



Oregon

Tina Kotek, Governor

Department of Geology and Mineral Industries

Mineral Land Regulation & Reclamation

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November 3, 2023

Glen van Treek

Calico Resources USA Corp./Paramount Gold Nevada Corp.
665 Anderson St.
Winnemucca, NV 89445

RE: DETERMINATION OF COMPLETENESS AND NOTICE TO PROCEED WITH PERMITTING PROCESS
Consolidated Permit Application for Chemical Process Mining
Calico Resources USA Corp. Grassy Mountain Mine Project

Dear Mr. van Treek:

The Oregon Department of Geology and Mineral Industries (Department) and permitting and cooperating agencies have completed their review of the revised Consolidated Permit Application (CPA) for the Grassy Mountain Project, as well as additional information submitted by Calico Resources USA Corp. (Calico or Applicant) in response to the Department's and permitting and cooperating agencies' requests for additional information. All such project documents are available to the public on the Department's website.

After reviewing the responses and revised exhibits, the Technical Review Team has unanimously concurred with the Department's determination that the CPA is complete pursuant to Oregon Revised Statute (ORS) 517.977 and Oregon Administrative Rule (OAR) 632-037-0080, as of October 4, 2023. In addition, on October 9, 2023, the Department received an updated version of the revised CPA with all changes resulting from responses to requests for additional information and has posted the updated CPA on the Department's website.

Accordingly, the Department issues this Notice to Proceed with the permitting process and the preparation of draft permits.

This determination of completeness does not denote a recommendation of approval of any permit; rather, a CPA is complete when the Department finds that it contains adequate information to evaluate compliance with all applicable standards for the purpose of issuing necessary permits and permit conditions by the Department and permitting and cooperating agencies.

Throughout the permitting process, if the Department or a permitting or cooperating agency determines that per ORS 517.978(1)(b) “additional information is necessary to allow the permitting or cooperating agencies to make a determination regarding whether to issue or deny a permit or to issue the permit with conditions attached,” the Department or permitting or cooperating agencies may make requests for such additional information. Per ORS 517.978(2), the Department and permitting and cooperating agencies “may continue to review an application while in the process of requesting additional information.” Alternatively, the Department may notify the Applicant that the Department or a permitting or cooperating agency will suspend review of the application while awaiting the requested additional information. In either case, the Department shall conduct an additional public hearing under ORS 517.977 if the agencies determine that additional information is significant to the issuance or denial of a permit.

At the present time, the Department and permitting and cooperating agencies are aware of and have notified the Applicant of certain categories of information that the Applicant is required to provide in support of permit drafting. These include but are not limited to responses to “Category 3” and “Category 4” requests for additional information (Appendix A). In addition, per OAR Chapter 635, Division 415, the Applicant is required to provide a final and complete compensatory mitigation plan consistent with ODFW mitigation policies for sage-grouse and habitat mitigation. The final mitigation plan must include, but is not limited to, the mitigation mechanism(s) to be implemented, proposed habitat enhancement or restoration action, proposed conservation and durability measures to meet the mitigation goals, a copy of the conservation instrument securing the mitigation site, success criteria of the mitigation site and actions, monitoring plan, reporting schedule, and adaptive management actions if enhancement action success criteria fails to be met.

Each permitting agency will provide its draft permit and permit conditions or denial document to the Department within 225 days after the Department has received both a clean copy of the completed application and a complete environmental evaluation (which the Department is currently awaiting). Each permitting agency will also take final action to issue or deny applicable permits within one year of issuance of this Notice to Proceed. However, pursuant to ORS 517.978(2) and ORS 517.986, the Department may request that the applicant concur with the suspension of the application processing for a period of time in order to enable the Applicant to provide responses to requested additional information or “to allow the applicant to resolve issues having a bearing on, or necessary to any permitting agency’s decision or the department’s decision on whether to issue or deny a permit.” Because permitting agency decisions may rely on analysis or conditions provided by cooperating agencies, a processing suspension request may be based on information required by cooperating as well as permitting agencies.

If a processing suspension is agreed to for the Applicant to provide responses to requested additional information, then application processing will resume when the requesting agency and the Applicant agree that adequate responsive information has been provided. If a processing suspension is agreed to for the Applicant to otherwise resolve issues pertaining to a permitting decision, the Applicant and the Department will agree on a defined period after which processing will resume. Failure to concur with a suspension of

application processing may require the Department or a permitting agency to issue a permit denial if the Department or a permitting agency either lacks information necessary to approve a permit or has received information with insufficient time to properly analyze and incorporate the information into a permit approval by the statutory deadline.

If you have any questions or would like to schedule a meeting to discuss this letter, please contact Dayne Doucet at 541-619-9713 or at dayne.doucet@dogami.oregon.gov.

Sincerely,

A handwritten signature in blue ink that reads "Sarah L. Lewis".

Sarah L. Lewis
Mineral Land Regulation & Reclamation (MLRR) Program Manager

Attachments:
Agency Comment Table

COMMENT CATEGORY DEFINITIONS

General guidelines provided for commenting on the completeness of the Consolidated Permit Application:

Category 1 - Required Content: Category 1 comments address major data gaps in the information provided. Are all of the elements required by individual agency permits and applicable statute ([ORS 517.971](#)) and rules ([OAR, 632-037-0045 to 0077](#)) present? For Permitting Agencies, is all necessary information *present* (not necessarily satisfactory) for agencies to draft permits that meet statutory requirements? For Cooperating Agencies, is all necessary information *present* (not necessarily satisfactory) for agencies to draft DOGAMI permit conditions that meet statutory requirements?

Category 2 - Document Completeness: Category 2 comments identify any issues with the completeness, consistency, or accuracy of the work as presented in the consolidated permit application. Are digital files useable, maps and figures clear and legible, and cross-referencing complete and accurate? Is the documentation of the work complete? Are the data, analyses, and plans presented in a manner that allows the reviewer to verify their accuracy and assess their purpose, effects, and suitability? Is the document free of substantive errors and contradictory or ambiguous statements? Are plans and procedures fully detailed?

Category 3 - Draft Permit Considerations: Category 3 comments are technical considerations that will have to be addressed as part of the permit but meet the Category 1 or 2 definitions required for completeness. Identified Category 3 issues may also include requirements for additional testing, analysis, monitoring, or documentation during mine development and/or operation. For example, there could be the need for monitoring plans during operations, data collection requirements during mine plan changes, identified data gaps filled when new geologic materials are accessible, etc.

Category 4 - Best Practices: Category 4 comments are identified issues with the clarity and presentation of the information in the baseline reports and application. This can include substantive and non-substantive errors. Does the application and contained baseline reports and other technical information conform to best (or standard) current practices for presentation of information and usability? Does the electronic format conform to required federal standards? Is the document presentation clear and transparent?

COMMENT STATUS DEFINITIONS

Status A - Resolved

Status B - Not Resolved

Status C - Preliminarily Resolved: Status C comments are comments that can be resolved through the use of a permit condition.

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|-------------------------|------------------|---|--|
| C | 90 | DEQ | 3 Baseline Data Reports | 3 | Geochemistry Baseline Geochemistry Section 7.4 | <p>Comment: Baseline Geochemistry Section 7.4 Cemented Rock Fill (CRF) – as determined by the geochemical testing results at section 000.000, a majority of the waste rock has potential to generate acid and leach metals. This section of the Geochemistry Baseline report proposes that 5% cement be added to waste rock to be used as backfill in the mine. However, Calico specifies 7% cement in CRF in 3.3.5.1 of the Consolidated Permit Application. There is no apparent resolution of this conflict and no geochemical assessment of it. Indeed, the does not seem to be any geochemical characterization of CRF as proposed. These conflicts cloud the assessment of existing conditions.</p> <p>This section also states that CRF made from waste rock would be placed only in locations above the water table. How will pH in the underground workings (inclusive of material in situ and all backfill materials) be best managed to prevent acid generation and the mobilization of metals?</p> <p>In Section 3.3.5 of the Consolidated Application it is stated that waste rock would be used as backfill “to extent possible”. In Section 4.6.2 of the Consolidated Application it is stated that “all 0.2 million tons of waste rock” would be added to the TSF. These contradictions need to be resolved – the proposed volumetric range of the TSF is 1.76 to 3.2 million tons, and the TSF volume is dedicated to the Grassy Mountain project. Does reconciling of the above mean that there is a total of 200,000 tons, only, of waste rock? Due to the potential for acid generation and leaching of metals, none of the waste rock should be placed in underground workings. These conflicts cloud the assessment of existing conditions.</p> <p>Proposed Resolution: (a) Determine if 5% or 7% cement will be added to waste rock, and make consistent in the CPA and the BDR. (b) Explain how pH in the underground workings will be best managed to prevent acid generation and the mobilization of metals. (c) Clarify how waste rock will be disposed of, and make consistent throughout the CPA.</p> |

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| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|-------------------------|------------------|---------------|--|
| B | 96 | DEQ | 3 Baseline Data Reports | 3 | Geochemistry | <p>Comment: Assumptions that cement will encapsulate the potentially toxic and acidic waste rock. The cement in the CRF may buffer acidic nature of rock, but there should be explicit analysis of this in a “pH, Waste Rock and Tailings Facility Management Plan” to guarantee, not assume that Acid Generation is effectively mitigated. This Plan must also consider and incorporate pertinent DEQ Solid Waste Program requirements relative to CRF and basalt aggregate rock fill (RF) and CRF as backfill at all levels of the mine.</p> <p>Proposed Resolution: Provide a pH, Waste Rock and Tailings Facility Management Plan, including an analysis on how effectively cement would encapsulate the potentially toxic and acidic waste rock. Incorporate pertinent DEQ Solid Waste Program requirements relative to CRF and basalt aggregate rock fill (RF) and CRF as backfill at all levels of the mine</p> |
| C | 99 | DEQ | 3 Baseline Data Reports | 3 | Geochemistry | <p>Comment: Lime amendment is proposed for the tailings and waste rock going to the TSF, but only one sample of amended tailings was subject to geochemical testing.</p> <p>Proposed Resolution: Provide additional geochemical test results of amended tailings to ensure amendments are adequate to prevent acid generation within the TSF</p> |
| C | 108 | DEQ | 3 Baseline Data Reports | 3 | Groundwater | <p>Comment: No facility is proposed to provide water storage generated during pumping of wells and dewatering of mine. Where will the water go when not needed for production? (such as when F352 decline is being constructed) Discharge will not be allowed without a discharge permit. The TSF facility is not a water storage facility.</p> <p>Proposed Resolution: Explain how water generated during pumping of well and dewatering of the mine will be managed and stored. If excess water is anticipated and water discharge is planned, apply for appropriate discharge permit e.g. NPDES</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|------------------------------------|------------------|---|--|
| B | 110 | DEQ | Reclamation and Financial Security | 3 | Appendix J (starts on pdf page 1739) | <p>Comment: The total estimated amount for remediation does not include all the elements required under OAR 340-043-0025. Examples:</p> <ul style="list-style-type: none"> - There is no mention of a “credible accident” or costs to address this. - The cost for reclaiming (capping) the tailings disposal facility is estimated to be \$1.331 million (pdf page 1749). According to section 4.7.1 (main portion of application), capping elements include a liner bedding layer, geomembrane, a drainage layer (12-18 inches), and a growth medium layer (12-24 inches). The Appendix J cost estimate includes \$423,174 for regrading and \$575,963 for “cover and growth media” consisting of 159,397 cubic yards. This cover and growth media volume over a 99-acre TSF comes out to a 1-foot thick cover layer. The other components, including the geomembrane, are not clearly included. Also, EPA guidance referred to in Div 43 rules requires a composite cap, consisting of a flexible membrane liner and a low-permeability soil liner. The proposed design does not include a composite cap. <p>The cost estimate does not include post-closure groundwater monitoring and other site maintenance activities, which likely will be required for a minimum of 30 years or more following closure. This underestimate of reclamation costs would result in underfunding of the required financial assurance.</p> <p>Proposed Resolution: Provide a comprehensive cost estimate, including all items, with unit costs and quantities for each item.</p> |
| B | 111 | DEQ | Reclamation and Financial Security | 3 | Appendix L (entirety); Section 1 Div. 37 Permit Application; Appendix J (starts on pdf page 1739) | <p>Comment: OAR 340-043-0025 requires that those persons or entities who control the permittee assume liability for environmental injuries, remediation expenses, and penalties. Instituting such liabilities are to assure continuing accountability.</p> <p>Proposed Resolution: Provide a comprehensive response to the entirety of <u>G224 satisfactory to the Environmental Quality Commission</u></p> |
| B | 112 | DEQ | Reclamation and Financial Security | 3 | Appendix J (Reclamation Plan) | <p>Comment: The reclamation cost estimate does not include certain elements (e.g., a credible accident, most of the TSF cap components, post-closure groundwater monitoring).</p> <p>Proposed Resolution: Provide a comprehensive cost estimate, including all items, with unit costs and quantities for each item.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|------------------------------------|------------------|--|---|
| C | 113 | DEQ | Reclamation and Financial Security | 3 | Appendix C, Sections 6.9.2, p. 26; 6.9.3, p. 27 "dissipation aprons" | <p>Comment: OAR 340-043-0090(1) requires restoration of the natural drainage network to the maximum extent practicable, upon facility closure. There is insufficient detail to assess the adequacy of natural drainage restoration and reconnection.</p> <p>Proposed Resolution: Provide more detail, beyond an outwash apron, on the natural drainage channel reconnections and restoration, in description, maps and sections including restoration planting plans.</p> |
| B | 114 | DEQ | Reclamation and Financial Security | 3 | Appendix J (Reclamation Cost estimate)/pdf pgs 1741 and 1789 | <p>Comment: Although OAR 340-043-0160 says DEQ may continue its permit for 30 years, we point out that OAR 340-095-0080(2) specifies a post-closure period of 30 years. Alternatively, ORS 517.987 stipulates that reclamation bonding required to cover the actual costs of reclamation shall not be limited. Section 4.3 of the permit application states that the applicant anticipates that groundwater monitoring will be conducted for only five years. The closure and post-closure cost estimate in Appendix J lists "reclamation monitoring" costs and "ground and surface water monitoring" costs on pdf page 1741. The "ground and surface water monitoring" costs is shown as \$0. "Reclamation monitoring" is broken down on pdf page 1789. Water quality monitoring is a line item, but the cost is again shown as \$0.</p> <p>Proposed Resolution: Revise application to include this information.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|------------------------------------|------------------|--------------------------------------|--|
| B | 115 | DEQ | Reclamation and Financial Security | 3 | Appendix J (starts on pdf page 1739) | <p>Comment: - The cost for reclaiming (capping) the tailings disposal facility is estimated to be \$1.331 million (pdf page 1749). According to section 4.7.1 (main portion of application), capping elements include a liner bedding layer, geomembrane, a drainage layer (12-18 inches), and a growth medium layer (12-24 inches). The Appendix J cost estimate includes \$423,174 for regrading and \$575,963 for “cover and growth media” consisting of 159,397 cubic yards. This volume over a 99-acre TSF comes out to a 1-foot thick cover layer. The other components, including the geomembrane, are not included.</p> <p>The EPA guidance document (EPA/530-SW-89-047) recommends that the final cover include a composite that includes a flexible membrane liner and a low-permeability soil cover. The cover proposed in the application includes a geomembrane but not a low-permeability soil layer. As discussed above, this guidance is referred to in OAR 340-043-0150(5).</p> <p>This underestimate of reclamation costs would result in underfunding of the required financial assurance.</p> <p>More detail is needed in the post-closure cost estimate in Appendix J, before we can evaluate the cost estimates properly.</p> <p>Proposed Resolution: Modify the design and cost estimate to include: - a composite cap, in accordance with EPA guidance ((EPA/530-SW-89-047) - 30 years of post-closure groundwater monitoring Provide a comprehensive cost estimate, including all items, with unit costs and quantities for each item.</p> |
| C | 117 | DOGAMI | Reclamation and Financial Security | 3 | | <p>Comment: OAR requires procedures for decommissioning ore storage sites</p> <p>Proposed Resolution: Provide detailed plan for decommissioning/reclaiming ore storage site.</p> |
| B | 121 | DOGAMI | Reclamation and Financial Security | 3 | Appendix J | <p>Comment: Reclamation cost estimate does not provide sufficient information linking reclamation plan tasks with cost estimates.</p> |

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|----------------------------|-----------|--------|------------------------------------|------------------|--|---|
| B | 128 | DOGAMI | Reclamation and Financial Security | 3 | Appendix V; Section 4c; pdf pg 15 | <p>Comment: According to Figure 4/5 (pdf pg 26)37, reclamation will include cut slopes but Section 4c (pg 15) states final excavated slopes will not be constructed, nor a continuous slope constructed.</p> <p>Proposed Resolution: Check “yes” on final excavated slopes and constructed continuous slope in 4c. Fill out the average dimensions of the benching to match 1.5</p> |
| B | 131 | DOGAMI | Reclamation and Financial Security | 3 | Appendix V, Section 4i; pdf pg 18 | <p>Comment: Are the continuous excavated slopes proposed to have soils spread and be revegetated?</p> <p>Proposed Resolution: Plan to revegetate the continuous excavated slopes</p> |
| C | 133 | DOGAMI | Reclamation and Financial Security | 4 | Appendix V, Section 4k; pdf pg 18 | <p>Comment: The plan to revegetate with a BLM-approved seed mixture and planted in the fall or per BLM recommendations is insufficient</p> <p>Proposed Resolution: Fully detail planned planting methods</p> |
| C | 139 | DOGAMI | Reclamation and Financial Security | 3 | Appendix J, CAP and associated appendices. | <p>Comment: The SRCE reclamation security calculations cannot be cross referenced with the plans in the CPA and associated appendices, and those plans do not detail reclamation tasks. The SRCE Excel spread sheets need to include specific references to the CPA and associated appendices to ensure the data use in the SRCE reclamation estimate is accurate and consistent with plans as they are described in the application documents. For example, Appendix J pages 44-47 should include a foot note referencing Appendix AD (Well Field Design Report) and any or documents that identify wells (exploration, production, and/or monitoring) that will need to be reclaimed.</p> <p>Proposed Resolution: Include references in the SRCE Excel spread sheets that allow the details of those calculations to be cross referenced with the plans in the CPA and associated appendices.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|------------------------------------|------------------|----------------------------|---|
| B | 140 | DOGAMI | Reclamation and Financial Security | 3 | Section 4, Appendix J | <p>Comment: The reclamation plan does not include sufficient detail to allow DOGAMI to determine reclamation steps and tasks in the event of default by the operator. DOGAMI needs to be able to assess the costs associated with decommissioning the entire facility starting from a fully operating state.</p> <p>Proposed Resolution: Include a detailed plan listing steps required to decommission all mine facilities from operating conditions and associated costs with clear cross referencing between task lists and cost spreadsheet. wastes and equipment present on site during normal operations”</p> |
| B | 142 | DOGAMI | Reclamation and Financial Security | 3 | Appendix J, Page 2 | <p>Comment: The SRCE reclamation security estimate will need to include reclaiming the Waste Rock Dump should the Company fail to conduct that reclamation. It will also need to include revegetation/stabilization.</p> <p>Proposed Resolution: Include waste rock dump reclamation in SRCE calculations.</p> |
| B | 143 | DOGAMI | Reclamation and Financial Security | 3 | Appendix J, Page 2 | <p>Comment: The SRCE reclamation security estimate will need to include removing underground pipe should the Company fail to conduct that reclamation. Pipe is generally not considered clean fill and cannot be left buried in the ground without written authorization from DEQ.</p> <p>Proposed Resolution: Include removal of buried pipe in SRCE calculations.</p> |
| B | 144 | DOGAMI | Reclamation and Financial Security | 3 | Appendix J, Page 2 & 44-47 | <p>Comment: Reclamation security calculations need to include all wells, including water supply and monitoring wells. SRCE well abandonment calculations only appear to include 4 wells.</p> <p>Proposed Resolution: In ALL wells in SRCE Calculations.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|------------------------------------|------------------|--|--|
| B | 145 | DOGAMI | Reclamation and Financial Security | 3 | CPA Sec. 4.1, Page 222-223 | <p>Comment: Growth media accounting appears to show an excess of 140,629 cubic yards of growth media yet growth media is not proposed to be used in reclaiming all facilities. Note the 100% of the disturbed ground will need to be reclaimed with a minimum depth of growth media to achieve the reclamation required goals. If there is excess growth media after 100% of disturbed ground is covered during reclamation where will that excess materials be placed?</p> <p>Proposed Resolution: A more detailed accounting of salvaged growth media will need to be submitted demonstrating 100% cover of disturbed areas utilizing 100% of the available materials.</p> |
| B | 146 | DOGAMI | Reclamation and Financial Security | 3 | Appendix J | <p>Comment: The costs of implementing the noxious weed and invasive plant control measures do not appear to be included in the reclamation cost estimate.</p> <p>Proposed Resolution: Include the costs of implementing the noxious weed and invasive plant control plan in the reclamation cost estimate.</p> |
| B | 149 | DOGAMI | Reclamation and Financial Security | 4 | Appendix J | <p>Comment: In the SRCE reclamation security estimate all facility descriptions should include the ID Code in parenthesis if there is not a separate ID Code column in the relevant table. This allows facility line items to be cross referenced with facilities show on SRCE maps. If a line item captures multiple facilities, then all of the facility ID Codes captured under line item should be acknowledged in the parenthesis following the facility description.</p> <p>Proposed Resolution: In SRCE, include ID codes in parenthesis for all facility descriptions for which there is no ID Code column.</p> |
| C | 156 | DEQ | Tailings and Waste Rock | 3 | Consolidated Permit Application, Section 3.3.13, pg. 182-196 | <p>Comment: The valley dam design is subject to overtopping by flood waters. The concrete drainage diversion structure is subject to failure with time, allowing the watershed's drainage to run through the TSF. Siting of the TSF in a valley may not be as protective of the environment as other design alternatives because of the increased chance of failure from stormwater events over the extremely long post-closure period.</p> <p>Proposed Resolution: Provide additional comment on the consideration of alternative sites for the TSF, including a previous location sited on private land, for review by DOGAMI per OAR 632-037-0075</p> |

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| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|-------------------------|------------------|---|---|
| C | 158 | DEQ | Tailings and Waste Rock | 3 | Consolidated Permit Application | Comment: Surface impoundment liner system requires same liner system as required for the TSF. |
| C | 159 | DEQ | Tailings and Waste Rock | 3 | Appendix C, Section, 6.9.3, p. 27 | <p>Comment: OAR 340-043-0090(1) and (2) is concerned with designs and controls that will be needed to prevent endangerment of the Tailings Storage Facility from run-on and run-off surface waters. As a “water balance” facility intended to exist on the landscape in perpetuity, it is questionable that constructed, concrete stormwater diversion channels, though shaped and sized for significant storm events, will last forever. Subsection two (2) of the rule requires all placed mined materials be protected from surface water and precipitation events that will cause erosion and sedimentation of the TSF growth media cap. The comment here is that the soil cap, though planted, rests atop the required impervious geomembrane sheet cover. Erosion potential here is real. There is no numeric here expressed in rule: the growth media cap cannot be eroded.</p> <p>Proposed Resolution: Suggest design reassessment or analysis of: stormwater system functional permanency that will protect the TSF from water incursion; protectiveness of closure cap and prevention of erosion/sedimentation.</p> |
| B | 160 | DEQ | Tailings and Waste Rock | 3 | Consolidated Permit Application, Section 3.3.13.3 | <p>Comment: The supernatant pool and reclaim pond must be covered in accordance with OAR 340-043-0110(1) to positively exclude wildlife. If residual cyanide levels and acid-water concentrations are low enough not to pose a threat to wildlife, Calico may seek a waiver of the positive exclusion requirements from ODFW.</p> <p>Cross-reference here is to ODFW’s OAR 635-420-0040 which provides details on TSF covers and exclusions.</p> <p>Proposed Resolution: Provide plan for achieving compliance with requirements stated in comment</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|-------------------------|------------------|---|---|
| C | 161 | DEQ | Tailings and Waste Rock | 3 | Appendix C (Tailings Design Report)/Drawings C- 15, C-16, D-2 | <p>Comment: The proposed “leak detection system” consists of leachate detection pipes beneath the main leachate collection pipe headers. The composite liner is separated at these locations so that the top (plastic) liner can underlie the collection pipe while the bottom (clay) liner can underlie the detection pipe. There is therefore no composite liner at these critical locations.</p> <p>Proposed Resolution: Revise the design to include a true leak detection system beneath the entire primary liner, and line this detection system with a secondary liner.</p> |
| C | 162 | DEQ | Tailings and Waste Rock | 3 | Appendix C | <p>Comment: The TSF requires double liner, including a composite liner. The environment begins at the bottom liner. Conveyances require secondary containment and leak detection. The applicant proposes a composite liner with leak detection under that. If there’s no liner under the leak detection, then any leachate reaching that level is deemed to have escaped the contained system and will enter waters of the state (groundwater). This would lead to violation notices and penalties. This is why the rule specifically requires a double liner – to prevent impacts to the environment.</p> <p>Proposed Resolution: Revise the TSF to appropriate address liner requirements</p> |

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|----------------------------|-----------|--------|-------------------------|------------------|--|--|
| B | 163 | DEQ | Tailings and Waste Rock | 3 | Section 3.1, page 106, Section 3.3.2, page 132, Section 3.3.4, page 139 and 140, Appendix C, Section 2.3, page 7, and Section 7, page 27 | <p>Comment: Waste rock volume and storage issues. Throughout much of the CPA, the waste rock volume appears to be consistently estimated to be 200,000 tons and the Waste Rock Dump (WRD) is designed to hold that volume. However, Appendix S of the CPA (Stability Analysis of the Portal Design) states that <i>“The portal will have a waste rock excavation volume of 2,283,146 tons.”</i></p> <p>Proposed Resolution: Applicant should provide information regarding this apparent large discrepancy in waste rock volume and the effect on the waste rock dump size and volume. Applicant should provide information showing how the waste rock volume was calculated. Applicant should provide information concerning where and how the additional 2,000,000 tons of waste rock material be stored, how it will be treated to preclude acid generation and metals leaching, and the ultimate disposition of the material.</p> |
| B | 164 | DEQ | Tailings and Waste Rock | 3 | Section 2.5, page 42, Section 3.3.5, page 141 | <p>Comment: Rock Fill (RF) and Cemented Rock Fill (CRF) issues. Section 2.5 states that RF will include only basalt borrow material and that CRF could include waste rock if placed above the saturated zone. However, Section 3.3.5 states that CRF will be used to backfill primary drifts and that RF will be used to backfill secondary drifts, apparently, regardless of saturated conditions. This section further states that <i>“To the extent possible, the waste rock from underground operations will be used for CRF and rock from the borrow pit will be used for RF.”</i></p> <p>Proposed Resolution: These sections contradict each other and should be further elucidated by the Applicant. CRF with waste rock should not be placed below saturated conditions. Applicant should provide details regarding how the metals leaching conditions and the effectiveness of the cement buffering will be monitored after placement of RF and CRF and that acid generation and metals leaching does not occur. Applicant should also provide information concerning the steps that will be taken to preclude the preferential saturation of the backfill material versus the tighter native material.</p> |

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|----------------------------|-----------|--------|-------------------------|------------------|---|--|
| C | 165 | DEQ | Tailings and Waste Rock | 3 | Section 3.3.5.1, page 141, Section 2.5, page 42 | <p>Comment: Backfill Plant issues. Section 3.3.5.1 states the following: “A plant to produce the CRF will be built as part of the Project infrastructure. The backfill plant will be located near the underground mine portal and will produce the CRF. No test work has been done for CRF at this time, so a standard mix with seven percent cement will be used pending further study.”</p> <p>Section 2.5 states that “an estimated mix of five percent cement will be added to neutralize the waste rock material.”</p> <p>Proposed Resolution : The Applicant should at a minimum include details concerning the further testing that will occur to determine the mixture needed to eliminate acid generation and metals leaching from the CRF and impacting the environment.</p> <p>The Applicant should provide at a minimum the conceptual design and operation of the Backfill Plant. The current CPA does not include any information concerning this facility.</p> <p>The Applicant should be consistent in the cement mix percentage in the CPA and explain the existing contradiction in the cement percentages.</p> <p>The Applicant should provide the information and justification for the assumed cement mix percentage.</p> |
| C | 167 | DEQ | Tailings and Waste Rock | 3 | Consolidated Permit Application, Sections 3.3.5, pg. 141 and 4.6.2, pg. 227 | <p>Comment: Acid generating waste rock must be stored in a lined cell. Cemented rock fill (CRF) is subject to cracking and degradation through erosion, therefore is not a viable option for backfilling in the mine shafts. [340-043-0140]</p> <p>Section 3.3.5 of the consolidated application states that waste rock will be used to backfill the mine to “extent possible.” Section 4.6.2 of the same application states “All 0.2 million tons of waste rock will be removed from the waste rock storage area and placed on the TSF.” Most of the waste rock from the mine is expected to be acid generating and should be placed in a secure surface location and not be used as mine backfill.</p> <p>Proposed Resolution: Correct conflicting statements in consolidated Application. Prepare Tailings and Waste rock management plan during permitting phase.</p> |

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| C | 168 | DEQ | Tailings and Waste Rock | 3 | Section 4.7.1/pdf page 245 | <p>Comment: The EPA guidance document (EPA/530-SW-89-047) recommends that the final cover include a composite that includes a flexible membrane liner and a low-permeability soil cover. The cover proposed in the application includes a geomembrane but not a low-permeability soil layer.</p> <p>Proposed Resolution: Revise the cap design to include a composite cover.</p> |
| B | 174 | DOGAMI | Tailings and Waste Rock | 3 | 4.6.2, pg. 227 | <p>Comment: It states that 200,000 tons of WR will be placed on the TSF along w/ lime amendment. There needs to be a description of pH testing following amendment and potential for metals leaching prior to placement in the TSF.</p> <p>Proposed Resolution: Provide a fully detailed plan for sampling and analysis of the WR prior to placement in the TSF.</p> |
| B | 175 | DOGAMI | Tailings and Waste Rock | 3 | 4.7.1.5, pg. 231 | <p>Comment: It states: "As part of the design, the converted E-Cell will be covered with six inches of growth media and seeded." Because this is the former reclaim pond which will be double lined how will the pond/E-cell ultimately be reclaimed?</p> <p>Proposed Resolution: Fully detail how the E-Cell will be finally reclaimed.</p> |
| B | 179 | ODFW | Tailings and Waste Rock | 3 | Page 247; Section 5.2 | <p>Comment: The alternatives analysis does not adequately evaluate alternatives that could avoid or minimize impacts to wildlife or other environmental impacts and allow ODFW to evaluate the comparative merits of each alternative. For example, the alternatives analysis does not include any evaluation of an alternative without the tailings facility. This should be evaluated per Division 37 requirement.</p> <p>Proposed Resolution: Evaluate additional alternatives to avoid or minimize adverse impacts environmental impacts</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| B | 180 | DEQ | Water Resources | 3 | Groundwater Quality Protection: Section 3.3.9, pg. 146 | <p>Comment: The Groundwater Baseline study is nearing completion and the permitting application process is underway. However, the groundwater monitoring network will need to be further developed as the site activities increase. Additional wells will be required to adequately monitor the site during development and post-closure.</p> <p>Proposed Resolution: Develop groundwater monitoring plan during permitting and adapt it throughout project phases</p> |
| C | 184 | DEQ | Water Resources | 3 | Groundwater Quality Protection 2.8 Groundwater, Volume II, page 66 | <p>Comment: The CPA indicates that low hydraulic conductivity in the vicinity of the project is anticipated to significantly restrict groundwater flow into the mine workings. There is no discussion indication of how the decline, which is likely outside the highly silicified zone, will contribute water to the mine workings.</p> <p>Proposed Resolution: Address during permitting phase.</p> |
| C | 188 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 3; 1.2 | <p>Comment: Concerns about permitting the basalt quarry stormwater discharge under the 1200-Z or Site-wide surface water management plan.</p> <p>Proposed Resolution: Eliminate stormwater discharge from the basalt quarry floor.</p> |
| C | 189 | DEQ | Water Resources | 4 | Appendix Y SWPCP pg. 6; 1.2.3. | <p>Comment: Non-contact water runoff. Does this refer to non-contact stormwater runoff?</p> <p>Proposed Resolution: Likely this is referring to non-contact stormwater, but if there is other non-contact water discharging it is not an authorized non-stormwater discharge under the 1200-Z</p> |
| C | 190 | DEQ | Water Resources | 4 | Appendix Y SWPCP pg. 9; 2.1.1 | <p>Comment: Remove reference to sanitary sewer.</p> <p>Proposed Resolution: Confirm wash water is authorized to discharge into septic system.</p> |

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|----------------------------|-----------|--------|-----------------|------------------|-----------------------------------|--|
| C | 192 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 11; 2.2 | <p>Comment: May need a 1200-A for this stormwater discharge. The 1200-Z covers active mining area related to mining sector, not SIC category 14, aggregate mining which is covered in OR under the 1200-A. Cannot include 1200-A conditions in a 1200-Z permit.</p> <p>Proposed Resolution: Consult with DOGAMI; if it is a zero-discharge area then coverage under the 1200-A for basalt mining may not be required. DEQ will consider if the basalt mining operation may be covered under the 1200-Z, by consulting with EPA</p> |
| C | 193 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg.12; 2.3.1 | <p>Comment: The 1200-Z covers construction related earth-disturbing activities for the purpose of mine site preparation, including right-of-way and staging areas for buildings and roads.</p> <p>Proposed Resolution: Concerned about the borrow basalt pit stormwater discharge. Resolutions suggested in earlier comments.</p> |
| C | 194 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 13; 2.3.2 | <p>Comment: Soil and sediment stockpiles does not match required language in Schedule E.G</p> <p>Proposed Resolution: Temporary covers must be used and plan must be prescriptive about what type. Stormwater run-on must be diverted, not just minimized</p> |
| C | 195 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 13; 2.3.2 | <p>Comment: Dust suppressants must be approved prior to use. Temporary stabilization must state 14 days. Final stabilization must expand to requirement in permit.</p> <p>Proposed Resolution: Include specifics on any intended use of dust suppressants other than groundwater. Temporary stabilization language revised to meet Schedule E.G.4.1.9, with caveats for arid climate. The language pertaining to final stabilization must be expanded too</p> |
| C | 196 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 13; 2.3.3 | <p>Comment: Conveyance channels must be designed to avoid unstabilized areas and reduce erosion.</p> <p>Proposed Resolution: Provide specifics on stormwater conveyance control measures to be used in roadside ditches and staging areas.</p> |

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|----------------------------|-----------|--------|-----------------|------------------|-------------------------------------|---|
| C | 197 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 15; 2.3.5 | <p>Comment: The SWPCP must specify inspection frequency.</p> <p>Proposed Resolution: Schedule E.G.4.4.1 requires the SWPCP specify an inspection frequency of either once every 7 days or once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or more; If you choose to inspect once every 14 days, you must have a method for measuring rainfall amount on site (either rain gauge or representative weather station).</p> |
| C | 198 | DEQ | Water Resources | 4 | Appendix Y SWPCP pg. 18; 3.1 | <p>Comment: Clarify statement: "All discharge points will be sampled inspected monthly."</p> <p>Proposed Resolution: Thinking this should read: "All discharge points will be sampled inspected monthly."</p> |
| C | 199 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 19; Table 7 | <p>Comment: Sector specific monitoring applies to stormwater which is in contact with waste rock and overburden piles. DEQ may require additional monitoring.</p> <p>Proposed Resolution: Allow the permit assignment letter to identify monitoring requirements and do not include these specifics in the plan.</p> |
| C | 200 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 20; 3.3 | <p>Comment: Impairments will likely be based on 2018/2020 Integrated Report.</p> <p>Proposed Resolution: Let the 1200-Z assignment letter identify impairment monitoring requirements and do not include these specifics in the plan.</p> |
| C | 202 | DEQ | Water Resources | 4 | Appendix Y SWPCP pg. 22; 3.8.2 | <p>Comment: Monitoring referred to as Table 5. This is a correct reference to the permit not to the SWPCP, which includes Table 7 for monitoring parameters.</p> <p>Proposed Resolution: Be clear on reference of Table and associated documents.</p> |
| C | 203 | DEQ | Water Resources | 4 | Appendix Y SWPCP pg. 23; 4.1 | <p>Comment: Plan incorrectly identifies annual submission of discharge monitoring reports.</p> <p>Proposed Resolution: Discharge monitoring reports are due quarterly.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|-----------------|------------------|--|---|
| C | 204 | DEQ | Water Resources | 3 | Appendix Y SWPCP figures and site maps | <p>Comment: Lack all BMPs required during construction and do not contain required elements which must be included on site maps per 1200-Z</p> <p>Proposed Resolution: See Schedule A.7.b.i for site map requirements for industrial activity. Other maps must show construction controls during land disturbance similar to what would be submitted for a 1200-C. An erosion and sediment control plan</p> |
| C | 205 | DEQ | Water Resources | 3 | Groundwater Quality Protection 3.3.9.1 Dewatering, page 150 | <p>Comment: The discussion of dewatering estimates from the 3-dimensional numeric model estimate dewatering from 4 wells pumping 5 gpm for a total of 20 gpm in the steady-state model. And in the transient model by placing 4 wells around the perimeter and one well in the center of the project pumping at 480 gpm for 70 days and 57.5 gpm for the remaining lifetime of the mine. Regardless of the accuracy of the model, the facility must be able to contain and/or utilize all of the water being removed. The CPA does not appear to address specifics about containment of water that will be removed when the decline is being built. The CPA must provide specifications for the containment pond that will be needed when water cannot be utilized in processing.</p> <p>Proposed Resolution: Provide design for collection pond.</p> |
| C | 206 | DEQ | Water Resources | 3 | Groundwater Quality Protection 3.3.9.1 Dewatering, pg. 148 | <p>Comment: There appears to be a large amount of uncertainty regarding the amount of groundwater draw down and its possible effects on surface water springs in the proposed mine area. A plan for monitoring impacts to spring flow and minimizing/mitigating these impacts is needed.</p> <p>Proposed Resolution:</p> |
| C | 207 | DEQ | Water Resources | 3 | Appendix C TSF Design Section 3.3.13.3, pg. 188 | <p>Comment: The application documents discuss reuse of supernatant and water collected in the reclaim pond, but no discussion was made of the treatment or water quality standards that may be needed for this reuse or what applications would utilize reuse water.</p> <p>Proposed Resolution: Provide a discussion of each application that will utilize reclaimed water and the water quality standards needed for each intended use of these waste streams and identify the treatment methods anticipated to meet these standards.</p> |

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|----------------------------|-----------|--------|-----------------|------------------|--|--|
| C | 208 | DEQ | Water Resources | 3 | Appendix C TSF Design Section 3.3.12.11.4, pg. 180 | <p>Comment: The application document identifies a truck wash station but does not identify how the wastewater will be treated or managed.</p> <p>Proposed Resolution: Provide documentation of the treatment and management for all truck wash wastewater</p> |
| C | 209 | DEQ | Water Resources | 3 | Appendix C TSF Design Section 3.3.13.3, pg. 188 | <p>Comment: The application discusses piping reuse water back to the plant but no discussion of how these reuse pipes will be identified.</p> <p>Proposed Resolution: Provide documentation of how pipes carrying reused water will be recognized and how the facility will ensure no cross connections with potable water lines during construction and operation/maintenance of the facility.</p> |
| C | 211 | DEQ | Water Resources | 3 | Appendix E, Section 4.4/5.6, pp. 8 and 11 | <p>Comment: It is unclear whether or not SPCC rules would apply and require a site specific SPCC plan. Several of the petroleum storage tanks exceed the 1,320 gallon requirements.</p> <p>Proposed Resolution: Revise plan and provide clarity on volumes. Submit site specific SPCC, as necessary.</p> |
| B | 215 | DEQ | Water Resources | 3 | Drawing SW4 | <p>Comment: Culverts for roadways crossing the stormwater diversion are identified as 24". For a permanent structure, these are small and easily blocked by sluffing sediment, sage brush and other debris and blowing debris, thereby reducing the design protectivity of the TSF and increasing maintenance requirements.</p> <p>Proposed Resolution: Oversize the culverts, provide a maintenance schedule, or provide a redundant flow structure to ensure stormwater does not escape the diversion structure and erode the protective cover of the TSF cap and closure system</p> |
| B | 216 | DEQ | Water Resources | 3 | Drawing SW4 | <p>Comment: Culverts for roadways are identified as 24". For a permanent structure, these are small and easily blocked by sluffing sediment, sage brush and other debris.</p> <p>Proposed Resolution: Oversize the culverts, provide a maintenance schedule, or provide a redundant flow structure to ensure stormwater does not erode the protective cover and expose the waste rock</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|-----------------|------------------|---|---|
| C | 233 | OHA | Water Resources | 3 | Appendix AE: Water/Wastewater Design, Sheets C105&C106 | <p>Comment: Small portions of the setback areas within 100 feet of existing well #3 and proposed well #4 are outside the mine permit boundary.</p> <p>Proposed Resolution: Written documentation to be obtained from the Bureau of Land Management and submitted to OHA confirming that no existing or potential public health hazard are described in OAR 333-061-0050(2)(a)(E) will be allowed within 100 feet of the drinking water well sites.</p> |
| C | 234 | OHA | Water Resources | 3 | N/A | <p>Comment: Drinking water quality samples must be collected at regular intervals after the drinking water is constructed and the mine begins operations.</p> <p>Proposed Resolution: Mine operator to collect drinking water samples per schedules prescribed by OHA.</p> |
| B | 237 | WRD | Water Resources | 4 | Appendix B: Groundwater Vol. II Section 6 Page 78 | <p>Comment: From report: <i>“This flow direction is evident in both the shallow and deep potentiometric surfaces, a result that also supports a single aquifer system.”</i> Is this supported by data from a deeper potentiometric surface, in more than one well?</p> <p>Proposed Resolution: If there are not sufficient data to support this statement, list it as an unknown condition and acknowledge that more observations are necessary.</p> |
| B | 239 | WRD | Water Resources | 3 | 4.2.5 Page 9 | <p>Comment: Recommend the ability to measure shut-in artesian pressure for any flowing wells, including MALH 2275.</p> <p>Proposed Resolution: Shut in the wellhead, rather than letting flow.</p> |
| B | 243 | WRD | Water Resources | 4 | 4.4.9 Page 18 | <p>Comment: It is suggested that further development of Well 3 will result in much lower concentrations of harmful constituents for drinking water, possibly to within drinking water standards.</p> <p>Proposed Resolution: This may be a misleading hypothesis, especially considering all of the 15 wells sampled exceeded the MCL for arsenic, according to the Groundwater Baseline Data Report. Repeat this analysis considering the impact of levels above MCL in all wells.</p> |

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| B | 244 | WRD | Water Resources | 3 | 5.3.2 Page 24 | <p>Comment: Plan for well development and testing states “All nearby wells and springs will be monitored during the test...”, but no details given.</p> <p>Proposed Resolution: Provide a list of sites, and the schedule and method in which they will be monitored.</p> |
| B | 245 | WRD | Water Resources | 4 | 5.5.7 Page 31 | <p>Comment: In the third paragraph, “Well 4” is listed twice, pumping at two different rates. I believe the second instance is meant to be “Well 7”.</p> <p>Proposed Resolution: Resolve the inconsistency.</p> |
| C | 246 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Appendix Y SWPCP pg. 9 2.1.2, 2.1.5 | <p>Comment: Oil and Grease must be specific with control measures. Debris Control must be specific with control measures.</p> <p>Proposed Resolution: Narrative technology-based effluent limits must be prescriptive and call out what will be used on-site.</p> |
| C | 247 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Appendix Y SWPCP pg. 10; 2.1.7 | <p>Comment: It appears the site is required to prepare a Spill Prevention and Countermeasures Plan based on the liquid storage volumes in the Emergency Response Plan.</p> <p>Proposed Resolution: The spill prevention and response procedures are inadequate and an SPCC may be used and referenced to fulfil this section of the SWPCP. This section must include OR. Emergency Response System number and on-site contact.</p> |

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| B | 248 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | CPA, Petroleum-contaminated soils management plan: Section 2, pg. 4 | <p>Comment: No application or supporting materials received for an industrial solid waste landfill, which is referenced in the CPA documents.</p> <p>2 PROJECT DESCRIPTION Calico Resources USA Corp. (Calico) plans to construct, operate, reclaim, and close an underground mining and precious metal milling operation. In general, the proposed mining and precious metal processing operations will consist of an underground mine and ore processing facilities, including a conventional mill and tailings storage facility (TSF) and a waste rock storage area (WRSA), as well as other support facilities. The Project will include the following major components: - Ancillary facilities that include the following: haul, secondary, and exploration roads; truck workshop; warehouse; stormwater diversions; sediment control basins; reagent and fuel storage; storage and laydown yards; explosive magazines; fresh water storage; monitoring wells; meteorological station; an administration/security building; borrow areas; growth media stockpiles; a landfill; and solid and hazardous waste management facilities to manage wastes; and</p> <p>Proposed Resolution: Submit a permit application for an industrial solid waste landfill that complies with requirements in OAR 340-093 and 340-095, including:</p> <ul style="list-style-type: none"> · Permit application · Recommendation from local jurisdiction · Payment of fees · Site characterization report · Detailed plans and specifications · Written closure plan <p>Evidence of Financial Assurance</p> |
| C | 249 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | CPA-General | <p>Comment: It is unclear if the methods described for control of wastes and chemicals have considered all available, practicable and necessary technologies.</p> <p>Proposed Resolution: See specific comments in other sections. In addition to resolving specific findings in other sections, additional discussion and clarification expected to occur during the permitting phase.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|--|------------------|--|---|
| C | 255 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Appendix E, Section 6.3.7, pg. 19 | <p>Comment: Waste from spills or releases needs incident-by-incident approval prior to stockpiling onsite.</p> <p>Proposed Resolution: Revised and add language that any stockpiling or onsite storage of waste from spills or releases must be coordinated in advance with the SOSC or FOSC.</p> |
| C | 266 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Appendix E, Section 8, first bullet, pg. 23 | <p>Comment: Oregon DEQ, state and other local public safety agencies receive notification through OERS operated by the Oregon Office of Emergency Management at the same number.</p> <p>Proposed Resolution: Revise plan in response to comment.</p> |
| C | 268 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Appendix E, Section 8, 2 nd paragraph, pg. 24 | <p>Comment: It is unclear what “special authority” for emergency operations is referring to in this context. It is anticipated that if an incident required significant response that it would be managed under an incident command system (ICS) structure for both internal and external responses.</p> <p>Proposed Resolution: Revise plan in response to comment.</p> |
| C | 269 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Appendix E, Section 8.1, pg. 24 | <p>Comment: Similar to above comment, while site specific forms and checklists would be helpful, it is anticipated that emergency response would be conducted under an ICS response framework and associated documentation.</p> <p>Proposed Resolution: Revise plan in response to comment.</p> |
| C | 270 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Consolidated Permit Application, Section 3.4.2, Page #199 and 3.6.6, Page #217 | <p>Comment: Section 3.4.2 first paragraph, states that the site is expected to be a CESQG (<100kg/month HW generation). Whereas; section 3.6.6 states that the facility anticipates they will be a SQG (>100kg – <1000kg /month of HW generation)</p> <p>Proposed Resolution: Reevaluate the hazardous waste generation and revise either section to state the same. Note that the Bevill Exclusion does not exempt Mineral Processing (significant physical/chemical processes) or waste generated from laboratory or maintenance activities)</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| C | 271 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Consolidated Permit Application, Section 3.4.2, Page #199 | <p>Comment: This section does not stipulate what parts of RCRA (40 CFR) or State OAR's will be followed.</p> <p>Proposed Resolution: Suggest adding "Calico will adhere to Federal and State hazardous waste regulations (i.e. 40 CFR 260-279 and OAR 340-100 through OAR 340-142 as applicable. For example: Second paragraph should reference "Management of Used Oil" 40 CFR 279 and OAR 340-111</p> |
| C | 272 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Consolidated Permit Application, Section 3.6.6, Page #217. | <p>Comment: This section can be confusing as it combines disposal and management of both solid and hazardous wastes.</p> <p>Proposed Resolution: Recommend separating disposal and management options. It is important to understand that each waste material has different management and disposal methods that are regulated by both Federal and State. Example: Utilize headers</p> <p>Non-hazardous waste. (General garbage etc.)</p> <p>Hazardous waste (Regulated spent solvents, spent acids, waste paints, unpunctured aerosols etc.)</p> <p>Used Oil (Includes used motor oil, hydraulic and cutting fluids undrained oil filters etc.)</p> <p>Universal Waste (Includes fluorescent lamps, mercury containing equipment, NiCd , Li batteries, Lead Acid Batteries, mercury containing thermostats.)</p> <p>Note: Lead Acid batteries may be managed under 40 CFR Subpart G 266.</p> |

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| C | 274 | DEQ | Hazardous Materials, Safety, Accident Prevention, and Emergency Response | 3 | Consolidated Permit Application, Section 3.3, pp. 113-196 | <p>Comment: Multiple processes in the milling operation generate precipitates and waste materials, both liquids and solids. The CPA should define the characteristics of these wastes and their disposition. For instance, the carbon-in-leach process includes sulfide precipitation. What are the characteristics of the precipitate and how is it handled and disposed? Similarly, what are the characteristics of the precipitates generated during the cyanide detoxification process and how are they disposed? What are the characteristics of the waste carbon fines generated from the carbon regeneration process that cannot be re-used in the elution process and how are they handled?</p> <p>Proposed Resolution: Applicant should provide details concerning the handling and disposal/ treatment of wastes generated during the chemical mining processes.</p> |
| C | 278 | DEQ | Project Description | 3 | Appendix Y SWPCP pg. 9; 2.1.4 | <p>Comment: Erosion and sediment control cites OAR. Must include maintenance schedule from Schedule E.</p> <p>Proposed Resolution: Provide OAR specific reference. Include timeframes from Schedule E.G.4.1.2.</p> |
| C | 279 | DEQ | Project Description | 3 | Appendix Y SWPCP pg. 10; 2.1.6.1 | <p>Comment: Housekeeping must include a maintenance schedule.</p> <p>Proposed Resolution: Provide a designated timeframe for outlets maintenance</p> |
| C | 280 | DEQ | Project Description | 3 | Appendix Y SWPCP pg. 10; 2.1.8 | <p>Comment: Section references repair and maintenance of BMPs at all times.</p> <p>Proposed Resolution: Must include reasonable maintenance schedule. Will it be daily to ensure all BMPs are in working order at all times? Must incorporate Schedule E.G.4.1.3, 4, and 6.</p> |
| B | 297 | DEQ | Wildlife and Vegetation | 3 | Consolidated Application, Section 3.3.13.3, pg.188 | <p>Comment: Insufficient information to determine toxicity and impacts of chemical processing solutions and wastewaters on wildlife</p> <p>Proposed Resolution: Please submit information on chemical toxicity on wildlife, including concentrations, exposure pathways, and other information necessary for ODEQ and ODFW to determine toxicity effects on wildlife.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| C | 298 | DEQ | Wildlife and Vegetation | 3 | Consolidated Permit Application - overall | <p>Comment: Plans insufficient to determine if engineering controls are adequate to positively exclude wildlife contact with chemical processing solutions and wastewaters.</p> <p>Proposed Resolution: Submit plans that adequately describe controls to positively exclude wildlife.</p> |
| B | 301 | DOGAMI | Wildlife and Vegetation | 3 | Appendix V, Section 4k; pdf pg 18 | <p>Comment: No details about noxious weed and invasive plant control measures</p> <p>Proposed Resolution: Please reference Appendix H “Noxious Weed Monitoring and Control Plan”</p> |
| B | 302 | DOGAMI | Wildlife and Vegetation | 3 | CAP Section 4, associated appendices, and Appendix J | <p>Comment: Detailed descriptions of the reclamation and the reclamation costs estimates derived from SRCE Excel spread sheets should be included, where appropriate, in the CPA and applicable appendices. For example, Appendix AD (Well Field Design Report) should include a reclamation narrative describing how the wells will be reclaimed and the cost derived from the SRCE Excel spread sheets for doing that reclamation.</p> <p>Proposed Resolution: Include specific descriptions of reclamation and the cost of that reclamation in the CPA and associated appendices that allow the details of those plans to be cross referenced with the SRCE Excel spread sheets.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| C | 307 | ODFW | Wildlife and Vegetation | 3 | Consolidated Permit Application Pages 110-11 | <p>Comment: The application states that workers will commute daily from surrounding towns, and that Calico will provide a daily bus shuttle from Vale. However, it is unclear if this is voluntary or mandatory busing to reduce the number of personal vehicles traveling. In addition, the application (page 95) references the use of Mitchell Butte Road as emergency access, and acknowledges the use for recreation access, but the application does not evaluate the potential conflicts or use of this road by employees.</p> <p>Proposed Resolution: Compliance with Division 420 is required, which includes mandatory bussing of employees. If bussing is proposed as voluntary, it does not meet the standard in OAR 635-420-0010(4)(f)(C) to minimize impact to big game winter range on the access road. Voluntary bussing does not address the minimization requirement for mitigation. This should be address in the Wildlife Protection Plan. A traffic study should be conducted for impacts and use associated with Mitchell Butte Road. There needs to be an evaluation of cumulative impacts and connected actions related to transportation and conflicts with big game winter range.</p> |
| B | 321 | USFWS | Wildlife and Vegetation | 3 | Noxious Weeds Plan, Section 4.3.2, page 11 | <p>Comment: Prescribed burned is contraindicated in degraded, low-elevation sagebrush habitat.</p> <p>Proposed Resolution: Do not include prescribed burning as a method to address noxious weeds.</p> |
| B | 322 | USFWS | Wildlife and Vegetation | 3 | Cyanide Management Plan, Page 5 | <p>Comment: The CMP cites the Wildlife Mitigation Plan in reference to “Standard of Practice 4.4 Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.” and “Standard of Practice 4.5 Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.” No mention of cyanide management is included in the Wildlife Mitigation Plan.</p> <p>Proposed Resolution: The cyanide management plan and wildlife mitigation plan must address measures to protect fish and wildlife from exposure to cyanide.</p> |

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| B | 326 | USFWS | Wildlife and Vegetation | 3 | Mitigation Plan, Section 6.2, page 10 | <p>Comment: The FWS will need to review avoidance buffers once nesting surveys are completed in accordance with the original Wildlife Study Work Plan. The following are considerations that may be incorporated into future permitted activities. These may be revised pending additional information detailing project activities or observed nesting activity. For active Ferruginous hawk nests: No activity within 0.5 mile buffer from March 5 to June 15. Additional recommendations (optional): further limit impacts by building a nest platform nearby that is not within line of sight of the project, and/or limit the amount of time spent at the site.</p> <p>1. For active Golden eagle nests: No activity within 1.0 mile buffer for nests that are within line of sight of the project (buffer could be less if topography blocks the nest) from Jan 15 to July 15. If the nest is within 1 mile and within line of sight of the activity, USFWS recommends obtaining an eagle take permit. Additional recommendations (optional): further limit impacts by limiting the amount of time spent at the site.</p> <p>2. While the Migratory Bird Act does not specifically prohibit nest disturbance, it does prohibit take. So if activities cause abandonment of the nest and eggs or chicks are present, it would be a violation of the Act. The Bald and Golden Eagle Act clearly prohibits nest disturbance.</p> <p>Proposed Resolution: Nests should be surveyed in accordance with the work plan during the nesting season to determine if they are active.</p> |
| C | 346 | DEQ | General | 4 | Appendix Y SWPCP pg. 10; 2.1.9 | <p>Comment: Typo goals.</p> <p>Proposed Resolution: Change goas to goals</p> |
| C | 347 | DEQ | General | 4 | Appendix Y SWPCP pg. 23; 4.1 | <p>Comment: Monitoring waiver is not "M."</p> <p>Proposed Resolution: Report "W" in the column(s) for any monitoring waiver.</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|---------|------------------|----------------|---|
| C | 348 | DEQ | General | 3 | CPA -- General | <p>Comment: General permitting comments: The application includes a comment that oil water separator wastewater will be used for dust control. This will be addressed during permitting phase. Engineering plans include surge pond with floor drain hooked up to it. Surge ponds must be lined. The application proposes a post-reclamation maintenance period of only three years, which includes annual site visits to monitor revegetation. The applicant should expect a post-closure period of 30+ years. The application states that the containment of process flows and reagents, and the collection and containment of surface contact water will be located in a concrete slab. Concrete by itself is not considered a liner for wastewater. This concept will need to be revised to protect the environment from the wastewater. Section 4.9 P. 236 of application states: "Reclaimed areas not meeting regulatory standards would be evaluated, and corrective actions implemented. These measures could include, if necessary, additional soil amendments, reseeding, and installation of erosion control measures. This obligation would cease when the reclamation goals and requirements have been achieved, and upon release of all related reclamation bond(s)." This will be addressed with further comments. Many of the plans lack details like what are their plans to manage the chemicals used for milling. Need to identify if there is secondary containment for the tanks, is the concrete coated, etc. This summary includes comments regarding the permit application, but is not considered complete. Due to the volume of material submitted, including the baseline reports that accompanied the application, more questions may be forthcoming as more detailed reviews occur.</p> <p>Proposed Resolution: Address during permitting phase.</p> |
| B | 355 | WRD | General | 4 | 4.2.1 Page 5 | <p>Comment: "MALH 227" is a typo, referring to the OWRD logid of Well 1.</p> <p>Proposed Resolution: Change to "MALH 2275".</p> |

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|----------------------------|-----------|--------|-----------------|------------------|-------------------------------------|---|
| B | 356 | WRD | General | 4 | 4.4.10 Page 19 | <p>Comment: The word “casing” appears twice in the same sentence, “If the casing has excessive mineralization on the casing...”</p> <p>Proposed Resolution: “If there is excessive mineralization on the casing...”</p> |
| C | 357 | DEQ | General | 3 | Appendix L – 3672R.Grassy.WPCFN | <p>Comment: Fees totaling \$90,300 not submitted</p> <p>Proposed Resolution: Submit fees with hardcopy of the permit application with a “wet signature.”</p> |
| C | 358 | DEQ | General | 4 | Appendix M/pg 4 | <p>Comment: This permit requires not only payment of the initial permitting fees, but also the annual fee, and a specific activity fee for modeling review. These fees must be received by DEQ before the application can be deemed complete.</p> <p>Proposed Resolution: Payment of fees to DEQ is required</p> |
| B | 363 | DEQ | Land Use | 3 | General | <p>Comment: OAR 340-093-0130 requires that the site characterization report includes, among other things, a list of adjacent landowners and a map showing the boundaries of those adjacent properties. This was not found in the application.</p> <p>Proposed Resolution: Revise application to include this information.</p> |
| B | 364 | DEQ | Land Use | 3 | General | <p>Comment: The Land Use Compatibility Statement from Malheur County only approves the use for Tax Lot 101 as identified in the findings and as completed by the applicant. Figure 3 of the wastewater design shows the system and plant operations to be on tax lot 100. The site evaluation application to Malheur County also shows the test holes are located on tax lot 100. Therefore, the LUCS is not reflective of the development and the WPCF permit application cannot be accepted.</p> |
| C | 365 | DEQ | Water Resources | 3 | Appendix Y SWPCP pg. 22; 3.8, 3.8.1 | <p>Comment: Tier I reports are required for all monitoring exceedances. Tier I reports are only submitted to ODEQ if exceed impairment monitoring, 60-days from receiving results.</p> <p>Proposed Resolution: Revise plan requiring Tier I for all monitoring and submittal as required in the permit.</p> |

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| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
|----------------------------|-----------|--------|---------------------------------|------------------|--|--|
| C | 366 | DEQ | Tailings and Waste Rock | 3 | Appendix C (Tailings Design Report) Drawings C- 15, C-16, D-2 | <p>Comment: The design does not include a proper leak detection system as part of the TSF liner.</p> <p>Proposed Resolution: Revise design to include a leak detection system and <u>underlying secondary liner over the entire floor of the TSF.</u></p> |
| B | 367 | DEQ | Water Resources | 3 | Appendix E, Section 4.4 and 5.6, pp. 8 and 11 | <p>Comment: While a rule of thumb of 110% may be acceptable to account for rainfall it may be inadequate for larger storm events.</p> <p>Proposed Resolution: Revise plan and address responses to events larger than 110%</p> |
| B | 370 | DEQ | General | 3 | General | <p>Comment: Detailed comments provided throughout.</p> <p>Proposed Resolution: Revise application in response to comments pertaining to 340-093-0130 and 340-093-0140.</p> |
| C | 371 | DEQ | Wildlife and Vegetation | 3 | Appendix I | <p>Comment: Endangered species</p> <p>Proposed Resolution: Please address any comments provided by ODFW.</p> |
| B | 377 | DOGAMI | Cross section notation labeling | 4 | Soil Borrow plan set | <p>The labeling of cross sections is confusing in the plan set. The maps note the following cross section labels: "A/4", "B/4" and "C/4" on figures 2 and 3 but the cross sections are labeled "A/2", "B/2", and "C3/3" on figure 4. It is not clear to the reviewer if the cross sections on figure 4 are the same as depicted on figures 2, and 3.</p> |
| B | 387 | DOGAMI | Div 30 Applications | 3 | Permit Boundary Maps | <p>Surveyed Permit Boundary Maps are required as Per 632-030-015. https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=2889</p> <p>Resources: https://www.oregongeology.org/mlrr/forms/sufacemining/APP_SURVEY_MAP_20180212.docx & https://www.oregongeology.org/mlrr/forms/sufacemining/FAQ_Survey_Maps_20180213.pdf</p> |
| C | 388 | DOGAMI | Shapefile Review | 4 | Land Claims Shapefile 20211221.shp | <p>Two polygons are not attributed</p> |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| C | 392 | ODFW | Groundwater/spring impacts | 3 | Wildlife Mitigation Plan | Wildlife Mitigation Plan does not address loss of habitat for spring impacts, either individually or cumulatively. The Plan does not detail mitigation for impacts to area springs from aquifer draw down, or provide a contingency plan for monitoring/mitigating impacts if/when they occur. To comply with the Mitigation Policy, the Plan should address what mitigation will occur should springs be impacted by well production. |
| B | 404B | ODFW | Sage-grouse | 3 | Wildlife Mitigation Plan, Section 7.4, Pg 26 | Power Lines - This is an important minimization measure to reduce impacts to sage-grouse and was considered in the project impact analysis. Provide details on what type of perch and nest deterrents will be utilized and how the persistence of these structures will be monitored and maintained. |
| B | 407 | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan, Section 8.2, page 27 | The Plan states that exact disturbance areas cannot be determined until the final design layout is known. This is inconsistent with ODFW Mitigation Policy to evaluate that the impacts are being mitigated (per the Habitat Categories) to replace lost functions and values through mitigation actions. In addition, this section references mitigation for the life of the project, but the Mitigation Policy states life of the project or duration of impacts, whichever is greater. ODFW does not have standard mitigation ratios, and ODFW evaluates the appropriate mitigation need based on habitat function/value of the proposed mitigation sites. This involves an evaluation of risk and the potential need for additionality if risk of failure is high. |
| B | 409 | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan, Section 8.3, page 28. | Page 28 references mule deer habitat will only be mitigated at 1:1 but that is not consistent with the ODFW Mitigation Policy. Habitat Category 2 includes a no net loss plus net benefit mitigation standard. Additional coordination with ODFW is recommended. |
| B | 411A | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan, Section 8.5, page 29-31 | While these options may be viable, there is not enough information under any option in this Section to provide a conclusive decision that the mitigation standards will be met. Provide information on the detail needed to comply with ODFW past requests and compliance with standards in OAR 635-415. Confer with ODFW to determine possible approaches. |
| B | 411B | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan, Section 8.5, page 29-31 | Option 1: There is no detail on the Programs In-Lieu Fee (ILF) cost calculation and payment structure required for this project. Provide details on the ILF and cost breakdown for the project to successfully mitigate impacts to sage-grouse habitat. |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| B | 412 | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan, Section 9, Pg 32 | The Mitigation Plan (Section 8) provides an ample number of potential mitigation options but none of them have been describe in sufficient detail, nor has there been coordination with ODFW to determine their validity and compliance with state mitigation policies. ODFW requests significant coordination with Calico and consultants to vet each of the mitigation options with state sage-grouse and fish and wildlife habitat mitigation policies and determine appropriate language for each viable mitigation option. |
| B | 413 | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan | The Plan is conceptual and lacks specificity for compliance with OAR 635-415. For there to be no net loss of habitat quality and to demonstrate a net benefit for Habitat Category 2, it is necessary to compare the quality of the impacted habitat with the quality of the habitat at the site proposed for mitigation to ensure that no habitat quality is lost, and to demonstrate that planned habitat improvements at the mitigation site are appropriate and durable to ensure no net loss. To accurately make this comparison, it is necessary to have an identified mitigation site. The synopsis in Appendix H are not sufficient to meet standards of ODFW mitigation policies. In addition, a 1:1 ratio does not account for the risk of having a successful mitigation outcome, and based on the nature, extent and duration of impacts, ODFW recommends posting of a bond or other financial instrument to ensure the mitigation site meets the standards in the ODFW mitigation policies (OAR 635-415-0020(7)). |
| B | 414 | ODFW | Mitigation Plan | 3 | Wildlife Mitigation Plan, Appendix H | The synopsis in Appendix H provide a general understanding of the habitat and acreages of properties available for purchase in 2022. These analyses do not provide information to crosswalk mitigation acres with proposed project impact to individual habitat categories or species. Similarly, there are no justifications for proposed treatments on which to determine habitat uplift or consultation with ODFW for compliance to mitigation policies. ODFW requests more information aligned with standards outlined in OAR 635-415-0020(8) and Section 4.4.5 of the Sage-grouse Mitigation Programs Operation Manual, to better evaluate if these potential properties are viable for offsetting project impacts to wildlife species and habitats. |

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| C | 416 | ODFW | Noxious weeds | 3 | Noxious Weed Monitoring and Control Plan, Section 4.2 Pg 8 | This section provides good detail on specific measures for protective management or locations that may introduce or act as vectors for noxious weeds. Provide discussion on mechanisms that will in place to ensure these measures are implemented when necessary and the order of operations for selecting and implementing multiple measures. |
| C | 420 | ODFW | Noxious weeds | 4 | Noxious Weed Monitoring and Control Plan, Section 6, Pg 17 | This section states that formal weed surveys are to be performed on a biennial basis until the company is release from reclamation responsibilities. Does this mean that weed surveys will be conduction throughout the life of the project, including decommissioning, until reclamation bonding is released? That should be the target, weed monitoring and treatment for the life of project impact. Describe any changes to weed management during decommissioning and post-project reclamation phases. |
| C | 421 | ODFW | Reclamation seeding | 4 | Reclamation Plan, Section 5.1, Pg 13, Table 5 | Reclamation should result in a self-sustaining ecosystem comparable to undamaged ecosystems in the immediate area (OAR635-420-0060(5)). This means there is a greater requirement to provide a wholistic approach when reestablishing vegetative communities for wildlife habitat, which includes perennial grasses, sagebrush, and annual forb species. ODFW requests the addition of Wyoming big sagebrush (seeds or plugs) and native forbs to the proposed seed mix. It will be important to consult with BLM and ODFW on proposed forb species. |
| B | 422 | ODFW | Post-Closure Monitoring | 3 | Reclamation Plan, Section 7.2, Pg 24, Bullet # 2 | The vegetation reclamation component of the monitoring section is vastly incomplete and provides little information to gauge compliance with state fish and wildlife policies. ODFW requests that reclamation success criteria be derived to identify and measure habitat percent vegetation characteristics, species composition, structural components, and address noxious and invasive weeds. Vegetation growth in arid locations of southeast Oregon can take several years to become established and several decades to mature. There is significant risk in reclamation failure. To reduce risk, ODFW requests monitoring occur frequent and iterative after reclamation actions have taken place. ODFW requests that reclamation monitoring criteria be derived and designed for long term implementation with adaptive management measures and process identified. These criteria should consider mitigation contingencies for if reclamation success cannot be achieved. Reaching the above suggested success criteria would release the reclamation burden and achieve the standard of a self-sustaining ecosystem as established in state policy. |

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|----------------------------|-----------|--------|-------------------------|------------------|--|--|
| B | 423 | ODFW | Post-Closure Monitoring | 3 | Reclamation Plan, Section 7.2, Pg 24, Bullet # 5 | Noxious weed treatment should not be bound by a set number of years as indicated in bullet # 5. ODFW requests that reclamation success criteria be derived and used to govern how long noxious weed treatment is required. The target for reclamation is a self-sustaining ecosystem comparable to undamaged ecosystems in the immediate area. Noxious weed treatment should occur accordingly to achieve this standard or provide additional mitigation if reclamation success is unattainable. |
| C | 425 | ODFW | Monitoring Frequency | 3 | Wildlife Protection Plan, pg. 10 | Quarterly monitoring of the perimeter fence is insufficient. |
| B | 427 | USFWS | Noxious weed plan | 3 | Noxious Weed Monitoring and Control Plan (p. 10 & 13-17) | Depending on the vegetation present within a treatment area and the target weed species, mowing and tilling as mechanical treatments to remove noxious weeds may be contraindicated because these methods cause soil disturbance and thereby increase the likelihood of establishment of new invasive plants. For example, typically a seed bed exists in the soil where weeds are established and soil disturbance may promote their germination and establishment. Tilling can remove biocrust layers of the soil which serve as defense against seed establishment and have been associated with lower densities of invasive vegetation. Tilling is not recommended in the vicinity of sensitive plants. Mowing should not be conducting in a manner that removes sagebrush or other desirable native shrubs, perennial bunchgrasses and forbs. Herbicides may be a preferred method over these techniques due to the likelihood of soil remaining undisturbed. |
| B | 428 | USFWS | Noxious weed plan | 3 | Noxious Weed Monitoring and Control Plan (p. 16) | Tilling and burning of medusahead thatch is not recommended due to the soil disturbance (see comment above) and the risk of wildfire. Tilling of medusahead is only advisable if the tilling is deep enough to place the annual grass seed below a level at which it can germinate and if the tilling is followed by planting of desirable seed at the surface. This is only considered practical in an area of solid medusahead in which the goal is to "farm" new species. Alternative methods to reduce thatch and/or penetrate the thatch with herbicide should be used. For instance, granular imazapic is a herbicide option to control medusahead where a thatch layer exists. |

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|----------------------------|-----------|--------|-------------------|------------------|---|---|
| B | 429 | USFWS | Noxious weed plan | 3 | Noxious Weed Monitoring and Control Plan Strategies & Weed Monitoring (p. 17) | Regular roadside spraying to prevent the establishment/spread of weeds should be included as a routine prevention activity, particularly given the increased traffic anticipated as a result of mine operations. Travel and weeds should be monitored on both the access roads from Vale and from Nyssa (access from the east via Owyhee Avenue may be selected by mine staff and visitors depending on the location from which they originate their travel). |
| B | 431 | USFWS | Weed species | 4 | Noxious Weed Monitoring and Control Plan | Ventenata is another emerging annual grass threat within the sagebrush biome that should be considered and targeted for survey efforts. |

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| B | 432 | USFWS | Noxious weed plan & Reclamation Plan reseeding | 4 | Noxious Weed Monitoring and Control Plan (p.8-9); Reclamation Plan (p. 13, 24) | <p>Where seeding is described as a method to compete with invasive vegetation, plant establishment objectives should be specified. Methods to monitor whether plant establishment objectives have been met have not been detailed in the Noxious Weed Monitoring and Control Plan and Reclamation Plan.</p> <p>When re-seeding areas disturbed by surface activities and/or the incursion of annual invasive grasses, the Service recommends following the principles outlined in “Using Resistance and Resilience Concepts to Reduce Impacts of Invasive Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Greater Sage-Grouse: A Strategic Multi-Scale Approach” (Chambers et al. 2014); the “Science framework for conservation and restoration of the sagebrush biome: Linking the Department of the Interior’s Integrated Rangeland Fire Management Strategy to long-term strategic conservation actions. Part 2. Management applications” (Crist et al. 2019); and “Defend the core: Maintaining intact rangelands by reducing vulnerability to invasive annual grasses” (Maestas et al. 2022).</p> <p>The Service encourages the applicant to collaborate with the BLM and EcoSource Native Seed Cooperative (https://www.ecosourcenativeseeds.com/; Jennifer Taynton; jennifer@ecosourceseeds.com) to develop the best seeding and reclamation strategies for the Project Area and to provide the project with locally sourced genetically-appropriate native plant seeds suitable for use when re-seeding areas to address habitat concerns and help offset the effects of invasive plant species.</p> <p>The Service recommends 4 lbs/acre for bluebunch wheatgrass, 2 lbs/acre for Sandberg bluegrass, and 3 lbs/acre for bottlebrush squirreltail.</p> <p>The Service also recommends adding forbs to the seed mix, e.g., hoary tansy aster (<i>Machaeranthera canescens</i>) and Douglas' dusty maiden (<i>Chaenactis douglasii</i>). Increased seed from Great Basin interagency seed collections may be available to provide locally adapted and genetically appropriate seed for this</p> |
| B | 435 | USFWS | Canada Thistle control | 4 | Noxious Weed Monitoring and Control Plan (p. 14) | <p>Milestone applied at budding stage or late fall after the first frosts can be effective, but consult product labels.</p> |

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|----------------------------|-----------|--------|--------------------------------------|------------------|---|---|
| B | 436 | USFWS | Common Reed | 4 | Noxious Weed Monitoring and Control Plan (p. 14) | There are native and non-native varieties of Common Reed. Recommend the variety be verified before control activities. |
| B | 437 | USFWS | Field Bindweed control | 4 | Noxious Weed Monitoring and Control Plan (p. 15) | Field Bindweed is a difficult plant to control. ODA advises that shallow cultivation may be counter-productive. Rather, ODA suggests that Picloram can be effective at full bloom, but it has a long residual and is hard on other broadleaf plants. High rates of Glyphosate (Roundup) may be effective. Regardless of herbicide choice, timing of application is critical. |
| C | 438 | USFWS | Kochia control | 4 | Noxious Weed Monitoring and Control Plan (p. 15) | ODA recommends contacting roadside applicators for advice because kochia requires proper herbicide choices and timing of application. |
| B | 439 | USFWS | Rush skeletonweed control | 4 | Noxious Weed Monitoring and Control Plan (p. 16) | Given that the extent of rush skeletonweed is >26 acres, herbicide treatment is considered the most effective means of treatment. ODA recommends: Milestone at 7 oz per acre or spot spray rate per label, or Tordon at 1 qt in rosette. |
| B | 440 | USFWS | Whitetop control | 4 | Noxious Weed Monitoring and Control Plan (p. 15) | The methods for controlling whitetop should better emphasize use of herbicides. Mowing whitetop will prevent seed, but not kill the plant and tilling will most likely exacerbate the problem. Sulfonyle urea herbicides are generally the best choice for treating whitetop and should be incorporated in to the plan. |
| B | 443 | USFWS | References | 4 | Noxious Weed Monitoring and Control Plan (p. 19) | The DiTomaso, J. (2013) reference is cited throughout the plan and does not include new herbicide formulations. Suggest incorporating most current science. |
| C | 445A | USFWS | Assessment of direct impacts – roads | 3 | Wildlife Mitigation Plan (p. 5); Transportation Baseline Trip Generation 2019-01.pdf (p. 2-3) | The plan assumes that all traffic will access the mining site from the north via Vale. However, given the availability of housing in Vale, it is likely that employees may reside outside of Vale and that it may be more direct for some visitors and employees to access the mine from the east via Nyssa. Thus, vehicle traffic estimates, as well as direct and indirect impacts associated with the <u>eastern access route</u> are necessary. |
| C | 445B | USFWS | Assessment of direct impacts – roads | 3 | Wildlife Mitigation Plan (p. 5); Transportation Baseline Trip Generation 2019-01.pdf (p. 2-3) | Additionally, p. 6, the Mitigation Plan indicates that employees will be <i>required</i> to use shuttles. This is different than the page 3 of the document “Transportation Baseline Trip Generation 2019-01.pdf” which states that the shuttle is only “proposed” (page 2) and that ridesharing/carpooling will be “actively promoted” (page 3), and that the shuttle <i>may</i> be provided “depending on demand” (page 3). |

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|----------------------------|-------------|--------|--|------------------|---|---|
| C | 445C | USFWS | Assessment of direct impacts – roads | 3 | Wildlife Mitigation Plan (p, 5); Transportation Baseline Trip Generation 2019-01.pdf (p. 2-3) | Decontamination of shuttle vehicles should be considered as a precaution to mitigate the potential for invasive weed spread due to increased traffic on the access roads. |
| B | 445D | USFWS | Assessment of direct impacts – roads | 3 | Wildlife Mitigation Plan (p, 5); Transportation Baseline Trip Generation 2019-01.pdf (p. 2-3) | Traffic monitoring should continue on both access routes to determine if estimates were accurate and if proposed mitigation measures (e.g., shuttle, speed limits, etc.) continue to be adequate/effective. |
| C | 447 | USFWS | Off-road travel | 3 | Wildlife Mitigation Plan, p. 25 | The Wildlife Mitigation plan states that no off-road travel will be allowed except in the case of emergency. This contradicts the Noxious Weed Monitoring and Control Plan that states that cross-country travel may be permitted for approved activities (e.g. mining). |
| B | 449 | USFWS | Indirect impacts | 4 | Wildlife Mitigation Plan, Table 8 | It is not clear why the proponent estimates 0 acres of indirect impact to the Category 2 acres classified as Wyoming Big Sagebrush/Bluebunch Wheatgrass Shrubland Alliance. |
| B | 451 | USFWS | Certified weed-free materials | 3 | Noxious Weed Monitoring and Control Plan (p. 9) | Use the North American Invasive Species Management Association Standards. Oregon Department of Agriculture's Commodities Department can provide expertise and or inspections. Local contact would be: Casey Prentiss in Ontario (541-889-5274) or Kevin Bailey in Salem ((503) 508-6733 Kevin.F.Bailey@oda.oregon.gov) |
| B | 452 | USFWS | Monitoring of wildlife protection measures | 3 | Wildlife Protection Plan | The plan specifies that wildlife protection measures will be inspected (e.g., quarterly, daily). However, given that there is little published data regarding the efficacy of Bird Deterrent Balls, additional monitored for efficacy to ensure they are functional and in fact are serving the purpose to prevent wildlife from accessing hazardous areas should occur. |
| B | 455B | USFWS | Nest deterrents on transmission line | 3 | Wildlife Protection Plan (p. 9) | Who will be responsible for monitoring the transmission lines for avian predator nests? What is the planned frequency and duration of monitoring? What will the process be for notifying Idaho Power of identified nest for removal? |
| C | 456 | USFWS | Protection of naturally occurring eagle and raptor nests | 3 | Wildlife Protection Plan | This plan does not detail how naturally occurring eagle and raptor nests will be protected and measures to prevent disturbance during the nesting seasons. |

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| B | 457A | USFWS | Ecological risk to wildlife | 3 | Ecological Risk Assessment (p.1 Section 2.1) | It appears that the reclaim pond is considered the only area at the facility that could pose ecological risk. Provide more detail as why the tailings storage and waste rock storage areas will not pose risk over time (will leachate from the waste rock be covered and lined and only drain to the reclaim pond? Will the liner completely prevent leachate from entering surface or groundwater, and how long with the liner last?) Is there expected to be any maintenance concerns with the liner, and has this process been used successfully at other sites to prevent groundwater and surface water contamination from tailings leachate? |
| C | 457B | USFWS | Ecological risk to wildlife | 4 | Ecological Risk Assessment (p.1 Section 2.1) | Other mines that operate using the heap leach process have problems with cyanide spills or spills associated with handling other process materials, along with surface and groundwater contamination from acid-mine drainage. How will spills of cyanide and other process materials be handled to minimize impact to the environment? What spill response materials will be on site and will they be sufficient to handle a spill? |
| B | 458 | USFWS | Ecological risk to wildlife | 3 | Ecological Risk Assessment (p.4 Section 2.3) | Acid mine drainage would be expected to result from this operation. Acid mine drainage has had adverse effects to fish and other aquatic resources, as well as to wildlife, at other mine sites. Please indicate more specifically how acid mine drainage will be managed at this site (specifically how drainage will be treated, including how long lime will be needed to be added to wastewater to maintain a more neutral solution and the source of the lime (e.g., where will the lime be sourced, and will it be stored on site in sufficient quantities to maintain a more neutral solution?) |
| C | 463B | USFWS | Groundwater drawdown | 3 | CPA p.44, Groundwater Baseline Report (Vol. III, p. 51) | The drawdown impacts estimated to nearby springs is high (up to 12 ft) and aquifer recharge and recovery rates are low (on the order of inches). In this arid environment, wildlife depend on springs, and the mine operations have the potential to significantly reduce the amount of surface water available for wildlife. |
| B | 463C | USFWS | Groundwater drawdown | 3 | CPA p.44, Groundwater Baseline Report (Vol. III, p. 51) | The extent of impact may be exacerbated by climate change, yet the Groundwater Baseline report does not include climate change effects in its projections. |
| B | 466 | USFWS | Reclaim pond, E-cell | 3 | Reclamation Plan (p. 18) | The Reclamation Plan describes protecting the reclaim pond and E-cell from wildlife with a perimeter fence. How will these facilities prevent access from avian wildlife? |

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| B | 474 | DEQ | Water Quality, WPCF | 3 | Grassy Mountain Mine WPCF-WQ Permit Application | Comment: The WPCF-WQ Permit Application, as presented in the revised December 2021 CPA, appears to be relatively complete. Save for minor information entries, a permit fee, corrections addressing potential Underground Injection Control facilities (UIC) presence as part of the project, a comprehensive waste stream characterization, and considerations of all DEQ's applicable solid waste provisions the application looks to be sufficient to begin developing draft permits. |

| S t a t u s | Comment # | Source | Topic | Comment Category | CPA Reference | Comment |
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| C | 476 | DEQ | NPDES, 1200-Z Stormwater | 3 | Grassy Mountain Mine National Pollutant Discharge Elimination System 1200-Z Stormwater Permit Application | <p>Comments: 1) Land Use Compatibility Statement did not check box for Water Quality NPDES Stormwater General Permit (1200-Z);</p> <p>2) Per Schedule A.8.b of the 1200-Z Permit, page 16, please include the 40 CFR 122.22 statement page that is signed and certified;</p> <p>3) Identify on a site map the locations of springs, wetlands and other surface water bodies both on site and adjacent to the site, per Schedule A.10.b.i.(15) of the 1200-Z permit;</p> <p>4) Per Schedule E.G.4.2.6, show proposed topsoil stockpile locations on site maps and provide narrative in the SWPCP for stockpile technology-based effluent limits (TBELS);</p> <p>5) Per Schedule E.G.4.1.8, prior to use of sediment treatment with cationic treatment you must notify your applicable DEQ regional office or agent in advance and receive authorization under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards;</p> <p>6) Change Section 4.1 Reporting Monitoring Data to accurately reflect electronic reporting. Some of the language depicts instructions for paper DMR reporting which is no longer applicable;</p> <p>7) Per Schedule E.G.6.2, show on site maps proposed access and haul roads;</p> <p>8) Per Schedule A.10.b.i.(19), show on site maps bulk chemical storage and transfer areas;</p> <p>9) Please add specific information pertaining to road maintenance of existing access roads and construction of new road cuts addressing any steep slopes;</p> <p>10) Figure 2 shows a temporary waste rock dump within the tailings facility footprint. If this is temporary, show location(s) of potential future waste rock dump(s), list potential pollutant source(s) and include TBELS to eliminate pollutant discharges in stormwater (waste rock characterization is acid-generating). Note that any changes to site conditions following permit approval will require a revised SWPCP to be submitted to DEQ for review; and</p> <p>11) Construction vs operations; please make sure SWPCP revisions are submitted through YDO as required by Schedule A 9.</p> |

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| C | 477 | WRD | Water Supply | 3 | Appendix C5 [Well Field Design Report] | Considering the repeated instances of tested wells encountering negative boundaries, the likelihood this will occur within the slated production wells appears likely. There should be a backup water supply plan in place should the wellfield prove unable to produce the volume of water necessary for operations. In the eventuality that a secondary water supply is needed, there are likely to be additional impacts to other resources (additional roadway traffic, excavation for pipelines, etc.) that should be considered before permit issuance. |
| B | 478 | WRD | Monitoring wells | 3 | Appendix C5 [Well Field Design Report] | The biggest ecologic concern that OWRD has are impacts to local springs by increased pumping of groundwater in the area. There are monitoring wells planned to assess changes to the water table around the TSF but none listed as part of the wellfield design. Existing wells are not positioned to observe changes in head elevations in the areas of nearby spring discharge such as Lowe Spring, for which drawdown is predicted to be between 0-12 feet (section 2.9.3.2) as a result of proposed groundwater production. The monitoring plan should identify the likely source aquifer for nearby springs (Lowe Spring, Poison Spring, Government Corral Spring) and propose the construction of monitoring wells which target this aquifer and that of the production wells in the projected area of influence of the production wells (between production wells and local springs). The monitoring plan should also include a schedule for measurement and reporting, no less frequent that quarterly. |
| C | 482 | DOGAMI | Land Use | 3 | | Have any of the BLM lands been classified by NRCS as soil type 1-6 or as high-value farmlands? The CUP application states that NRCS has not categorized the Patent parcel, but no information is provided for the BLM parcel. |
| C | 487 | DOGAMI | Land Use | 3 | | Consistent with MCC 6-6-7.G., please provide an assessment of the potential impacts of project lighting on fish and wildlife and recreation on the BLM parcel. |
| C | 490 | DOGAMI | Land Use | 3 | | Consistent with MCC 6-6-8-4.A., please provide a noise analysis consistent with the requirements of the DEQ noise rules and describe the effects of project noise on recreation within the BLM parcel. |
| C | 491 | DOGAMI | Land Use | 3 | | Consistent with MCC 6-6-8-4.A., please assess the visual impacts of the facility on recreational uses on the BLM parcel and whether visual screening is required to mitigate impacts. |

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| C | 492 | DOGAMI | Land Use | 3 | | Consistent with MCC 6-6-8-4.A., please assess the effects of project dust emissions on recreational uses on the BLM parcel, and whether the DEQ fugitive dust control plan will adequately address these effects. |