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**Subject:** 215 - ARO Letter - Silver Strand Underground Lode Mine Project DN - IPNFs - Appeal #05-01-00-0024 - Idaho Conservation League

**To:** Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by Justin Hayes on behalf of the Idaho Conservation League protesting the Silver Strand Underground Lode Mine Project Decision Notice (DN) on the Idaho Panhandle National Forests.

Deputy District Ranger Linda McFaddan signed the Silver Strand Mine Environmental Assessment (EA), DN, and Finding of No Significant Impact (FONSI) on March 21, 2005. A legal notice announcing the decision was published in the newspaper of record, the *Spokesman Review*, on March 30, 2005 (PR, Vol. 4, Doc. 19).

The selection of Alternative 3-modified authorizes the following activities associated with New Jersey Mining Company's POO to conduct mining activities on National Forest System lands on the Coeur d'Alene River Ranger District, Idaho Panhandle National Forests (DN, p. 3).

- 1) Construction and rehabilitation upon closure of an adit and underground ramp to access and develop a mineralized ore body;
- 2) Construction and reclamation after closure of a waste rock storage area for waste rock disposal;
- 3) Construction and removal after completion of mining of an ore storage bin and loading dock;
- 4) Construction and siting of a portable paste backfill plant and temporary tailings storage bin for manufacturing paste for underground disposal and backfilling of tailings;
- 5) Construction and removal upon closure of a pole building for equipment storage and maintenance;
- 6) Construction and removal upon closure of a compressor station, and other required ancillary equipment (portable self-contained outhouse, electrical generator, water pumps, water storage tanks, etc.);
- 7) Construction, use and reclamation of a gravity-fed drip wastewater land application system;
- 8) Construction of a wastewater injection disposal well after obtaining and complying with other third-party agency permit requirements;
- 9) Construction, maintenance, monitoring, and reclamation of various erosion and sediment control structures;
- 10) Use and maintenance of Lone Cabin Creek Road (FS Route 411) and Burnt Cabin Creek Road (Road #206), and two non-system existing roads (Mine Road #2 and #255) during the life of the mine;
- 11) Construction, maintenance and reclamation upon closure of a short temporary access road to the waste rock storage site (RSS);



- 12) Ongoing and post-closure environmental monitoring and reclamation activities; and
- 13) Haulage of ore off-site to a processing mill located in Kellogg, Idaho, on private lands, and returns of portions of the spent tailings for use as backfill in the underground mine.

My review was conducted pursuant to, and in accordance with, 36 CFR 215.19 to ensure the analysis and decision is in compliance with applicable laws, regulations, policy, and orders. The appeal record, including the appellant's objections and recommended changes, has been thoroughly reviewed. Although I may not have listed each specific issue, I have considered all the issues raised in the appeal and believe they are adequately addressed below.

The appellant alleges violations of the National Environmental Policy Act (NEPA). The appellant requests a reversal of the DN. An informal meeting was held but no resolution of the issues was reached.

## ISSUE REVIEW

**Issue 1. The project should have been analyzed with an EIS because issues are “significant.” Appellants contend the agency did not take a “hard look” nor disclose the “important, significant, or essential” direct, indirect, or cumulative effects of the action.**

**Response:** The regulations at 40 CFR 1501.4(c) provide for the preparation of an EA to determine whether or not to prepare an Environmental Impact Statement (EIS). The District Ranger determined that this project is not a major federal action with significant effects on the quality of the human environment. Supporting information and rationale for the FONSI can be found on pages 22-27 of the DN.

The agency did take a hard look and disclosed the direct, indirect and cumulative effects of the proposed action. Direct, indirect, and cumulative effects of the project activities on resources are discussed in the EA in Chapter IV, Appendix A (Supplemental Effects Disclosure); Appendix B (Comments Received During Scoping); and Appendix C (Response to Comments). Alternative 3-modified will not adversely affect threatened and endangered species, sensitive wildlife and plant species, big game habitat, fisheries, water quality, soil productivity, noxious weeds, recreation opportunities, cultural resources, commercial timber resources, scenery, or social and economic conditions (ROD, p. 22). Supporting wildlife documentation can be found in the Biological Assessment (BA) (PR, Vol. 2, Tab 4, Doc. 1) and the Biological Evaluation (BE) (PR, Vol. 2, Tab 5, Doc. 1).

**Issue 2. The agency needed to produce an EIS due to potential for acid-rock drainage (ARD) and potential for drainage to change over the life of the mine. Appellants contend there is lack of analyses regarding mobilization of heavy metals from waste rock piles and that the potential significant uncertainties exist in pre-development test work on ramp development rock.**

**Response:** The EA, DN, and project record contain information and analysis that support the assessment of ARD and the conclusion (DN, pp. 39-40) that there is a very low likelihood of ARD from the proposed operations. This information includes waste and ore rock characterization, geophysical investigation, and information from existing mine drainage and mine waste dumps that have been in place for over 20 years (PR, Vol. 1, Tab 1, Doc. 1, pp 8-10 and 14, and Doc. 15, p. 1; PR, Vol. 3, Tab 9, Doc 1, pp. 13-14, 22-23, and 51; PR, Vol. 6, p. 6). In addition, the DN (pp. 5-7, Stipulations S-1, S-3, S-4, and S-7) requires several mitigation measures for monitoring and describes the steps that the company would be required to take to take care of any unforeseen acid drainage problems. Stipulation S-1 in the DN (pp. 5-6) also requires additional characterization analysis for the ramp development rock and puts in place a rigorous sampling and testing plan and development of an ARD mitigation plan if needed for placement of this rock in the RSS. Stipulation 26 in the DN (p. 14) adopts additional monitoring requirements and states that the operator is required to cease operations and submit an updated POO if encountered conditions vary significantly from the assumptions made in the EA analysis. Any significant changes would require modification of the POO and compliance with NEPA. I find that the information and data in the project record are adequate to characterize the ore and waste rock, to determine the potential for acid-rock drainage, and to minimize the effects of any unforeseen ARD issues.

**Issue 3. There is lack of analyses for slope stability of RSS area.**

**Response:** The EA, DN, and project record contain information and analysis that assess the slope stability of the RSS. The operator conducted a geotechnical analysis of the RSS (PR, Vol. 1, Doc. 4). Forest Service contractors that are qualified engineers and geologists reviewed the operator's slope stability models and conducted other slope stability models based on field observations and measurements (PR, Vol. 3, Tab 9, Doc. 1, pp. 56-59) Qualified Forest Service geologists and engineers also reviewed the models and performed independent analysis (PR, Vol. 3, Tab 10, Doc. 1). The assumptions made in the models either took a conservative approach or used information observed at the site (see cites above), and based on these analyses, the EA evaluated and the DN (pp. 5-7) adopted several alternatives to minimize the potential for slope failure and environmental impacts of the RSS. I find that project record contains adequate slope analysis through analysis of several different models and that the assumptions for the modeling are adequate to assess the slope stability.

**Issue 4. The EA does not adequately describe how tailings suitable for injection will be stored and that tailings need to be capped and lined.**

**Response:** As required by Stipulation S-11 in the DN, the tailings temporarily stored at the mine site must be covered at all times to prevent release of tailings to the environment and must be depleted (used for the backfill operation) before the end of the operating season. I find that this stipulation adequately describes and evaluates the on-site storage of tailings and addresses this issue.

**Issue 5. Appellants contend that injecting waste water could allow waste to accumulate in unmapped workings. The EA does not describe flow rates/quality of water to be injected if an injection well is utilized.**

**Response:** Stipulation S-5 in the DN (p. 7) states that if an injection well is needed for disposal of mine drainage water a hydrogeologic investigation, certification, and/or permits by the Idaho Department of Environmental Quality (IDEQ) or Environmental Protection Agency (EPA) are required prior to implementation of the use of an injection well system. However, I recommend to the ADO that any future need of an injection well will require the operator to submit a new POO or a supplemental POO. The Forest Service will then conduct the appropriate NEPA analysis. With these instructions in place, I find that these issues are without merit.

**Issue 6. All Clean Water Act Permits need to be obtained prior to submitting a Plan for NEPA review, as per the Templeton Dredging Permit Plan Operation's case on the Nez Perce National Forest.**

**Response:** The Clean Water Act (CWA) requires that the operator obtain certification from the State of Idaho prior to Forest Service approval of the POO (*CWA § 401, 33 U.S.C. § 1341*). The Forest did consult with the EPA, IDEQ, and the U.S. Army Corps of Engineers (USACE) on the project, and determined that State of Idaho certification is required for a CWA 404 permit (PR, Vol. 4, Tab 14, Doc. 4). As the Responsible Official indicated on page 28 of the DN, this certification is required prior to approval of the POO. Therefore, I find that this issue is without merit.

**Issue 7. NPDES permits are required for the connection hydraulic between old stopes and adit drainage and the Land Application System. A U.S. Army Corps of Engineers Permit is also required unless waste rock is dump capped and lined.**

**Response:** The Responsible Official states on page 26 of the DN that IDEQ, USACE, and EPA were consulted and their suggestions were incorporated in the decision, and that the agencies have found that the proposed operation, with the mandatory mitigation measures, is compliant with applicable water quality regulations (Response to Comments #5, DN, p. 36). Therefore, I find that these contentions are without merit.

**Issue 8. The proposed action will increase temperature levels in the drainage.**

**Response:** The Forest identified several BMP mitigation measures during their evaluation of the proposed POO (EA, p. 16) that effectively eliminates sediment delivery to the drainage (EA, p. 46). In addition, Response to Comments #18 and #21 (EA, pp. 17-18 and 20) state the IDEQ has determined that there will be no net increase in sediment, and therefore, no violation of the TMDL as a result of this project, and that there will be no activities that would affect areas shading active waters. Therefore, I find that this contention has no merit.

**Issue 9. A conventional waste water treatment facility should have been considered as an alternative.**

**Response:** As stated in the DN (p. 21), a water treatment plant did not merit detailed analysis because there will be no surface water discharge from the site. In addition, the EA and project record contain information and analysis that assess the short term and long term effectiveness of

the Land Application System (LAS) and conclude that the LAS will be effective to treat mine waters (EA, pp. 48-49; PR, Vol. 1, Tab 1, Doc 13; PR, Vol. 3, Tab 9, Doc. 11, pp. 25-26). Therefore, I find that it was appropriate to not conduct a detailed analysis of a water treatment alternative.

**Issue 10. All Clean Air Act Permits need to be obtained prior to submitting a Plan for NEPA review.**

**Response:** A letter from Idaho Department of Health and Welfare, Division of Environmental Quality, to New Jersey Joint Venture stated that the project is categorically exempt from air quality permit requirements (PR, Vol. 5, Tab 26, Doc. 1). A fugitive dust control and air quality stipulation has been included in the decision (DN, p. 13). The hydrology, soils, geology, and geotechnical specialist conducted a fugitive dust/air quality analysis (PR, Vol. 3, Tab 9, Doc. 1, p. 24).

**Issue 11. An IDWR water right is needed for withdrawal from Lone Cabin Creek.**

**Response:** As stated in Response to Comments #7 (DN, p. 37), the operator has applied for and been granted a water right from the Idaho Department of Water Resources. Therefore, I find this contention is without merit.

**Issue 12. The EA inadequately analyzes road design for surface erosion.**

**Response:** In Response to Comments received during scoping, the Forest Service acknowledged conducting a formal roads analysis for this project, which led to subsequent design features and mitigation (EA, Appendix C, pp. 12 and 17-18). In addition, the Watershed Erosion Prediction Project (WEPP) soil erosion and sediment delivery model was run to verify the effectiveness of the proposed mitigation and alternative comparisons (EA, Appendix C, pp. 17; PR, Vol. 3, Tab 9, Doc. 1, Appendix C). The EA analyzed sediment delivery and soil erosion rates, including roads, for the project (EA, p. 67). The EA considered, but dropped a full bench road alternative because Alternative 6 was deemed to be more practical, which eliminated some of the steeper portions of the access route (EA, p. 24). I find that the Forest adequately analyzed road design and surface erosion for the project.

**Issue 13. Fisheries will be significantly impacted by metals.**

**Response:** The agency took a hard look and disclosed the direct, indirect and cumulative effects of the proposed action on fisheries, including westslope cutthroat trout. Direct, indirect, and cumulative effects of the project activities on fisheries are discussed in the EA on pages 53-61, Appendix C (Response to Comments), the BA (PR, Vol. 2, Tab 4, Doc. 1) and the BE (PR, Vol. 2, Tab 5, Doc. 1). Alternative 3-modified may impact individuals or habitat, but will not likely result in a trend toward federal listing or reduced viability for the population or species. Mitigation measures to protect the environment from unnecessary and unreasonable degradation are outlined in the DN, POO, the EA and specialist reports, and meet the requirements of 36 CFR 228.8 and other applicable Federal and State guidelines (Response to Comments, p. 17).

**Issue 14. The reclamation plan is insufficient.**

**Response:** The POO with the required mitigation measures ensures that all disturbed areas will be immediately reclaimed upon the completion of the specific activity (EA, Mitigation #19, p. 18); requires the operator to update topographic maps (EA, Mitigation #23, p. 19) and as-built drawings as the project proceeds (see Response to Comments, #19, DN, p. 44); and requires that all mine roads will be re-contoured and scarified (EA, p. 16). The DN adopts the provisions of Alternative 5 that requires several reclamation measures to minimize environmental impacts of the RSS (DN, p. 20). As stated in Stipulation S-15 (DN, p. 10), the operator is required to initiate final reclamation no later than 2 years after the completion of the project; that all disturbed areas will be seeded, fertilized and mulched; and that such areas need to be at least 65 percent covered with weed-free vegetation. I find that the reclamation plan with all the Forest Service required mitigation measures and stipulations are adequate to minimize adverse environmental impacts.

**Issue 15. There are inadequate environmental protections for the transportation corridor, including HAZMAT.**

**Response:** As stated in Response to Comments #12, the operator is required to meet applicable U.S. Department of Transportation and IDEQ Hazardous Waste Program requirements for hazardous wastes, including a spill prevention and response plan, as well as meeting Forest Service fire requirements. In addition, the operator must meet the Mine Safety and Health Administration (MSHA) transportation safety provisions and the Bureau of Alcohol, Tobacco, and Firearms (BATF) explosives-handling requirements and other safety provisions (DN, S-9, S-12, and S-25, pp. 8-9 and 13), and control of fugitive dust (DN, S-22, p. 13). I find that these requirements are adequate protection measures for minimizing adverse environmental effects from hazardous wastes.

**Issue 16. The cumulative effects area should not be limited to 0.5 miles, but should extend 20 miles downstream.**

**Response:** Rationale for determining the cumulative effects analysis area for fisheries is provided in the EA (p. 59), BA (PR, Vol. 2, Tab 4, p. 17) and the BE (PR, Vol. 2, Tab 5, p. 31). A determination of the cumulative effects analysis area is based on each fish species' ability and likelihood to migrate seasonally within a drainage area in relation to available habitat, life stage, and boundaries that represent the point of diminishing potential effects. Focusing on waterborne sediments and potential pollutants, the extent of the effects area is determined by how far downstream these constituents are likely to travel and affect habitat or aquatic species. For the Silver Strand Project, the cumulative effects analysis area was determined to be the Lone Cabin Creek from the Silver Strand project area to its confluence with Burnt Cabin Creek and continuing downstream 0.8 kilometer (0.5 miles). I find this analysis area to be appropriate.

**Issue 17. Additional analysis should be provided to link development and processing.**

**Response:** The EA (p. 6 and Appendix A) and the DN (p. 4 and Appendix A, p. 11) identify activities related to the project that will occur on private land, including the mill. Both

documents explain how the mill is directly associated with the activities on National Forest System lands. They also explain how regulation of the mill on private property is the responsibility of the IDEQ.

Appendix A of the EA provides a supplemental effects disclosure to address concerns over the mill site that exists on private lands and has been proposed as the processing site for ores transported from the Silver Strand Mine. The supplemental effects disclosure discusses the roles and authorities of Silver Strand Mine (New Jersey Mining Company), the Forest Service, the State of Idaho, other federal agencies and Shoshone County related to the development of the private land. The disclosure focuses on the consequences of the private mill site operation and whether the applicant has secured the necessary State permits which will adequately maintain air and water quality, and prevent the infestation and spread of noxious weeds. It also addresses concerns about road degradation and public safety from hauling activity considered an indirect effect of approving the POO.

## **RECOMMENDATION**

I have reviewed the record for each of the contentions addressed above and have found that the analysis and decision adequately address the issues raised by the appellant. I recommend the District Ranger's decision be affirmed with the following instructions; and the appellant's requested relief be denied.

### Recommended Instructions:

- 1) Ensure, as stated under the Implementation section of the DN (p. 28), that the operator is required to obtain State of Idaho certification for all CWA permits prior to approval of the POO.
- 2) Do not approve the waste water injection well under the proposed POO. In the event that the operator and/or agencies decide that a waste water injection well should be further investigated and proposed for use, the operator would be required to submit a new or supplemental POO that would be subject to the public involvement and disclosure requirements of NEPA. Also require the operator to obtain State of Idaho certification for this potential project prior to approval of this POO.

/s/ Barry Paulson (for)  
DAVID T. BULL  
Appeal Reviewing Officer