

Chapter/Appendix	Page	Section	Topic	Comment
Chapter 3	3.5-10	3.5.3.4	Special-Status Species	Table 3.5-2: Bat Species Recorded within 0.5 miles of the Permit Area lists California myotis (<i>Myotis californicus</i>) during the May - August observation. Please update Table 3.5-3 State-Designated Sensitive Species Observed in the Study Area to include California myotis and revise the paragraph preceding this table to reflect that <i>eight</i> (rather than seven) state listed sensitive species were observed within the study area.
Chapter 3	3.5-10	3.5	State Designated Sensitive Species Observed in the Study Area	As noted in this section, IPaC indicates that the monarch butterfly (<i>Danaus plexippus</i>), a candidate for federal listing under the ESA, may be present at certain times of the year. Please note that we are anticipating a listing decision for the monarch butterfly in December 2024. If the decision is made to not start the conference process with the Service, and the species is in fact listed under the ESA, the lead Federal action agency will need to initiate the Section 7 consultation process for the project.
Chapter 3	3.5-7	3.5.3.2	Terrestrial Species	The Service recommends no activity within a 2-mile buffer of active eagle nests that are within line of sight of the project from Jan. 1 to July 15; although, the buffer distance may be adjusted if natural topography or environmental features are present to provide a buffering effect. If a nest is within 2.0 miles and within line of sight of the activity, USFWS recommends obtaining an eagle take permit.
Chapter 3	3.5-7	3.5.3.2	Terrestrial Species	The Service recommends avoiding disturbance of any known ferruginous hawk nests within a 0.5 mile buffer from March 5- June 15th. While the Migratory Bird Treaty Act does not specifically prohibit nest disturbance, it does prohibit take. If disturbance from project activities cause abandonment of the nest and eggs or chicks are present, such activities would be a violation of the Act.
Chapter 3	3.5-14	3.5	Traffic Impacts	Please discuss the impacts to wildlife of increased recreational use associated with widening and improving the access road.
Chapter 2.2	2-38	2.2.2.5	Water supply alternatives	The option to convey water via a pipeline was estimated to have larger disturbance. Was this estimate based on the pipeline being located under the existing road or alongside it? The disturbance levels would differ between these two pipe locations; if buried under the road (with the footprint of an existing disturbance), this would alleviate the impacts to springs that have been identified as a significant concern.
Chapter 2.2	2-38	2.2.2.5	Water supply alternatives	This section lacks support for the conclusion that the pipeline would have greater impacts to wildlife and rangelands than the onsite water wells and seems to have not considered the potential for springs to be dewatered and the follow-on consequences to wildlife and rangelands. Please provide further discussion.
Chapter 2.2	2-38	2.2.2.5	Water supply alternatives	This section lacks support for the conclusion that on site groundwater wells will provide sufficient water for the project to preclude the need for other water supply options in the future of the project or seasonally (ex. trucking in water, piping in an external water supply, drilling additional ground water supply wells beyond the 4 proposed). This point is reiterated in 2.2.3.11 where it states "There are no alternative water supplies identified for the proposed Project." Please provide additional rationale as to why no back-up water supply options have been identified.
Chapter 2.2	All	NA	Cost evaluation	The TRT must evaluate if alternatives are practicable, "including costs that would render the mining operation infeasible". This chapter does not provide any actual cost comparisons of alternatives, only relative comparisons, nor does it provide a means to evaluate the actual cost of alternatives in terms of feasibility for the operation. OAR 632-037-0010 also states that the TRT must evaluate if costs are "significantly disproportionate to the potential environmental benefits", yet it is unclear how one would weigh costs which are quantifiable (though they have not been precisely quantified in the EE) against environmental benefit which is measured in a multitude of ways.
Chapter 2.2	2-38	2.2.2.6	Power supply alternatives	Deterrents are unlikely to prevent ravens from utilizing the power poles and research shows that negative impacts from tall structures can extend >15 km. Furthermore, fire risk is increased as a result of overhead powerlines. Please include a description of the wildfire risk reduction in addition to the wildlife benefits that would be conferred through burying the transmission line. Please see comment pertaining to cost evaluation and include information that the TRT can use to evaluate the environmental benefits and practicality of burying the transmission line.
Chapter 2.2	2-40	2.2.3.1	Alternate TSF locations	Stantec states that they "reviewed and accepted the rationale for excluding alternate TSF locations provided in the Applicant's alternative analysis" because they were "either technically infeasible, economically infeasible or did not result in an environmental benefit...". Please provide information so that the TRT can make this evaluation as they are required per OAR determine if the BAPNT is being applied to the project.
Chapter 2.2	2-42	2.2.3.3	Alternate TSF designs	Please provide a citation to support this statement: "When installed to design specifications, synthetically lined facilities using prepared subgrades, embankment dams designed for seismic conditions, and leak detection, monitoring, and inspection equipment and procedures have been as protective or more protective of water resources compared to other designs in use as assessed by operational upset conditions including tailings excursions, process water releases, and facility leakage from existing facilities in the arid western United States."
Chapter 2.2	2-46	2.2.3.6	Alternate gold extraction processes	There is no discussion of the suitability for several alternatives (e.g., hydrometallurgical methods, whole mud cyanide leaching, etc.)
Chapter 2.2	2-46	2.2.3.6	Alternate gold extraction processes	For several alternatives a conclusion is made that the method is not suitable for the project, but does not provide any explanation for the conclusion (e.g., flotation, froth flotation).
Chapter 2.2	2-47	2.2.3.6	Alternate gold extraction processes	For complete analysis, please provide information about the availability of third party processing plants to process Calico's ores. Additionally, it is the responsibility of the TRT to determine if this method is not a practicable alternative, so all information to evaluate should be included (quantified environmental impacts, costs, etc.)
Chapter 2.2	2-47	2.2.3.6	Alternate gold extraction processes	This statement: "No alternative gold extraction processes have been identified as reasonable alternatives to the proposed Project," should be a determination by the TRT with the evidence presented in the EE and BAPNT. However, as noted in several comments, the EE currently does not have complete information to aid the TRT in making a determination.
Chapter 2.2	2-51	2.2.3.9	Non-cyanide gold extraction processes	Additional costs is included as a reason for rejecting alternatives described in this section (e.g., thiourea) yet this chapter does not provide any actual cost comparisons of alternatives, only relative comparisons, nor does it provide a means to evaluate the actual cost of alternatives in terms of feasibility for the operation versus environmental benefits.
Chapter 2.2	2-52	2.2.3.9	Thiosulfate leaching	The EE states, "Further analysis is required to understand the potential effects of using thiosulfate leaching in the extraction of gold as an alternative to the proposed Project." If the TRT is to render a decision on BAPNT, this additional analysis must be completed and provided.
Chapter 2.2	2-53	2.2.3.11	Alternative water supplies	This statement: "There are no surface water supplies suitable for this project..." is based on an incomplete evaluation of the municipal water source, and the statement, "There are no alternative water supplies identified for the proposed Project" is misleading because the municipal water source remains an alternative.
Chapter 2.2	2-54	2.2.3.14	Alternative reclamation strategies	Adding manure to top soil could introduce weeds to the reclamation area.
Chapter 2.2	21	2.2.3	Alternatives to backfilling	Are there alternatives to the CRF Backfill plan? These (or a lack of alternatives) should be addressed in this chapter.
Chapter 2.2	2-57	2.2.5	Project Component Alternatives Considered in the Environmental Evaluation	The EE states that thiosulfate was eliminated as a result of "further evaluation" that had been conducted. Yet no details of that "further evaluation" are provided. Please provide additional information. Also, this section provides a contradictory statement: "The thiosulfate leaching process may be a feasible alternative to the use of cyanide for gold extraction and is incorporated into this EE as Alternative A."

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Chapter 2.2	2-61	2.2.6.3	Alternative A	The EE states, "While recovery estimates for thiosulfate processing of Grassy Mountain ore have not been specifically developed..." To fully analyze the alternative these should be completed rather than attempt to extrapolate from other mines. Although this would extend the schedule, the environmental benefits must be considered against <u>locally</u> derived gold recovery estimates so that the TRT has adequate information to evaluate BAPNT.
Chapter 2	2-42	2.2.3.3	Alternative Tailings Storage Facility Designs	Discussion of the environmental consequences (i.e. water quality) of a dam breach with tailings are not included, apparently because this is outside the purview of the Water Resources Department statutory authority. Despite the lack of regulatory oversight, it is irresponsible to not address the potential consequences in terms of down slope toxicity effects in the event of a tailings breach that would run-out 12 miles. What is the range of toxicity expected in this material (tailings solids) and is this an environmental quality concern if breached? Recommend additional information about these risks. Note: There is more information about this in the Credible Accidents section; potentially refer to that section for expanded discussion.
Appendix B	B-7	B - 3.1	Wildlife Risk	Additional information about the planned actions (fuel reduction around facilities and roads, for example) and whether the environmental consequences of these were considered in Chapter 2 is requested. For example, "The Applicant intends to collaborate with the Bureau of Land Management (BLM) to ensure a natural fire regime in the Project area because this plays an important role in creating suitable habitat for the greater sage- grouse's adult and nest survival (SLR International Corporation 2024)." implies that additional action or the decision to implement proposed mitigations has not yet been made. Please clarify.
Appendix B	B-1	B - 1	Introduction/General Purpose	The introduction states that a goal of this section is to "identify methods of preventing such accidents [that are described in the appendix] from occurring". How would non-compliance by the operators with such methods be dealt with? Based on observations from other DOGAMI permitted activities, we are concerned with the regulatory feedback loop and oversight once permitted to ensure the Applicant complies with permits stipulations. Appendix B states most accidents (and presumably permit compliance issues) are human caused; additional information about the feedback loop and role, timelines, of the regulatory oversight agency, MSHA then OSHA and other agencies, is requested.
Chapter 3	3.3-10	3.3.4.2	Water Resources / GW Drawdown in "Applicant's Prop	Based on the statement "The maximum extent of the combined dewatering 10-foot drawdown of groundwater would occur in approximately 600 acres of the Negro Rock Canyon drainage area. A new groundwater equilibrium is predicted after approximately 100 years of recovery. Impacts to groundwater quantity as a result of the Proposed Action would be major, long term to permanent, and localized" we recommend long term adoption of monitoring wells beyond site closure to fully understand impacts to ecosystem and ground water supplies. No mention of long-term localized impacts to springs appears included in this evaluation. Please clarify.
Appendix A	A-5	A-3.2	Cyanide Management	The statement "When combined with personal protective equipment (PPE) and industrial hygiene controls during operations, these control measures...reduce or remove cyanide concentrations in process solutions to levels where their presence in supernatant and process water ponds does not pose a risk to environmental receptors." PPE and industrial hygiene controls due not provide a benefit to wildlife or reduce environmental risk so the control measures that specifically reduce risk to the environment should be provided here (or distinguish the measures to reduce human risk vs ecological risk).
Appendix A	A-5 to A-6	A-3.2	Cyanide Management	It is stated here that the feasibility study indicated cyanide detoxification could reduce WAD cyanide to 15 mg/L, yet the applicant has demonstrated that the detoxification process can achieve a level of 1 mg/L or less. Adopt the target level of 1 mg/L (a value supported by the ecological risk assessment) and derive contingency actions for when concentrations exceed 1 mg/L, 15 mg/L, and 30 mg/L.
Appendix A	A-6	A-3.2	Cyanide Management	The Service fully agrees with and supports the statement "Principle 7 of the Global Industry Standard on Tailings Management (2020) describes best practices for designing, implementing, and operating monitoring systems in all phases of the TSF lifecycle. This principle covers important monitoring designs including designing a monitoring plan with adaptive management, using the observation method to mitigate or reduce risk in unfavorable situations, creating specific and measurable performance objectives, recording and evaluating data at appropriate frequencies, addressing values outside of the expected range, and reporting results to meet company and regulatory requirements (Global Industry Standards on Tailings Management, 2020)." The current EE, Appendices, and Tailings Monitoring Plan lack specifics in the design of a monitoring plan with adaptive management including spatial coverage of samples, which constituents to analyze, and frequency of sampling, along with contingency measures and to be initiated when constituent concentrations exceed thresholds and use of the observation method to mitigate risk. These details should be worked out in coordination with ODEQ, USFWS, and ODFW and updated in the Tailings Monitoring Plan and in Appendix C of the EE to fulfill Principal 7 of the Global Industry Standard on Tailings Management.
Appendix A	A-8	A-3.2	Wildlife Exclusion from the Mill	This section does not include a description of the bird ball deterrents and other methods proposed to deter wildlife from the TSF and other ponds.
Appendix A	A-8	A-3.2	Reclamation	Please include evaluation of the alternative of burying the transmission line and associated benefits related the reduction of wildfire and wildlife risk and the potential benefits of having power conveyed underground to the site during the reclamation and monitoring period, instead of use of generators during the reclamation phase.
Appendix A	A-11	A-3.3	Leak detection	This section states that it could take up to week to detect a leak in the TSF liner. Please expand upon the environmental consequences of a leak going undetected for that duration of time. This is especially important since "...flow time in the collection pipes would be on the order of a few hours..." and "The detection of leaks would occur at the time that the lead detection sump was inspected..." so leaks could be detected much sooner than a week with daily inspections at least in the initial stages of the project.
Appendix A	A-12	A-3.3.	Monitoring of mined materials	Requiring monitoring of mined materials during operations to confirm and update the potential for acid generation and metal leaching should be included in permit conditions.
Appendix A	A-13, A-21	A-3.3	Monitoring and treatment of noxious weeds	This document does not discuss how long after closure the applicant will monitor and treat noxious weeds. Recent research by USGS indicates that weeds increase considerably at extents 5km (and likely beyond) up to 20+ years post mine construction. Monitoring and treatment of weeds should be required for a minimum of 20 years within a minimal 5km buffer around the project site, including access roads.
Appendix A	A-17 - A18	A-3.4	Water management	The alternative analysis in Chapter 2 for the use of municipal water via a buried pipeline was not descriptive enough to conclude that this option would be more environmentally detrimental. Was installing the pipe under the existing road considered to minimize disturbance?
Appendix A (and App	A-25- A27	A-3.5	Acid Rock Drainage	Waste rock and ore stockpiles (and potentially the underground mine) provide the mostly likely acid rock drainage (ARD) sources. These sources could leach sulfate, arsenic, cadmium, chromium, copper, fluoride, iron, manganese, selenium, and zinc. Specifics need to be added here on how to note, quantify, and characterize seepage and its chemistry. Please also provide greater detail with a map indicating the location of sampling for ARD (including the 15 groundwater wells and locations of surface water or groundwater interface areas to be sampled), as well as the contingency measures that can occur should guidance thresholds be exceeded.
Chapter 2, Appendix	2-32, A-21	2.1.18.2, A-3.4	Noxious weed management	On page 2-32 it is indicated that noxious weed monitoring/control will occur for 5 years post cessation of operations. Appendix A, page A-21 states that weed surveys will occur "through final reclamation", so it is unclear how long noxious weed monitoring and control will actually be implemented. Recent research by USGS indicates that weeds increase considerably at extents 5km (and likely beyond) up to 20+ years post mine construction. Monitoring and treatment of weeds should be required for a minimum of 20 years within a minimal 5km buffer around the project site, including access roads.
Appendix A	A-25	A-3.6	TSF leak management	The previous sections and Chapter 2 describe various methods to detect TSF leaks, however, Appendix A and Chapter 2 do not describe actions that will be taken in the event of the leak. Contingency actions need to be added to this section.
Appendix A	A-27	Table A-3	Economical feasibility	Very little information has been provided to allow the TRT to assess the economic feasibility of technologies. Rather, technologies are simply evaluated in broad relative terms. Similarly, the ranking of the technologies according to environmental impacts is also conducted as a course relative scale. Without quantitative analyses and transparency of those analyses, these rankings do not provide the TRT with adequate information to assess alternatives.
Appendix A	A-27	Table A-3	Chemical ore processing	Insufficient information and analyses was provided to allow the TRT to conclude that thiosulfate leaching is not technically feasible.
Appendix A	A-29	Table A-3	Leak detection	The leak detection options all would benefit wildlife.
Appendix A	A-30	Table A-3	Hypersalinization	Why would hypersalinization be neutral for wildlife? Please explain the analysis concluding that it would not be economically feasible.
Chapter 2	2-33	2.1.18.3	Seasonal restrictions	Regarding the footnote on seasonal restrictions, any actions that could impact migratory birds (not just golden eagles) would require coordination with USFWS. Under the Migratory Bird Treaty Act, incidental take of migratory birds is unlawful without authorization. Peer reviewed literature provides evidence that disturbance of active nests within proposed buffers within certain timing windows has the potential to lead to nest abandonment and the death (take) of chicks.

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Chapter 2	2-34	2.1.18.4	Compensatory mitigation	This statement, "The Project must meet the standard of "no overall net loss" of fish and wildlife habitat through compliance with the ODFW Fish and Wildlife Habitat Mitigation Policy" does not reflect ODFW's sage-grouse mitigation policy which requires net gain.
Chapter 3	3.3-11	3.3.4.2	Impacts to groundwater	The EE states that if the Proposed Action results in reduced spring flow, springs could be supplemented with groundwater pumped by new groundwater wells installed or piping of groundwater from existing wells to the spring. The environmental effects of this possible mitigation measure are not discussed and must be included in the analyses.
Chapter 3	3.3-1 - 3.3-14	3.3	Impacts to water resources	This section does not include an analysis of how the alternatives, in conjunction with predictions from climate change models, are considered in the water budget and modeling for project water availability and how this would impact water resources in the area.
Chapter 3	3.5-10	Table 3.5-3	Threats to ferruginous hawk, golden eagle, etc.	Electrocution, nest abandonment due to disturbance are additional threats to these species.
Chapter 3	3.5-13	3.5.4.2	Impacts to wildlife and special status species	This section fails to analyze impacts to wildlife as a result of the road construction, particularly nesting golden eagles and ferruginous hawks near the roadway.
Chapter 4	4-9	Table 4-2	DOGAMI projects/actions	Please double check the statement that there are "no permits for exploration or extraction in Malheur County". There are in fact other permits in the county (e.g., DOGAMI permit 23-0293 is within 40 mi and DOGAMI permit 23-0287 is within 20 mi of the Calico project area). There are also multiple exploration permits for lithium in the southern portion of Malheur County.
Chapter 3	3.5-13	3.5	Noise impacts to sage-grouse	Please provide a more detailed analysis about the noise effects to sage-grouse and nesting eagles/raptors. Consultants with Mason, Bruce & Girard produced figures showing the noise attenuation with respect to these sensitive species, yet these analyses are not detailed in the EE.
Chapter 3	3.6-9	3.6	Impact analysis - noxious weeds	Recent research by USGS (in prep) has documented ~14% increase in invasive annual grasses up to 23 years after mines are constructed extending out to 5 km, despite reclamation and monitoring/control activities. Thus, the EE likely underestimates the impact of the Proposed Action on the spread and establishment of invasive and non-native species.
Chapter 4	4-1	4.2	Scope of analysis for Cumulative Impacts	The Applicant's nearby gold mining claims are directly relevant to the cumulative impact analysis and the EE fails to justify why they should not be considered within the scope of analysis. The Technical Review Team had an extensive discussion about inclusion of the Frost claims in the cumulative impacts analysis thus more detail must be provided in the EE to explain omission from the analysis. Per OAR 632-037-0085, these additional claims meet the definition of a connected action given that gold extracted from the Frost claims could be processed at the Grassy Mountain facility and are thus "interdependent parts of a larger action and rely on the larger action for their justification." Additionally, the potential development of the Frost claims can be considered a "similar action" per OAR 632-037-0085 in terms of shared geography and type of disturbance and it can also be considered "separate action" because the same environmental resources will be impacted.
Chapter 4	4-3	4.3	Methods for Cumulative Impacts Analysis	It is unclear why this analysis only included future projects and actions. The impacts of the Proposed Action must be considered on the whole with past and ongoing impacts for a complete cumulative impacts analysis per OAR 632-037-0085 (as stated on page 4-1).
Chapter 4	4-11	4.5	Cumulative impacts assessment - Boardman to Hemingway Transmission Line	The conclusions drawn do not account for the permanent loss of habitat and increased predation threat associated with the B2H transmission line to which the Grassy Mountain Gold Project would contribute.
Chapter 4	4-12	4.5	Cumulative impacts assessment - recreation	The EE underestimates the effect of increased OHV pressure resulting from the SEORMP reclassification of areas open for OHV use in combination improved road access resulting from mine construction. Increased OHV activity is an added disturbance to wildlife and has a high potential contribute to permanent increases in invasive plants. These impacts are not "minor".
Chapter 5	5-13	5.4	Additional mitigation measures	Suggest additional mitigation measures such as monitoring traffic and OHV use prior to, during, and after site development and road upgrades and identifying mitigation options if increases are documented.
Chapter 4	4-4	4.4	Identification of Cumulative Actions & Projects	Water resources summary table should include the potential impacts to water quality from spill, leaks, TSF failure, etc. and cumulative impact potential of contaminants from other actions to groundwater resources.