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

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

Re: Iron Creek Exploration Drilling Project Scoping Comments

Dear Ms. Filbert:

Thank you for considering our comments on the proposed Iron Creek Exploration Drilling 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 25,000 supporters, many of whom 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 many similar exploration drilling projects across the Salmon-Challis NF.

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 could be a precursor to a more substantial mining operation. If there were not the hope of mining this area, the exploration drilling would not be taking place. 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.

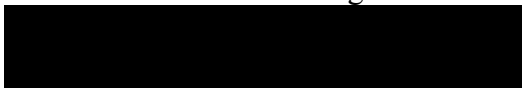
This is a significant mineral exploration proposal that calls for the construction of up to 92 drill pads and 11.9 acres of disturbance over a 10-year period.

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,



Idaho Conservation League



ICL Scoping Comments on Iron Creek Exploration Drilling Project

Water Quality

We are concerned about the potential for any drilling-affected water to runoff the site directly into the nearby creeks and rivers 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 Forest Service should evaluate whether drilling to the depths proposed in this project 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 several other 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. Third, water storage containers could be used instead of sumps, particularly in areas with steep hillsides where sumps could compromise hillside integrity or where accidental sump overflows could result in drilling fluids reaching streams.

Additionally, this exploration project should contain a well-designed water quality monitoring plan consisting of an appropriate number of surface water and groundwater monitoring sites. These sites should be located with a distribution to fully capture any potential water quality impacts from drilling that could occur during the life of the project.

Baseline Water Quality

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 drill holes
- 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/ Attachment #3)

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 Forest Service must 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 boreholes 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. 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 three 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 Iron Creek Exploration Drilling Project should have baseline water quality data collected prior to when exploration drilling commences.

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.

The Forest Service should consider an action alternative in the EA that analyzes the use of helicopters for additional drill sites in lieu of new temporary road construction, particularly for areas that do not already have significant road construction. 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.

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.

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.

Reclamation

The Decision Notice should require a monitoring program with photo points showing conditions before disturbance, during operations, immediately following reclamation and two years following reclamation for each drill site. We note that noxious weeds that become established may not be widely visible until several seasons following reclamation attempts and long term monitoring is important.

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.

Unauthorized Routes

The Salmon-Challis National Forest has a significant number of unauthorized routes. We recommend that the Operator work with the Forest Service to obliterate and permanently decommission these types of routes in the project vicinity as a form of compensatory mitigation for the new drill pads the Operator will be building in the project area.

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 birds¹.

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
- 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

¹ See: <http://www.darksky.org/light-pollution/wildlife/>

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, 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 and respect fire restrictions. 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.

Transportation

In order to reduce impacts to the public, we recommend that transportation of heavy equipment be limited to weekdays and not allowed on public holidays, and the day before opening day and opening day of hunting seasons. The Forest Service should consider requiring the operator to inform the County and members of the public about the timing for transporting equipment and working out a schedule to minimize conflicts.

We recommend developing a specific travel access plan that minimizes the risk of a fuel spill into creeks, reduces the chances of collisions with other vehicles, and minimizes the risk of vehicles striking wildlife. There may need to be some timely form of road maintenance along the access route before operations commence.

The Forest Service needs to complete a petroleum risk assessment and risk reduction procedures report, similar to one developed by the Payette National Forest for the Golden Meadows Project (see Attached). The Forest Service should develop design features including the use of flaggers and pilot cars to reduce conflicts with other motorists. Please see Transportation Risk Reduction Measures for the January 2016 Decision Notice and FONSI, Golden Meadows Project [at this link: Appendix C, p. 1-6](#) (Attachment #4).

All vehicles should maintain slow speeds to minimize fugitive dust. For road segments that cross riparian areas, popular camping areas or private residences, we recommend either resurfacing, paving these or applying some form of dust suppression measures. We note that Midas Gold

agreed to mitigate for its Golden Meadows exploration project by applying additional gravel on several miles of roads adjacent to waterways where Chinook redds were located and applying additional dust control measures at select stream crossings. We recommend further defining the speeds for each section of the access route and requiring other safeguards as based on the transportation risk reduction assessment.

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. We also recommend caching spill cleanup equipment at strategic locations along the transportation route.

On-Site Living

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. Any generators used to staff camping need to be restricted to normal campground hours of operation.

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. As discussed above, a long term noxious weed monitoring and treatment program needs to be implemented as part of this project.

Site 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.

We also ask that the project webpage include a tab for posting monitoring documents. We note that the Boise National Forest has a tab on the 2018 Cumo Project that includes rare plant reports

and photo monitoring, Plan of Operations and bond information, quality assurance project plan and groundwater sampling plan, wildlife monitoring, stormwater pollution prevention plan inspections, records of stabilization and construction activities, training log and employee attendance, and mineral inspection reports. The Forest Service should post monitoring documents including compliance with regulations and any corrective actions taken.

For more details, please see <https://www.fs.usda.gov/project/?project=52875>.

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. 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.