience and character of the Salmon River corridor, by altering the landscape, influencing wildlife, and increasing traffic.

There are currently seven permitted commercial outfitters that utilize the recreational stretch of the Wild and Scenic Salmon River. In 2020, 10,190 people floated the Wild and Scenic Salmon River, and 11,618 people floated the Middle Fork Salmon River. It can be assumed that the vast majority of these visitors utilized the Salmon River Road for river access or exit.

We suggest that the Forest Service analyze the impacts of increased transportation along Salmon River Road from the proposed project. Alternatives should include travel management plans to reduce transportation risks.

Road Construction

This proposal calls for the construction of up to 12.6 miles of new temporary roads and the reopening of a closed Forest Service Route (#60432). We are concerned by this amount of additional road construction and disturbance in the proposed plan. The density of the proposed road network is far too high to feasibly fully reclaim the roads after exploration activities have ended, particularly in an area with such limited and seasonal precipitation patterns. Furthermore, these routes are not supporting native vegetation species or patterns and are fragmenting habitat on a site-specific scale. New exploration activities should seek to remedy this situation and properly restore these disturbed areas as part of the mitigation program.

We are also concerned that the large amount of new road construction will destabilize the slopes substantially and lead to mass slope failures. In essence, the switchbacks could break up the structural integrity of the hillside in several places, affecting both the tensile strength and compressive strength of the hillside. Road construction should not be allowed in moderate to high-risk landslide areas. Other risk factors the Forest Service should examine are the proximity of roads along contour lines and effects of rain on snow events. Where road construction is permitted, the Forest Service should require best management practices (BMPs) including water bars, rolling dips, and silt fences in a manner that minimizes water quality impacts. Weed-free straw bales should line any drainage to protect runoff areas and streams from sedimentation and be removed upon completion of operations. In instances where roads cross a stream, specifications of culverts or bridges should reflect the capacity of 100-year floods and allow for fish passage. Road development should be constructed and maintained to ensure adequate drainage in accordance with Forest Plan guideline MIGU06 (III-50)[6].

We are also concerned that sump construction could also destabilize hill slopes. In areas of steep terrain or in close proximity to streams, we recommend utilizing portable water tanks instead.

Reclamation

From our experience, “temporary” roads built on steep, dry, sagebrush-dominated hillsides are very hard to reclaim and tend to become much more permanent than expected. For example, the “reclamation” of temporary roads on similar types of dry, sagebrush slopes at the Black Pine project in southern Idaho still resulted in noticeable scars remaining on the landscape because of the inability for vegetation to recolonize disturbed areas on those steep slopes with minimal soil (Figure 1).

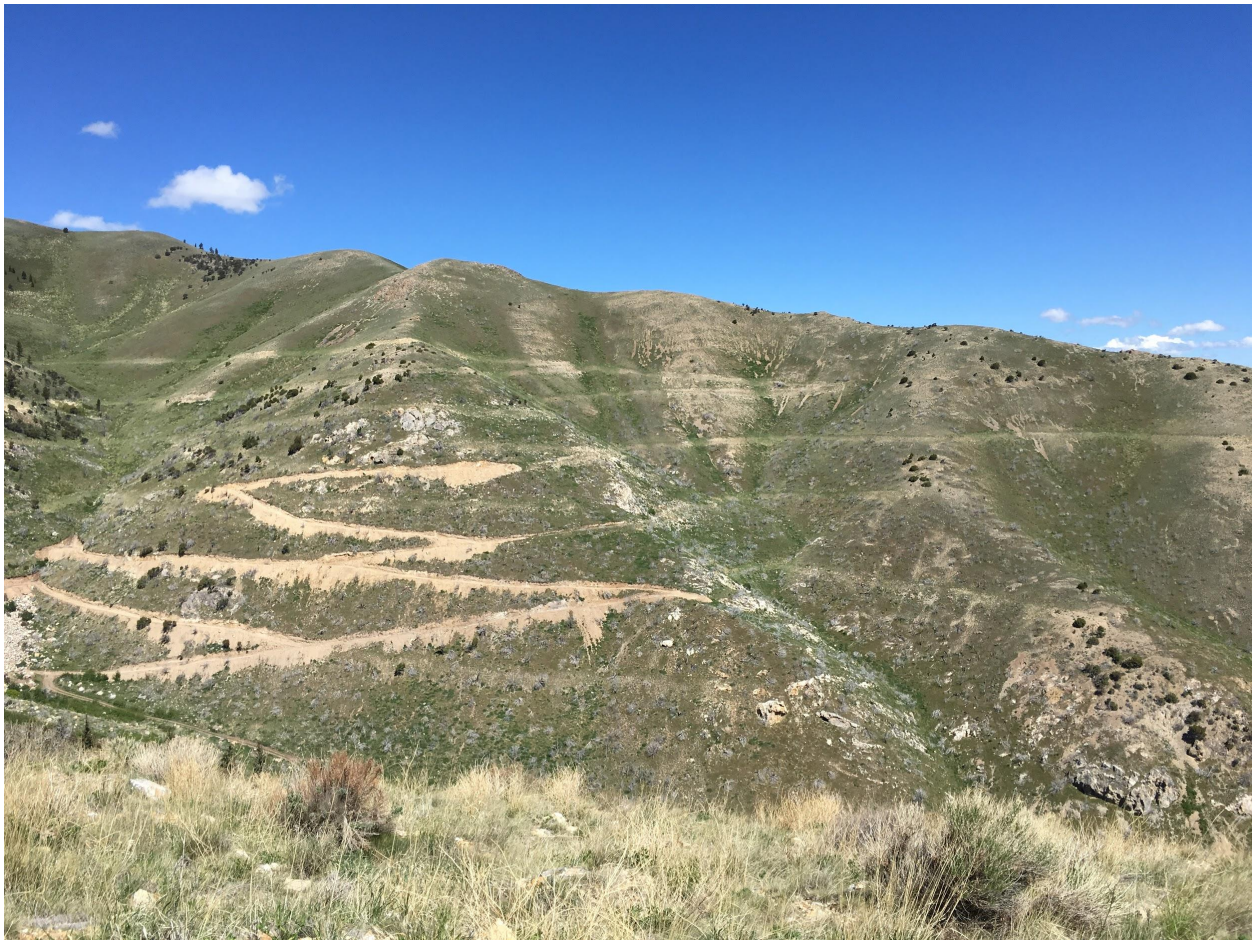

Figure 1. *ICL photo from field tour at Black Pine project site in southern Idaho showing that previously "reclaimed" roads still have distinctly visible scars on the landscape.*

Given that this operator has already conducted exploration activities and temporary road building under previously-approved plans of operations, the Forest Service should disclose in the EA/EIS how prior reclamation has gone at the site, including photos. It is imperative that prior reclamation activities are meeting the appropriate standards before the Forest Service moves ahead to approve a significant expansion of surface disturbance and road construction.

We are skeptical that the operator will be able to completely reclaim this area to its original hydrological and biotic functioning condition. The possibility of reclaiming and re-contouring these switchbacks and the overall road system will be extremely difficult given the width and compaction of the constructed roadbeds and the steepness of the slopes. The Forest Service should take a hard look at the feasibility of pulling fill slope material back up to the roadbed and re-contouring the hillside to the original slopes and successfully revegetating these routes with native species. We recommend that end-hauling be required to reduce impacts and aid reclamation efforts. Stockpiles of topsoil should be covered or seeded to reduce sedimentation and coarse woody debris should be salvaged for reclamation.

The Forest Service should require concurrent reclamation so that a minimal road system and drill pad area is active at any one time and the site to a more natural condition than presently exists. At no time should there be a road density above 2 miles/square mile. We believe that obliteration of non-system roads should be core components of reclamation. Any topsoil or large woody debris should be salvaged and replaced following operations. All non-system roads and drill pads should be completely obliterated and reclaimed following exploration activities.

Visual Quality Impacts

This proposal is likely to have significant visual impacts to the Main Salmon WSR corridor as well as the Middle Fork of the Salmon River near its confluence with the Main Salmon River. The Salmon River Resource Assessment included in the Frank Church Wilderness of No Return Management Plan identified "scenery" as an outstandingly remarkable value for the entirety of the designated river. The WSR management plan for the recreational stretch of the Main Salmon River states that the visual management objectives are to "retain existing character" in this reach. The established boundaries of the Wild and Scenic designation of the Salmon River include one fourth mile from the mean high water mark. This boundary, as defined in the Salmon River Wild and Scenic Management Plan, was defined to consider the "need for protecting visual quality of the viewed foreground." As part of the EA for this project, the Forest Service should contract with a landscape architect/visual quality specialist to conduct a robust Visual Quality Objectives analysis.

Noise and Light Disturbance

The Forest Service should consider the impacts that artificial noise and lighting will have on the surrounding environment. Construction activity within the project area will displace wildlife such as elk, deer, raptors, bears, wolverines, and others. We note that this area of Central Idaho is within one of the largest areas in the United States largely unaffected by light pollution. In addition to diminished aesthetics, light pollution can have a host of negative impacts on wildlife, including disruption of nocturnal animals and migrating birds[1].

Although many of the proposed drill sites are technically outside of the wild and scenic river corridor, the noise and light that those drilling activities will produce will likely bleed over into that management corridor due to the close proximity of the activities.

We request that the Forest Service implement noise and light-reducing features for all activities for every stage of this project. Examples of effective techniques that should be considered as part of this project include:

- Mufflers or sound control devices on all construction vehicles

[1] See: http://www.darksky.org/light-pollution/wildlife/

- Scheduling noise-producing activities concurrently when possible
- Restrictions on hours of operations if possible
- Installation of night shields on outside lights if work is to be performed at night
- Monitoring of the effectiveness of noise reduction measures

Additionally, the Forest Service does not describe whether operators will use a generator or not. If a generator is allowed, decibels should be regulated, and fuel adequately contained with secondary containment systems.

Water Rights

Water rights need to be obtained for any and all water use. We recommend placing fine meshing around all water intake hoses to discourage incidental suction take of aquatic organisms when acquiring for this project. Since water is proposed to be drawn from local streams (Rattlesnake Gulch, Long Tom Creek, unnamed tributary to Colson Creek 2), impacts to water temperature and associated impacts to aquatic organisms from the dewatering of those streams should be analyzed.

Fire Risk

Summer operations will increase the risk of wildfire. Fire fighting equipment should be in all vehicles. We also recommend that the operator be required to develop an evacuation plan and identify potential safe zones in the event of a wildfire. If fires are allowed, operators should utilize a fire pan or designated fire rings. Only completely combustible items should be burned (with special attention paid to foil-lined packages). All trash, including microtrash, needs to be disposed of properly on a regular basis, not just at the completion of activities.

Hazardous Materials

A hazardous material plan needs to be in place in the event of a fuel or solvent leak anywhere from the nearest gas station to the mine site. Hazardous wastes including grease, oil, and fuels need to be disposed off-site in an environmentally appropriate manner on a weekly basis. Fuel containment equipment, including chemical absorbers and booms to intercept stream transport need to be on site. Regularly inspected fire extinguishers need to be placed in all vehicles.

On-Site Living

The proposed action does not mention the possibility of overnight stay on the site. If the operator requires overnight stay on site, specific design criteria to minimize impacts needs to also be incorporated into the plan of operations. A portable toilet should be required on site.

Noxious Weeds

The operator should be required to wash all equipment, including the undercarriage of vehicles, before entering the National Forest. We also recommend that all equipment, including boots and

pant cuffs, need to be brushed before entering the site. Disturbed soil areas need to be reseeded with native plants, and weeded to prevent expansion of noxious weeds. A noxious weed monitoring and treatment program needs to be implemented as part of this project.

Monitoring

While we expect that the Forest Service will make regular site visits to ensure compliance with mitigation measures, the frequency of these visits is not clear. The Forest Service should also engage in spot inspections without prior notification. If compliance with the plan of operations becomes an issue or if unanticipated issues arise, the Forest Service should require the operator to cease activities. Site monitoring for successful road and drill pad reclamation should be conducted for a minimum of two years after final reclamation occurs. A bond should be held by the Forest Service until this time.

Bonding

The scoping letter does not mention the need for bonding. A bond should be developed that is substantive enough to cover the potential impacts to the area's ecosystem as well as the area surrounding the transportation route. Given that the Main Salmon Wild and Scenic River is directly alongside the project area, this bond should be set at an appropriately high amount. Bonding should also be provided for possible spills of fuels and other hazardous materials along the roadsides. Bonding costs should be calculated according to Forest Service pricing, including the cost of renting and transporting equipment and wages for all workers and supervisors. These bonding calculations should be included in an environmental review and available for public comment and review.