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4 **BEFORE THE**  
5 **DEPARTMENT OF GEOLOGY AND**  
6 **MINERAL INDUSTRIES**  
7 **OF THE STATE OF OREGON**  
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10 In the Matter of the Application for the Consolidated Permit  
11 For the Grassy Mountain Mine  
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)  
) DRAFT ORDER ON  
) APPLICATION FOR  
) CONSOLIDATED PERMIT

December 5, 2025

18 I. INTRODUCTION

19 This draft order proposes the approval of the application for a Consolidated Operating  
20 Permit for the construction and operation of the Grassy Mountain Gold Mine Project  
21 (Project). The Consolidated Permit Application (CPA) was submitted to the Oregon  
22 Department of Geology and Mineral Industries (DOGAMI) by Calico Resources USA Corp.  
23 (Applicant) and was determined to be complete on November 2, 2023. The draft order  
24 incorporates the draft Consolidated Operating Permit, which describes the conditions  
25 governing the Project.

26 The proposed operation would mine approximately 2.07 million short tons (MST) of mill-  
27 grade ore and 0.27 MST of waste rock over approximately 8 years resulting in  
28 approximately 409 acres of proposed surface disturbance<sup>1</sup>. The Applicant, Calico Resources  
29 USA Corp., a wholly owned subsidiary of Paramount Gold Nevada, would construct, operate,  
30 close, and reclaim an underground mining and indoor precious metal processing facility to  
31 develop Grassy Mountain gold and silver resources. The Project is located in Malheur  
32 County, Oregon, approximately 22 miles south-southwest of Vale, and consists of (1) the  
33 Mine and Process Area, and (2) the Access Road Area, which collectively comprise the  
34 Project “Permit Area” under jurisdiction of the State of Oregon.

35 The proposed Project consists of underground mine and ore processing facilities, including  
36 a temporary conventional mill, a permanent tailings storage facility (TSF), and a temporary  
37 waste rock storage facility (TWRSF), as well as ancillary support facilities. Mined ore-  
38 bearing rock would be crushed and processed in a closed-circuit carbon-in-leach (CIL)  
39 processing plant. The resulting detoxified mine tailings would then be pumped to the  
40 dedicated TSF. Water would be recovered (from the supernatant pond in the TSF) and  
41 pumped back to the mill for reuse. Waste rock would be hauled to a lined TWRSF near the  
42 TSF. See Section II for further details of the proposed Project.

43 As described in more detail below, the proposed Project is a mining operation governed by  
44 the State of Oregon’s consolidated application process, which governs the review and  
45 issuance of certain state permits necessary to construct, operate, close, and reclaim the  
46 proposed Project. The draft Consolidated Operating Permit is one of the state permits  
47 governed by the consolidated application process.

48 The proposed Project is also subject to certain federal and local government approval  
49 processes. The Permit Area includes private and public lands, the latter of which is  
50 managed by the United States (U.S.) Department of the Interior (DOI) Bureau of Land  
51 Management (BLM). The inclusion of BLM land in the Permit Area represents a federal  
52 nexus that triggered the National Environmental Policy Act of 1969 (NEPA). This draft

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<sup>1</sup> The total acreage of surface disturbance may change in the final access road engineering design to the extent necessary to avoid sensitive resources (e.g., pending subsurface evaluation of cultural resources).

order describes the integration of the NEPA analysis among other federal requirements with the state chemical process mining laws and regulations.

The proposed Project is also subject to local government land use approval. In 2019, Malheur County issued a conditional use permit (CUP) and a land-use compatibility statement (LUCS; per Oregon Department of Environmental Quality [DEQ] format) for the area of the Project on private land. The county did not issue a CUP for the federal land component of the Project (identified as Tax Lot 100 of Assessor's Map No. 22S 44E), contending that the county lacked jurisdiction to 'grant or withhold' land-use authorization on federal land. State law does not provide an exception to the application of land-use requirements on federal lands. ORS 197.180 and OAR Chapter 660, Divisions 030 and 031 require that all agency decisions made as part of a program affecting land use must comply with the statewide land use planning goals and must be compatible with acknowledged city and county comprehensive plans and land use regulations. DOGAMI has therefore made its own determination that the Project is compatible with the applicable county comprehensive plan and land use regulation. DOGAMI's Draft Land Use Findings of Fact and Conclusions of Law are incorporated herein and attached to this draft permit as Appendix A.

The Project as proposed by the Applicant is subject to review by DOGAMI pursuant to OAR Chapter 632, Division 37 (OAR 632-037; Division 37), Consolidated Permitting of Mining Operations. The purpose of the rules is to implement the consolidated permitting provisions of ORS 517.952 to 517.989. Under Oregon law, a consolidated permitting process is employed for administering state regulatory requirements for chemical process mines, and requirements are consolidated into a Consolidated Operating Permit issued (or denied) by DOGAMI as the lead permitting State agency.

A Consolidated Operating Permit is a binding agreement between the State of Oregon and the Applicant, authorizing the construction, operation, closure, and reclamation of the facility on an approved site, incorporating all conditions imposed by the State. The State will have continued authority over the site for which the Consolidated Operating Permit is issued and may inspect, or direct DOGAMI staff, other state agencies, or local governments to inspect the site at any time to ensure that the facility is operated consistently with the terms and conditions of the Consolidated Operating Permit.

After the public hearing and public comment period required by ORS 517.981(2), DOGAMI will issue a final order and Final Consolidated Operating Permit (final permit) with an opportunity for a contested case hearing. The final order and final permit may differ from the draft order and draft permit based on public comments received or further evaluation by DOGAMI.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### a. PROPOSED PROJECT LOCATION AND SITE BOUNDARY

The Project is proposed in southeastern Oregon, in Malheur County, primarily on BLM federal land with some smaller portions on private lands. The nearest major city is Vale, which is located approximately 22 miles away from the Project.

### b. PROPOSED PROJECT COMPONENTS

Access to the Project would be via public land administered by the BLM and private land controlled by other entities. The access road for the mine would be an existing road that begins at the intersection of US Route 20 and Russell Road and continues south along Cow Hollow Road and Twin Springs Road until reaching the Project area. The ore-bearing rock and waste rock would be extracted from an underground mine using conventional underground mining techniques including drilling, blasting, mucking, loading, and hauling. Haul trucks would transport the waste rock to the lined TWRSF near the TSF and transport the ore-bearing rock to the run-of-mine (ROM) ore stockpile adjacent to the mill. The ore would be crushed and leached in a closed-circuit CIL processing plant. The leached tailings (waste slurry) would go through a detoxification process (e.g., cyanide destruction) and then be pumped to the dedicated TSF, where surface supernatant solution (i.e., the clear liquid that separates from a solid residue after settling) would be recovered and pumped back to the mill for reuse.

Closure and reclamation would be conducted in stages over approximately 4 years, with 30 years of post-closure monitoring and inspections or over timeframes as may be required in regulatory permits (see conditions in the draft permit).

### III. PROCEDURAL HISTORY

#### a. NOTICE OF INTENT

On February 28, 2017, the Applicant filed a notice of intent to proceed with permitting under Oregon's chemical process mining laws and regulations.

#### b. CONSOLIDATED PERMIT APPLICATION

On May 17, 2017, the Applicant filed Environmental Baseline Study Work Plans describing the approaches for collecting baseline data for environmental and social (socioeconomics and environmental justice) resources. Public comments were accepted during public meetings (in Ontario and Bend) and during a public comment period. Based on feedback provided by state agencies and the public, the Applicant filed revised Environmental Baseline Study Work Plans on September 22, 2017. Between May 2017 and January 2023, the Applicant submitted baseline data reports to DOGAMI in support of the CPA. On February 2, 2023, the final baseline data reports were accepted as complete by the Grassy Mountain Technical Review Team (TRT), the interagency group established in accordance with ORS 517.967, of which, DOGAMI is the facilitating agency.

On November 15, 2019, the Applicant filed a CPA under Oregon's chemical process mining laws and regulations. In December 2021, the Applicant subsequently filed an updated CPA. Between November 2019 and October 2023, DOGAMI and the permitting and cooperating agencies reviewed the baseline data reports and CPA for completeness and held periodic public meetings.

On October 4, 2023, all members of the TRT concurred that the CPA was complete and the Applicant published a Final version of the CPA dated October 2023 that was posted to the Project website<sup>2</sup> hosted by DOGAMI. DOGAMI issued a Notice to Proceed (NTP) for the Grassy Mountain Project permitting process in a letter dated November 2, 2023, following the CPA completeness determination.

#### c. OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES REVIEW PROCESS

Under state law, Oregon uses a consolidated application process per Oregon Administrative Rule Chapter 632, Division 37 for administering state regulatory requirements for chemical process mines. The rules address (a) implementation of a state consolidated permitting process for mining operations, (b) coordination of federal and state permitting processes as they relate to the consolidated permitting process, and (c) opportunities for public participation and comment throughout the state consolidated permitting process. It is the policy of the State of Oregon to protect its environmental, scenic, recreational, social, and

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<sup>2</sup> [https://www.oregon.gov/dogami/mlrr/Pages/Calico-GrassyMtn\\_projectDocuments.aspx](https://www.oregon.gov/dogami/mlrr/Pages/Calico-GrassyMtn_projectDocuments.aspx)

archaeological and historic resources from unacceptable adverse impacts that may result from mining operations. Consistent with this policy, and to protect public health, safety, welfare, and the environment, the State will only permit operations that comply with the provisions set forth in ORS 517.952 to 517.989. As described above, federal and local agencies also have the authority to require additional permits and approvals prior to operation of a chemical process mine in the State of Oregon.

The Division 37 consolidated application process is overseen by DOGAMI and includes any permits that may be required from agencies including, but not limited to DOGAMI, DEQ, the Oregon Water Resources Department (WRD), the Oregon Department of State Lands (DSL)<sup>3</sup>, and local government entities such as Malheur County. Additionally, agency approvals (not formal permits) are required for the following (described in further detail below):

(1) Basalt borrow quarry approval by DOGAMI for subgrade material, road surfacing, closure cover material, etc.;

(2) Closure cover borrow areas quarry approval by DOGAMI for topsoil and colluvial soils excavated for revegetation of reclamation cover areas;

(3) Dam safety hazard rating designation and approval by WRD required for the TSF supernatant dam associated with the mine facility; and

(4) Public water system (drinking water) design (conditional approval) and post-installation approval by the Oregon Health Authority (OHA).

The consolidated application process has engaged with other cooperating agencies that are involved with statutory environmental review of the proposed Project to achieve compliance with Oregon state standards and policies via conditions to the Consolidated Operating Permit. Cooperating agencies include the Oregon Department of Fish and Wildlife (ODFW) and the Oregon Department of Agriculture (ODA). Several other state agencies are considered commenting agencies, which may make recommendations to permitting agencies regarding permit conditions or whether to issue or deny a permit. The Oregon State Historic Preservation Office (SHPO) was initially assigned as a commenting agency; however, that status changed as a result of the agency's involvement in the federal process (see Section III.h. below). Many of these agencies are also part of the Project Coordinating Committee (PCC) and/or the TRT, which were formed to oversee application, permitting, and environmental review of the proposed Project.

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<sup>3</sup> In certain cases, a wetland fill permit may be required by DSL due to unavoidable impacts to wetlands and waters of the State

The following sections describe the roles of state agencies in the consolidated application process in greater detail.

d. OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY RESPONSIBILITY

DEQ administers OAR Chapter 340, Division 043 (Division 43) for the protection of the environment during chemical mining activities. The purpose of the Division 43 rules and guidelines is to prevent water pollution and protect the quality of the environment and public health in Oregon, consistent with the policies of ORS 468B.015 and 468B.020. These rules and statutes require the application of all available and reasonable methods for the control of wastes and chemicals relative to design, construction, operation, and closure of mining operations that use cyanide (or other chemicals) to extract metals or metal-bearing minerals from the ore.

The following requirements provide further guidance regarding the level of environmental protection these rules are intended to achieve:

(a) Liner, leak detection, and leak collection systems (systems) are necessary for heap leach pads, solution ponds, and tailings facilities to assure that any leak will be detected before toxic materials escape from the liner system and are released to the environment (begins below the last liner);

(b) The toxicity of mill tailings and the potential for long-term cyanide and toxic metals release from mill tailings shall be reduced to the greatest degree practicable through removal, reuse, or destruction of chemical solutions prior to placement of tailings in the tailings disposal facility; and

(c) The closure of heap leach pads and tailings disposal facilities shall prevent future release to the environment of residual potentially toxic chemicals contained in the facility. DEQ also requires 30 years of post-closure monitoring to detect and prevent contamination of land and water from past operations and reclamation actions.

e. OREGON WATER RESOURCES DEPARTMENT RESPONSIBILITY

WRD requires a water right permit to appropriate public waters for mining/industrial use. According to OAR Chapter 690, Division 300, "Mining Water Use" means the use of water for extraction, preliminary grading, or processing of minerals or aggregate at a mining site or construction, operation, and maintenance of a mining site. These uses include, but are not limited to, general construction, road construction, and dust control. Examples of mining may include aggregate, hard rock, heap leach, and placer mining. The Permit to Appropriate Public Waters necessary for the proposed Project was granted to the Applicant under Application File Number (G-11847) on December 11, 2019, and is therefore not included in the consolidated application process.

Dam safety, related to the proposed TSF at Grassy Mountain, is described in OAR Chapter 690, Division 020. The purpose of this rule is to implement ORS 540.443 through 540.491 and ORS 540.995, as well as applicable sections of ORS 536.050 and ORS 537.400, through actions that are intended to ensure the safety of the Dams, insofar as Dams may affect possible loss of life or property, and damage to public infrastructure. According to OAR-690-020-0080, construction of the dam requires WRD approval. Prioritization of Dam safety actions and requirements are based on the Hazard Rating of the Dam. In a letter dated July 7, 2020, WRD granted approval of the design plans and specifications submitted by the Applicant and rated the tailings dam as Low hazard.

f. OREGON DEPARTMENT OF FISH AND WILDLIFE RESPONSIBILITY

ODFW is a cooperating agency for the Project per ORS 517.952, which includes protection measures for fish and wildlife that shall be consistent with the agency's policies. Further, ORS 517.988 outlines fish and wildlife protections that shall be included in the Consolidated Operating Permit. ODFW administrative rules for chemical process mining, including (OAR Chapter 635, Division 420), compensatory mitigation for wildlife habitat (OAR Chapter 635, Division 415), and Greater Sage-Grouse habitat (OAR Chapter 635, Division 140) describe the required compliance for activities permitted through the Consolidated Operating Permit, as well as the agency's Permit Review Standards. The purpose of Division 420 is to implement the provisions of Oregon Laws 1991, Chapter 735. These rules prescribe the standards for DOGAMI review of proposed chemical process mining operations for the purpose of developing conditions for protection of wildlife and their habitat and to further the Wildlife Policy (ORS 496.012) and Food Fish Management Policy (506.109) of the State of Oregon.

g. OREGON HEALTH AUTHORITY RESPONSIBILITY

OAR Chapter 333, Division 061 establishes the rules implementing the Oregon Drinking Water Quality Act of 1981, enacted to assure safe drinking water at all water systems. On March 2, 2020, OHA provided a conditional approval letter for the Applicant's proposed public water system. Following review of the Applicant's public water system plan, OHA granted permission for construction. Further, sampling from the water system cannot occur until the facility has the infrastructure in place. Therefore, the sampling and formal approval of the operating system will not occur until after the approval of the final permit and construction of the mine facility, including the on-site public water system.

h. OREGON STATE HISTORIC PRESERVATION OFFICE RESPONSIBILITY

Division 37 requires the Existing Environment – Baseline Data (OAR 632-037-0055) section of the CPA to identify cultural and archaeological resources in the study area. The TRT defines the study area, which encompasses the area within which baseline data must be collected and impact analyses must be conducted (OAR 632-037-0010[29]). Per OAR



632-037-0085, the Environmental Evaluation must analyze the direct and indirect impacts of the proposed mining operation (and construction, closure, and reclamation) on cultural and archaeological resources. The Environmental Evaluation informs the drafting of conditions in the Consolidated Operating Permit (ORS 517.981(1)).

BLM determined that the proposed Project is a federal undertaking per Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800). SHPO is participating in formal consultation under the federal Section 106 process and has decided not to participate as a commenting agency or member of the TRT for the Project. Cultural resource review is nonetheless required to ensure compliance with SHPO guidelines and with the statutes and rules governing the consolidated permitting process.

The Applicant previously requested (in a letter dated January 3, 2023) and was approved (in a letter dated February 13, 2023), to defer the cultural resources impact evaluation from the baseline report to the Environmental Evaluation phase of the Consolidated Permitting Process. Since that approval from DOGAMI, formal consultation between BLM, SHPO, and affected Native American Tribes is ongoing per 36 CFR Part 800. The Applicant is also engaging with the Burns Paiute Tribe to scope tribal studies within the study area that could include literature reviews, interviews, site identification, National Register of Historic Places (NRHP) evaluations, and project effect analysis (in a letter from the Applicant to the BLM dated February 18, 2025 regarding a data gap analysis request in support of the Grassy Mountain NEPA Environmental Impact Statement [EIS] Alternative Access Routes).

Since SHPO had determined not to provide the cultural resources review and analysis that DOGAMI requires in order to issue a Consolidated Operating Permit for the proposed Project, and because review under Section 106 of the NHPA, which could inform DOGAMI's decision on a Consolidated Operating Permit, is not yet complete, in September 2025, DOGAMI contracted Stantec Consulting Services Inc. (Stantec) to support DOGAMI in identifying real property of historic significance, or historic property, that may be affected by the proposed Project (ORS 358.653[1]). Stantec reviewed the provided Baseline Report and other Project materials to identify cultural resources previously recorded within the Permit area, discovery and evaluation methods, significance determinations, and eligibility recommendations for listing in the NRHP. The cultural resources review was conducted by an Oregon Qualified Archaeologist (ORS 390.235) who exceeds the Qualified archaeologist standards outlined in ORS 390.235(6)(b) and followed state standards including aspects of state standards that have adopted federal requirements.

OAR 632-037-0005 states that the policy of the State of Oregon is to protect its resources including archaeological and historic resources from unacceptable adverse impacts from mining operations, "...while permitting operations that comply with the provisions set forth

in ORS 517.952 to 517.989...” The review of available Project materials enabled Stantec to make recommendations to DOGAMI regarding adequacy of previous cultural resources identification efforts, NRHP evaluations, impact assessments, and whether construction and operation of the proposed Project would have any significant adverse impacts to sites of archaeological significance (ORS 358.905[1][b]). Stantec provided a memorandum to DOGAMI with a comprehensive summary of the status of cultural resources evaluations, requests for additional information, and recommendations dated November 3, 2025.

Stantec’s memorandum incorporates BLM’s identification of sites of archaeological significance and potential archaeological significance within the proposed Permit area. The memorandum also supports BLM’s and SHPO’s determination that subsurface testing must be conducted at sites that may be adversely affected by the proposed Project. Subsurface testing would delineate the vertical and horizontal resource boundaries, and provide information necessary to make determinations of effect, evaluate resource significance, and determine whether proposed avoidance measures are sufficient to avoid adverse effects to any historic property or potential historic property.

The Stantec memorandum also identifies avoidance, minimization, and mitigation measures, which could include designed avoidance, (e.g., modifying road routes), capping the site(s) with gravel, implementing buffer zones, mining underneath identified resources (if possible), off-site mitigation, and data recovery. Because the Stantec memorandum has identified additional cultural resources analysis that must be completed before specific avoidance, minimization, or mitigation conditions can be incorporated into the Operating Permit, issuance of the final Operating Permit will not occur until completion of the work and incorporation of the conditions.

The location of cultural resources will be maintained as confidential and exempt per the Oregon public records law, ORS 192.311, under ORS 192.345(11).

IV. REQUIRED PERMITS

The draft Consolidated Operating Permit dated December 1, 2025 includes the draft permit conditions required by DOGAMI for the Project. The draft permit is not a final approval of the Project; therefore, any ground-disturbing and construction activities are prohibited until final permits are issued by the State. As described above, the consolidated permitting process includes permits issued by multiple state agencies. The permits required for the Project, by agency, are listed below.

a. OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY – PERMIT REQUIREMENTS

**Air Contaminant Discharge Permit (ACDP)**

Permit holder: DEQ

Sources covered under permit: Primary smelting and/or refining of ferrous and non-ferrous metals.

**Water Pollution Control Facilities Permit (WPCF-N)**

Permit holder: DEQ

Sources covered under permit: (a) Mine tailings from the TSF; (b) Cemented rock fill containing waste rock from the Underground Workings; (c) Leachate from the Reclaim Pond; (d) Mill area run off from the Catchment Pond; and (e) Underground workings run off from the Underground Station Sumps.

**Water Pollution Control Facilities Permit (WPCF-On-site)**

Permit holder: DEQ

Source covered under permit: Domestic sewage treated by standard pressurized drainfield(s).

**National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater Discharge Permit No. 1200-Z**

Permit holder: DEQ

Sources covered under permit: Discharged industrial stormwater to surface waters or to conveyance systems that discharge to surface waters of the State.

b. OREGON WATER RESOURCES DEPARTMENT – PERMIT REQUIREMENT

**Permit to Appropriate Public Waters Permit**

Permit holder: WRD

Sources covered under permit: Permit to appropriate the public waters, for beneficial use of water not waste, for a mining operation from points of appropriation (POA), including seven (7) water supply wells supplemented by waters from an underground mine (three

[3] POAs). The permit amendment was issued to the Applicant on December 11, 2019, which represents the only permit issued for the Project to date.

c. OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES –  
PERMIT REQUIREMENT

**Operating Permit**

Permit holder: DOGAMI

Sources covered under permit: Permit issued that allows for the mining and processing of metal-bearing ores and provides for reclamation. Division 37 consolidated permitting rules apply to chemical process metal mine operations excluding placer mines and operations using only gravity separation to process ore. Permit conditions submitted by a cooperating agency are included as conditions in the draft Consolidated Operating Permit.

356 V. ENVIRONMENTAL REVIEW

357 Per Division 37, an Environmental Evaluation and Socioeconomic Impact Analysis is  
358 required under ORS 517.952 to 517.989 to address specific impacts of a mining operation  
359 and to allow affected agencies to develop permit conditions. Division 37 also states that the  
360 timelines for the preparation of the State's Environmental Evaluation and the Federal NEPA  
361 EIS should be coordinated. The NEPA analysis is required due to the federal nexus for the  
362 Project, which is proposed construction, operations, reclamation, and access roads on BLM  
363 land.

364 An Environmental Evaluation and a Socioeconomic Impact Analysis were prepared by  
365 Stantec on behalf of DOGAMI to satisfy requirements of the consolidated permit procedures  
366 including the evaluation of potential impacts on environmental and social resources from  
367 the proposed Project and Project alternatives. The State's Environmental Evaluation and  
368 Federal NEPA EIS were consistent with respect to the alternatives evaluated for the Project,  
369 which include the Project as proposed by the Applicant and the No Action Alternative  
370 (denial of a final permit). The Environmental Evaluation was published in August 2024, and  
371 public notice of its availability was provided on the Project website. The Environmental  
372 Evaluation was reviewed by the TRT and the public and was subsequently determined to be  
373 complete by DOGAMI on October 3, 2024<sup>4</sup>. The utility of the Environmental Evaluation and  
374 Socioeconomic Impact Analysis is to inform agencies, tribes, local governments, and the  
375 public about the direct and indirect environmental impacts of the proposed Project and the  
376 measures identified to avoid, minimize, or mitigate those impacts. The approval of the  
377 Environmental Evaluation triggered the start of draft permit preparation, which would be  
378 followed by the delivery of draft permits and conditions to DOGAMI, and ultimately, the  
379 issuance of the draft Consolidated Operating Permit.

380 Per OAR-632-037-0118, the best available, practicable, and necessary technology must be  
381 employed during chemical process mining including extraction, processing, and  
382 reclamation, to ensure compliance with the State's environmental standards. The  
383 evaluation and determination of these technologies was a collaborative process between  
384 the TRT and the Applicant. The best available, practicable, and necessary technology  
385 options for the Project were approved by the TRT during a TRT meeting on March 6, 2025.

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<sup>4</sup> Although the Environmental Evaluation was approved in 2024, the evaluation of potential impacts on cultural resources from the Project remains in process (see Section II.h. of this draft order).

386 VI. APPLICATION OF STATE OF OREGON STANDARDS

387 The applicable rules of the State of Oregon for the evaluation and approval/denial of the  
388 proposed Project chemical process mine are provided below by agency. Refer to the  
389 individual permits from the agencies, contained in the draft permit, for additional rules and  
390 relevant statutes.

391 a. OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

392 [OAR 632-001 – PROCEDURAL RULES](#)

393 [OAR 632-030 – OREGON MINED LAND RECLAMATION ACT](#)

394 [OAR 632-037 – CONSOLIDATED PERMITTING OF MINING OPERATIONS](#)

395 b. OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

396 [OAR 340-043 – CHEMICAL MINING](#)

397 [OAR 340-071 – ONSITE WASTEWATER TREATMENT SYSTEMS](#)

398 [OAR 340-200 – GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS](#)

399 [OAR 340-208 – VISIBLE EMISSIONS AND NUISANCE REQUIREMENTS](#)

400 [OAR 340-209 - PUBLIC PARTICIPATION](#)

401 [OAR 340-212 – STATIONARY SOURCE TESTING AND MONITORING](#)

402 [OAR 340-215 – OREGON GREENHOUSE GAS REPORTING PROGRAM](#)

403 [OAR 340-216 – AIR CONTAMINANT DISCHARGE PERMITS](#)

404 [OAR 340-218 – OREGON TITLE V OPERATING PERMITS](#)

405 [OAR 340-222 – STATIONARY SOURCE PLANT SITE EMISSION LIMITS](#)

406 [OAR 340-224 – NEW SOURCE REVIEW](#)

407 [OAR 340-226 – GENERAL EMISSION STANDARDS](#)

408 [OAR 340-228 – REQUIREMENTS FOR FUEL BURNING EQUIPMENT AND FUEL SULFUR](#)  
409 [CONTENT](#)

410 [OAR 340-244 – OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM](#)

411 [OAR 340-245 – CLEANER AIR OREGON](#)

412 c. OREGON DEPARTMENT OF FISH AND WILDLIFE

413 [OAR 635-140 – GREATER SAGE-GROUSE CONSERVATION STRATEGY FOR OREGON](#)

414 [OAR 635-415 – FISH AND WILDLIFE HABITAT MITIGATION POLICY](#)

415 [OAR 635-420 – CHEMICAL PROCESS MINING CONSOLIDATED APPLICATION AND PERMIT](#)  
416 [REVIEW STANDARDS](#)

417 d. OREGON WATER RESOURCES DEPARTMENT

418 [OAR 690-020 – DAM SAFETY](#)

419 [OAR 690-078 – APPLICATIONS AND PERMITS FOR CHEMICAL PROCESS MINING](#)

420 [OAR 690-310 – WATER RIGHT APPLICATION PROCESSING](#)

421 [OAR 690-315 – WATER RIGHT PERMIT EXTENSIONS](#)

422 [OAR 690-320 – WATER RIGHT PERMITS](#)  
423 [OAR 690-325 – ASSIGNMENT OF A WATER RIGHT PERMIT AND REQUEST FOR ISSUANCE](#)  
424 [OF REPLACEMENT PERMITS](#)  
425 [OAR 690-330 – WATER RIGHT CERTIFICATES](#)  
  
426 e. OREGON HEALTH AUTHORITY  
427 [OAR 333-061 – DRINKING WATER](#)  
  
428 f. OREGON STATE HISTORIC PRESERVATION OFFICE  
429 [OAR 736-050 – HISTORIC PRESERVATION OFFICER](#)  
430 [OAR 736-051 – ARCHAEOLOGICAL PERMITS](#)  
431 [OAR 736-052 – STATE AGENCY TRANSFER OF HISTORIC ARTIFACTS](#)  
432 [OAR 736-070 – STATE AGENCY COORDINATION](#)  
  
433 g. OREGON DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT  
434 [OAR-660-030 – REVIEW AND APPROVAL OF STATE AGENCY COORDINATION PROGRAMS](#)  
435 [OAR-660-031 – STATE PERMIT COMPLIANCE AND COMPATIBILITY](#)

VII. EVALUATION OF OREGON DEPARTMENT OF GEOLOGY AND MINERAL  
INDUSTRIES STANDARDS

DOGAMI's Division 37 rules establish standards for approving or denying a Consolidated Operating Permit. The following section describes DOGAMI's findings of fact and conclusions of law with respect to the Division 37 standards. The conditions and plans required to comply with the Division 37 standards are included in the draft Consolidated Operating Permit and incorporated by reference in this draft order. Some, but not all of the required conditions and plans are described in this section. Noncompliance with any required plan or condition constitutes a violation of the Consolidated Operating Permit.

a. OAR 632-037-0060 - OPERATING PLAN

The Operating Plan section of a CPA shall include a number of requirements listed in OAR 632-037-0060. The Grassy Mountain CPA submitted by the Applicant was determined to be complete on October 4, 2023 (see Section III.b.). The Operating Plan is incorporated by reference into this draft order. Compliance with the Operating Plan is required as a condition of the draft Consolidated Operating Permit. Components of the Operating Plan may be revised prior to the issuance of the final Consolidated Operating Permit.

One noteworthy requirement per OAR-632-037-0060 is the water balance of the process system and leak detection systems and reporting frequency. The following conditions associated with DEQ's WPCF-N permit provide the necessary State requirements for compliance with respect to leak detection.

**Condition 217 (WPCF-N Permit):** *The permittee must conduct regular monitoring and reporting of all underdrain systems including the Tailings Storage Facility, Temporary Waste Rock Storage Facility and any other leak detection system.*

**Condition 241 (WPCF-N Permit):** *"The Tailing Storage Facility lining system must include the following engineering controls or alternative controls as DEQ approves in writing:*

- A composite liner system, including continuous 80-mil high-density polyethylene liner (HDPE) geomembrane, 300-mil thick enhanced geosynthetic clay liner (GCL) with a maximum hydraulic conductivity of  $1 \times 10^{-10}$  cm/sec, and 6- to 12-in-thick native prepared subgrade.*
- A continuous leachate secondary collection and removal system designed to effectively monitor the overlying composite-liner system's performance and (1) detect and collect leachate at locations of maximum leak probability; and (2) prevent groundwater intrusion and related monitoring biases. Perforated piping network and monitoring ports.*



- *An underflow collection system Perforated and solid CPE and HDPE gravity piping network in 18-in-thick drainage layer 6-in-thick filter layer, and gravity flow to reclaim pond.*
- *A leachate collection sump(s) with a double composite liner system and a leak detection and removal system."*

**Condition 243 (WPCF-N Permit):** *"The leak detection for the tailing's storage facility and the TWRSF must include the following engineering controls or alternative controls as approved by DEQ in writing:*

- *The leak detection piping must be placed below the primary geomembrane liner of the tailing's storage facility and TWRSF.*
- *Must consist of perforated 2-inch diameter schedule 80 polyvinyl chloride (PVC) piping immediately below the primary collection pipes and primary geomembrane (above the secondary GCL) to monitor potential leaks where concentrated flows are expected.*
- *Along the alignment of the leak detection pipes, an additional layer of 80 mil HDPE geomembrane liner will be installed immediately below the GCL.*
- *Each leak detection pipe must report to an independent leak detection riser to provide access for both monitoring of leakage flows and allow for the installation of small submersible pumps to evacuate any observed flows."*

b. OAR 632-037-0077 - ADDITIONAL REQUIREMENTS (LAND USE)

According to OAR 632-037-0077, the Applicant shall submit all information required by either state law or the administrative rules of a permitting agency to determine whether to issue or deny a land use permit that is applicable to the proposed operation. The land use permit must be consistent with the DOGAMI's state agency coordination agreement, including relevant sections of OAR Chapter 632, Division 001. The land use evaluation process and findings are described in Section I (Introduction) and contained in Appendix A to this draft order. The following land use conditions are required to demonstrate compatibility with acknowledged city and county comprehensive plans and land use regulations. DOGAMI concludes that, based on the Draft Land Use Findings of Fact and Conclusions of Law (Appendix A), these conditions, and Malheur County's July 30, 2019, LUCS, the proposed Project complies with DOGAMI's state agency coordination agreement.

**Condition 68 (Consolidated Operating Permit):** *Throughout the construction, operation, and reclamation of the Project, the Permit Holder must comply with all applicable state and federal environmental quality statutes, rules, and standards, and all applicable permit requirements of other state agencies.*

**Condition 337 (Consolidated Operating Permit):** *During construction, operation, and reclamation of the Project, the Permit Holder will: (1) comply with the practices*

presented in BLM's Technical Note 457 Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Manage Lands (Sullivan et al., 2023); and (2) direct all site lighting downward to minimize spillover outside the Project Area.

**Condition 338 (Consolidated Operating Permit):** Prior to operation of the Project, the Applicant will construct a perimeter fence around the Project Area. Three-strand barbed wire fences will be constructed in accordance with BLM fencing standards per BLM Handbook 1741-1. Cattle guards or gates, as appropriate will be installed along roadways in a manner sufficient to prevent the intrusion of cattle within the Project Area. During operation, and until four years after cessation of operations, the Applicant must maintain these features in a condition sufficient to prevent the intrusion of cattle within the Project Area. In addition, prior to operation of the Project, the Applicant will construct a perimeter fence around the E Cell. The Applicant must maintain this feature in a condition sufficient to prevent the intrusion of the cattle until the completion of the 30-year post-closure monitoring period.

**Condition 339 (Consolidated Operating Permit):** The Applicant will subscribe to the Vale Rangeland Fire Protection Association.

**Condition 340 (Consolidated Operating Permit):** The Applicant must collaborate with the Malheur County Sheriff's Office in regards to a security plan as well as law enforcement and emergency response plans (Exhibit 4 of the Draft Land Use Findings).

**Condition 341 (Consolidated Operating Permit):** The Permit Holder must acquire any necessary permits from Malheur County prior to construction affecting county roadways, and must comply with all Malheur County road design, construction, and improvement standards.

**Condition 342 (Consolidated Operating Permit):** All necessary road improvements will be constructed and/or paid for by the Permit Holder.

**Condition 343 (Consolidated Operating Permit):** Roads constructed for the Project within the Project Area will be reclaimed in accordance with the final approved reclamation plan included in the DOGAMI Operating Permit.

**Condition 344 (Consolidated Operating Permit):** Prior to commencement of construction, the Permit Holder must obtain all necessary right-of-way permits to install new power distribution lines within County rights-of-way.

c. OAR 632-037-0085 - ENVIRONMENTAL EVALUATION

The purpose of an Environmental Evaluation is to address the potential impacts of a mining operation. The evaluation shall focus on significant environmental issues and alternatives to allow agencies to make decisions on whether to issue or deny a permit and develop permit conditions. It should inform decision makers and the public of reasonable

alternatives that would avoid or minimize adverse impacts and/or enhance the quality of the human and natural environment. An analysis of the reasonably foreseeable causes and impacts of the proposed mine on the environment, including but not limited to air, water, soil, vegetation, wildlife and wildlife habitat, geology, cultural resources, and visual resources must be included. The Environmental Evaluation was determined to be complete on October 3, 2024 (see Section IV for further information). Refer to DEQ's draft permits for conditions related to the protection of environmental resources.

The protection of cultural resources is specifically called out in OAR 632-037-0085, and the conditions developed for their protection are presented below.

***Condition 20 (Consolidated Operating Permit):*** Final permits will not be issued until after the BLM issues a ROD and SHPO concurs with the Section 106 analysis.

***Condition 34 (Consolidated Operating Permit):*** If a previously unidentified cultural resource or unanticipated effect to a historic property is discovered, all ground disturbing activities within 30 meters of that resource shall cease and the Inadvertent Discovery Plan will be followed. Appropriate notification to SHPO and Tribe would be completed consistent with Section 106 of the NHPA.

***Condition 334 (Consolidated Operating Permit):*** Protect significant and unevaluated cultural resources and historic properties from adverse effects related to all project activities. Proposed pre-issuance and post-issuance treatments, as applicable, will be determined by BLM in consultation with SHPO, affected Tribes, and Advisory Council on Historic Preservation (ACHP), as applicable, in accordance with Section 106 of the NHPA.

***Condition 335 (Consolidated Operating Permit):*** An archaeological monitor may be present to observe and direct activities taking place within the boundaries of any historic property or potential historic property as decided on a case-by-case basis.

***Condition 336 (Consolidated Operating Permit):*** If the BLM determines that a historic property has been damaged, BLM will halt all activities that could result in further damage to the historic property and will notify the SHPO and any affected Tribes concerning the proposed actions to mitigate adverse effects, consistent with Section 106 of the NHPA.

d. OAR 632-037-0090 - SOCIOECONOMIC IMPACT ANALYSIS

The development of a Socioeconomic Impact Analysis is required to identify the major and reasonably foreseeable socioeconomic impacts on individuals and communities located in the vicinity of the proposed mine resulting from mine construction and operation. The report was deemed complete by DOGAMI along with the Environmental Evaluation on October 3, 2024 (see Section IV).

e. OAR 632-037-0118 - BEST AVAILABLE PRACTICABLE AND NECESSARY TECHNOLOGY

Chemical process mining, including extraction, processing, and reclamation, must be undertaken in a manner that minimizes environmental damage through the use of the best available, practicable and necessary technology to ensure compliance with environmental standards. OAR 632 –037-0118(2) describes the process by which the TRT determines the best available, practicable, and necessary technology and recommends it to DOGAMI. The TRT’s determination must be made with reference to the policies expressed in ORS 517.953 and ORS 517.956. Once the TRT has completed the process, DOGAMI will require the applicant to use the identified best available, practicable, and necessary technology to ensure compliance with the environmental standards. If the TRT or DOGAMI are unable to identify the necessary technology that is available and practicable, DOGAMI shall not issue a final permit.

The TRT followed the process required by OAR 632-037-0118(2). The best available, practicable, and necessary technology options for the Project were approved by the TRT during a TRT meeting on March 6, 2025. A copy of the identified best available, practicable, and necessary technology, including a description of the process that resulted in the selection of the technology, is attached as Appendix B<sup>5</sup> and incorporated herein.

***Condition 101 (ACDP):*** The permittee must provide the highest and best practicable treatment and control of air contaminant emissions in every case so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling and other deleterious factors at the lowest possible levels.

***Condition 186 (WPCF-N):*** The permittee must conduct all activities in a manner that minimizes environmental damage through the use of best available, practicable and necessary technology. Any changes to incorporate future advancements in technologies must be approved by DEQ in writing.

***Condition 317 (Permit to Appropriate the Public Waters):*** This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

***Condition 345 (Consolidated Operating Permit):*** The permittee must use the best available, practicable, and necessary technology for the mining operation, including extraction, processing, and reclamation, to ensure compliance with environmental standards.

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<sup>5</sup> Letter from DOGAMI to the Applicant dated May 30, 2025 (March 6, 2025, Technical Review Team Approval of Best Available Practicable and Necessary Technology for Proposed Grassy Mountain Mine, Calico Resources USA Corp. Grassy Mountain Mine Project)

Technology options including, but not limited to, those approved by the Technical Review Team on March 6, 2025, must be incorporated into the project.

f. OAR 632-037-0120 - MINE OPERATION STANDARDS

OAR 632-037-0120 requires a mining operation to comply with the following mine operation standards:

- (1) Mine facilities have been designed to handle the 100-year, 24-hour precipitation event, at a minimum.

The Grassy Mountain area climate is typical of a cold desert environment with average annual precipitation of 10 inches, which mainly falls as snow in winter. Precipitation is generally lost to evaporation with a portion of the balance infiltrating the ground surface to recharge groundwater.

Precipitation that falls directly within the process plant area would be collected in a system of ditches and culverts and directed by gravity toward the collection pond, adjacent to the TSF. The dual-lined collection pond is sized to contain the runoff from a 100-year, 24-hour storm event, which is the equivalent of 2.2 inches. Drainage gravel would be included between the liners representing a leak detection zone paired with a leak detection system connected to downgradient groundwater monitoring wells and sumps. Sensors would also be installed in the leak detection system equipped with the capacity to recover potential leaked material.

The TSF has also been designed with stormwater diversion channels at the top of the embankment to prevent stormwater from flowing into the supernatant pond and exerting additional hydrostatic pressure on the buried liners and the supernatant dam. The permanent stormwater diversion channels were designed to handle up to the 500-year, 24-hour storm event while the temporary stormwater diversion channels were sized for the 100-year, 24-hour storm event (see Appendix C4 [Tailings Design Report] of the CPA). The following conditions are included in DEQ's WPCF-N permit to ensure that the facility remains capable of handling the 100-year, 24-hour precipitation event throughout the life of the facility:

**Condition 216 (WPCF-N):** The permittee must conduct annual leak integrity tests of all Mill and process area sumps. Repairs or replacement of any sump that fails will occur within two weeks of discovery.

**Condition 217 (WPCF-N):** The permittee must conduct regular monitoring and reporting of all underdrain systems including the Tailings Storage Facility, Temporary Waste Rock Storage Facility and any other leak detection system.

(2) An interim vegetative cover of stockpiles of topsoil or overburden materials that will be used in reclamation shall be required to prevent erosion or fugitive dust release from the overburden storage or spoils area.

The Consolidated Operating Permit includes the following condition, which requires compliance with this standard.

**Condition 5 (Consolidated Operating Permit):** *Stockpiles of topsoil or overburden materials that will be used in reclamation are required to have an interim vegetative cover to prevent erosion or fugitive dust release from the overburden storage or spoils area [OAR 632-037-0120(2)].*

(3) Any standard adopted by rule by any permitting or cooperating agency related to the operation of a mining operation.

The Consolidated Operating Permit includes the following conditions, requiring compliance with all permit terms and conditions for permits issued by permitting agencies, and compliance with all approved plans that implement standards adopted by rule by any permitting or cooperating agency related to the operation of a mining operation:

**Condition 32 (Consolidated Operating Permit):** *The permit holder must comply with ORS Chapter 517, the rules adopted by the department (DOGAMI), this Operating Permit, and all approved plans submitted as part of the CPA, including: Operating Plan dated October 2023; Reclamation Plan dated August 2025; Tailings Chemical Monitoring Plan dated August 2023; Waste Management Plan dated March 2023; Stormwater Pollution Control Plan dated March 28, 2023; Project Quality Plan - Processing dated May 14, 2019; Emergency Response Plan dated May 2023; Toxic and Hazardous Substances Transportation and Storage Plan dated November 2021; Cyanide Management Plan dated January 2023; Petroleum-Contaminated Soils Management Plan dated October 2022; Interim Management Plan dated December 2021; Monitoring Well Plan dated September 2022; Safety Training Plan dated November 2021; Wildlife Protection Plan dated August 2023; Wildlife Protection Plan dated August 2023; Wildlife Mitigation Plan dated August 2023; Supplement to Wildlife Mitigation Plan dated May 19, 2025; Inadvertent Discovery Plan dated October 2022; Noxious Weed Monitoring and Control Plan dated April 2023; Spring and Seep Monitoring and Mitigation Plan dated May 14, 2025; Noise Monitoring Plan dated May 2023; Wildfire Mitigation Plan dated February 2024.*

**Condition 68 (Consolidated Operating Permit):** *Throughout the construction, operation, and reclamation of the Project, the Permit Holder must comply with all applicable state and federal environmental quality statutes, rules, and standards, and all applicable permit requirements of other state agencies.*

DOGAMI has incorporated permit conditions submitted by cooperating agencies to ensure compliance with standards adopted by rule by the cooperating agencies related to the mining operation.

- (4) No loss of existing critical habitat of any state or federally listed threatened or endangered plant species, as determined by ODA.

One threatened plant species and one endangered plant species were identified in two areas within the access road area proposed for widening and upgrades. The identified species are located on federal land. No critical habitat occurs within the study area (Section 3.4.3.1 of the Environmental Evaluation). Based on communication with ODA staff, the agency's jurisdiction over threatened and endangered plant species does not include federal land.

g. OAR 632-037-0125 - FISH AND WILDLIFE STANDARDS

DOGAMI shall require a mining operation to comply with protection standards for fish and wildlife consistent with ODFW policies, including:

- (1) Protective measures to maintain an objective of zero wildlife mortality.

This requirement is satisfied by the Wildlife Protection Plan (and Condition 32 above, which requires compliance with the Wildlife Protection Plan), as well as conditions specific to monitoring and reporting, required wildlife exclusion measures, facility inspection requirements, and minimization of vehicular traffic. These conditions include Conditions 12, 15, 16, 18, 22, 23, 300, and 326 below.

- (2) All chemical processing solutions and associated wastewater must be covered or contained to preclude access by wildlife, or maintained in a condition that is not harmful to wildlife.

This requirement is satisfied by Condition 300 (below), which requires wastewater to be maintained in a condition not harmful to wildlife.

- (3) Onsite and offsite mitigation ensuring there is no overall net loss of habitat value.

This requirement is satisfied by the Wildlife Mitigation Plan, dated August 7, 2023, and the Supplement to Wildlife Mitigation Plan, dated May 19, 2025, and conditions related to these plans (Condition 15 [below] and Condition 32 [above]).

- (4) No loss of existing critical habitat of any state or federally listed threatened or endangered fish or wildlife species.

This requirement is satisfied by the Wildlife Mitigation Plan, dated August 7, 2023, and the Supplement to Wildlife Mitigation Plan, dated May 19, 2025, and conditions related to these plans (Condition 15 [below] and Condition 32 [above]).

(5) Any other standard adopted by rule by the ODFW applicable to a mining operation.

ODFW has identified its Habitat Mitigation Policy (OAR Chapter 635, Division 415) and Greater Sage-Grouse Conservation Strategy for Oregon (OAR Chapter 635, Division 140) as rules applicable to a mining operation. This standard is satisfied by the Wildlife Mitigation Plan, dated August 7, 2023, and the Supplement to Wildlife Mitigation Plan, dated May 19, 2025, and conditions related to these plans (Condition 15 [below] and Condition 32 [above]).

The conditions listed below are based on Division 37 requirements and are contained in the Consolidated Operating Permit.

**Condition 9 (Consolidated Operating Permit):** *Activities permitted through this Consolidated Permit shall comply with ODFW administrative rules for chemical process mining (OAR 635-420), compensatory mitigation for wildlife habitat (OAR 635-415) and Greater Sage-Grouse habitat (OAR 635-140).*

**Condition 10 (Consolidated Operating Permit):** *ODFW conditions are only applicable to ore extracted and activities within the Grassy Mountain permit boundary, as approved in this consolidated permit. Wildlife and wildlife habitat impacts have not been analyzed outside of this boundary. Ore cannot be extracted outside of the Grassy Mountain permit boundary and processed at the Grassy Mountain mine site without a consolidated permit amendment.*

**Condition 11 (Consolidated Operating Permit):** *All episodic noise producing activities and disturbance shall be conducted outside of the timing restrictions as detailed in Section 5.1 of the Wildlife Mitigation Plan.*

**Condition 12 (Consolidated Operating Permit):** *All reports shall be submitted to: ODFW Wildlife Habitat Biologist, ODFW Malheur District Office, 3814 Clark Boulevard, Ontario, OR 97914.*

**Condition 15 (Consolidated Operating Permit):** *Monitoring results as detailed in the approved Wildlife Protection Plan shall be submitted quarterly using an ODFW approved form to the ODFW Malheur Watershed District Office.*

**Condition 16 (Consolidated Operating Permit):** *Permittee shall comply with measures to avoid and minimize vehicular and public impact on wildlife. Busing of employees is required. Permittee shall report quarterly on the number of regular production staff bussed daily and the total daily vehicle trips by all staff, including contractors, to the mine.*

**Condition 18 (Consolidated Operating Permit):** *Permittee shall comply with the following inspection schedule, to be included in the monitoring reports: (a.) The perimeter*



fence shall be inspected for damage weekly. Monitoring frequency may be adjusted in the future with concurrence from ODFW; (b.) The TSF and reclaim water pond shall be inspected for wildlife injury or mortality daily; and (c.) Power pole perch deterrents shall be inspected annually, at 3-week intervals, from March 15 to June 30. If nests or portions of nests are found, Permittee shall notify ODFW, U.S. Fish and Wildlife Service (USFWS), and Idaho Power Company within 24 hours of discovery.

**Condition 21 (Consolidated Operating Permit):** Permittee shall satisfy the wildlife mitigation requirements in accordance with OAR 635-420-0060 through implementation of a Wildlife Mitigation Plan approved by ODFW and the TRT, consistent with OAR 635-415 and OAR 635-140. Permittee is responsible for providing compensatory mitigation as determined by the ODFW Habitat Quantification Tool on 1/19/2021 and as identified in the Wildlife Mitigation Plan, dated 8/7/2023 and the Wildlife Mitigation Plan Supplement, dated 5/19/2025. The mitigation obligations, as determined in these plans, may be subject to change with ODFW concurrence prior to issuance of a final consolidated permit. Per the dates of the Habitat Quantification Tool and Wildlife Mitigation Plans cited above, the Permittee is responsible for:

- a) 700.6 functional acres of Greater Sage-Grouse habitat;
- b) 169.5 acres of Mule Deer Winter Range habitat; and
- c) 450 acres of other wildlife habitat.

**Condition 22 (Consolidated Operating Permit):** Permittee must monitor wildlife injury and mortality, and submit quarterly reports to the ODFW Malheur Watershed District Office.

**Condition 23 (Consolidated Operating Permit):** The Permittee shall be held liable for any wildlife injury or mortality. The issuance of a chemical process mining permit does not relieve the Permittee from liability for wildlife injury or mortality resulting from acts conducted pursuant to the conditions of the permit.

**Condition 294 (Consolidated Operating Permit):** No mine construction or ground-disturbing activities associated with the mining infrastructure are authorized until the Permittee has obtained written concurrence from the TRT that mitigation requirements have been met.

**Condition 295 (Consolidated Operating Permit):** The mitigation measures identified in the ODFW and TRT approved Wildlife Mitigation Plan shall be implemented prior to any mine construction or ground-disturbing activities associated with the mining infrastructure consistent with the following:

- a) **Third Party Payment-to-Provide:** Permittee must provide verification of credits to offset 700.6 acres functional Greater Sage-Grouse Habitat, 169.5 acres of

Mule Deer Winter Range Habitat and 450 acres of other wildlife habitat obtained from an ODFW approved mitigation bank to ODFW at least 90 days prior to any mine construction or ground-disturbing activities associated with the mining infrastructure.

b) *Third Party Payment-to-Provide: Permittee must provide verification of credits to offset 700.6 acres functional Greater Sage-Grouse Habitat, 169.5 acres of Mule Deer Winter Range Habitat and 450 acres of other wildlife habitat obtained from an ODFW approved mitigation bank to ODFW at least 90 days prior to any mine construction or ground-disturbing activities associated with the mining infrastructure.*

c) *Payment to ODFW Sage-Grouse Mitigation Program In-Lieu Fee Fund: Permittee must provide verification of purchasing In-Lieu Free credits at least 90 days prior to any mine construction or ground-disturbing activities associated with the mining infrastructure to offset 700.6 functional acres of Greater Sage-Grouse habitat. Purchase of In-Lieu Fee credits will only provide compensatory mitigation for impacts to Greater Sage-Grouse habitat. Permittee must also provide compensatory mitigation for impacts to 169.5 acres of Mule Deer Winter Range and 450 acres of other wildlife habitat using Third Party Payment-to-Provide or Permittee-Responsible Mitigation.*

**Condition 300 (Consolidated Operating Permit):** All associated wastewaters shall be maintained in a condition that is not harmful to wildlife.

**Condition 301 (Consolidated Operating Permit):** Permit is not transferable without DOGAMI authorization. (See OAR 632-030-0041).

**Condition 302 (Consolidated Operating Permit):** Permit modifications shall be submitted in accordance with OAR 632-037-0145. Significant permit modifications require Project Coordinating Committee review.

**Condition 326 (Consolidated Operating Permit):** Install a fencing perimeter (using wildlife-friendly fence specifications) that encompasses the spring discharge and monitoring well(s) that will prevent livestock encroachment.

**Condition 333 (Consolidated Operating Permit):** Permittee shall submit to ODFW in writing any proposed modifications to the Wildlife Mitigation Plan. Any modifications to the Wildlife Mitigation Plan and compensatory mitigation requirements must be evaluated and approved by ODFW. Significant permit modifications require Project Coordinating Committee review per OAR 632-037-0145.

h. OAR 632-037-0130 - RECLAMATION AND MINE CLOSURE STANDARDS

Per OAR 632-037-0130, a mining operation must comply with reclamation and mine closure standards utilizing the best available, practicable and necessary technology to ensure compliance with environmental standards. The amount of the financial security shall be calculated on the basis of the estimated actual cost of reclamation and closure, as well as environmental protection costs based on the credible accident analysis.

On March 18, 2024, DOGAMI and BLM entered into a Memorandum of Understanding (MOU)<sup>6</sup> to establish coordination for joint responsibilities related to the administration and reclamation of lands disturbed by Grassy Mountain mining operations on private and federal lands. The MOU also provides the agencies with the ability to hold a joint reclamation bond that covers both private and federal lands and to prevent delay and avoid duplication of administration and enforcement. The primary goal of the MOU is to prevent “unnecessary or undue degradation” of federally managed lands and “unacceptable adverse impacts” of federally managed and private lands and minimize adverse environmental impacts on surface resources. As of the publication of this draft order, the joint reclamation bond is being developed by DOGAMI and BLM and must be in place prior to any ground disturbing activities associated with the Project.

The conditions listed below to ensure compliance with the standards of this rule are specific to Division 37; however, Division 37 requirements pertaining to other agencies, including ODFW, are also included, as appropriate. Furthermore, a DEQ permit condition is presented regarding the inclusion of credible accidents in the financial assurance calculation(s) and process. Ultimately, there will be a joint bond for reclamation and a separate discrete bond to handle credible accidents.

***Condition 25 (Consolidated Operating Permit):*** Powerline removal cost is included in the Permittee’s Reclamation Plan closure cost estimate. To ensure power poles will be removed at end of mine life, appropriate language shall be placed in any agreement with Idaho Power Company stating that all powerlines and power poles constructed to service the mine will be removed during mine reclamation.

***Condition 26 (Consolidated Operating Permit):*** Permittee shall submit a report to ODFW for certification of a self-sustaining ecosystem following reclamation. ODFW will evaluate the success of habitat restoration and provide recommendations to DOGAMI on the Permittee’s request for release or reduction of financial security.

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<sup>6</sup> Memorandum of Understanding for Mining and Mineral Related Activities at the Grassy Mountain Mine Project in Malheur County, Oregon Between Oregon Department of Geology and Mineral Industries and U.S. Department of the Interior Bureau of Land Management Oregon. Agreement No. No. BLM-ORV0000-01-2024, Subject Function Codes: 1786, 3809. March 18, 2024.

**Condition 68 (Consolidated Operating Permit):** Throughout the construction, operation, and reclamation of the Project, the Permit Holder must comply with all applicable state and federal environmental quality statutes, rules, and standards, and all applicable permit requirements of other state agencies. Noncompliance constitutes a violation of this Permit.

**Condition 261 (WPCF-N):** Financial assurance accessible by permitting agencies shall be adequate to pay all costs including; site closure, post-closure care, and a estimate conceptual “worst-case” closure plan associated with a corrective action, such as the potential release of contaminants described in the Appendix B of the Environmental Evaluation, Analysis of Credible Accidents (Stantec August 16, 2024), OAR 340-043-0025(h). The permittee must prepare the plan according to OAR 340-095-0090. Acceptable mechanisms are described in OAR 340-095-0095.

**Condition 296 (Consolidated Operating Permit):** ODFW shall approve final reclamation seed mix prior to implementation of the reclamation plan.

**Condition 298 (Consolidated Operating Permit):** A cover ratio of 2:1, perennial grass to annual grass shall be part of the reclamation success criteria to show site reclamation is stable or trending towards recovery.

**Condition 299 (Division 37):** Quarterly technical memorandums shall be provided to ODFW following each reclamation monitoring event.

i. OAR 632-037-0135 - FINANCIAL SECURITY

A reclamation bond or alternative security acceptable to DOGAMI is required prior to the start of any construction, excavation or other ground disturbing activity. The purpose of the financial security shall be to allow DOGAMI to meet the requirements of the reclamation and closure plan and to provide protection of surface and subsurface resources. The amount of the financial security shall be calculated on the basis of the estimated actual cost of reclamation and closure and shall not be limited. DOGAMI’s financial security and reclamation standards are laid out in OAR 632-037-0135, and DEQ’s standards and requirements are included in its rules and within the conditions of the draft permit.

The conditions listed below are based on Division 37 requirements and are contained in the Consolidated Operating Permit.

**Condition 2 (Consolidated Operating Permit):** Must maintain a performance bond as required by ORS 517.987.

**Condition 3 (Consolidated Operating Permit):** A reclamation bond or alternative security acceptable to DOGAMI shall be posted before the start of any construction,

881 excavation, or other ground disturbing activity associated with mining operations. [ORS  
882 517.987(2)]

883 **Condition 26 (Consolidated Operating Permit):** Permittee shall submit a report to  
884 ODFW for certification of a self-sustaining ecosystem following reclamation. ODFW will  
885 evaluate the success of habitat restoration and provide recommendations to DOGAMI on the  
886 Permittee's request for release or reduction of financial security.

VIII. PROPOSED CONCLUSIONS AND ORDER OF OREGON DEPARTMENT OF GEOLOGY  
AND MINERAL INDUSTRIES

Based on the findings of fact and conclusions of law in this draft order, DOGAMI proposes to issue a Consolidated Operating Permit consistent with the attached draft Consolidated Operating Permit.

LIST OF APPENDICES

**Appendix A** DRAFT PERMIT LAND USE FINDINGS OF FACT AND CONCLUSIONS OF LAW

**Appendix B** TECHNICAL REVIEW TEAM APPROVAL OF BEST AVAILABLE PRACTICABLE  
AND NECESSARY TECHNOLOGY FOR PROPOSED GRASSY MOUNTAIN MINE,  
CALICO RESOURCES USA CORP., GRASSY MOUNTAIN MINE PROJECT

**NOTICE OF PUBLIC HEARING AND OPPORTUNITY TO COMMENT**

**Proposed Grassy Mountain Mine**

**Draft Permits and Permit Conditions**

The Oregon Department of Geology and Mineral Industries (DOGAMI) and the Oregon Department of Environmental Quality (DEQ) have issued draft permits for the proposed Grassy Mountain Mine. DOGAMI is accepting public comments on the draft permits through February 6, 2026. There will be a public hearing on January 29, 2026, in Vale, OR (with a virtual option) from 5:00 PM to 7:00 PM MST to view presentations on the project and hear public comments. The draft permits and additional information on the public hearing can be viewed online at [https://www.oregon.gov/dogami/mlrr/Pages/Calico-GrassyMtn\\_projectDocuments.aspx](https://www.oregon.gov/dogami/mlrr/Pages/Calico-GrassyMtn_projectDocuments.aspx). Comments should be specific to items in the draft permits and may be submitted in person at the public hearing, by email to [information.grassymtn@dogami.oregon.gov](mailto:information.grassymtn@dogami.oregon.gov), or by U.S. Postal Service mail to Oregon Department of Geology and Mineral Industries, Mineral Land Regulation & Reclamation Program, 229 Broadalbin St SW, Albany, OR 97321-2246. This notice is available in Spanish and can be requested from DOGAMI using the contact methods above.

**Applicant Information**

The applicant is: Calico Resources USA Corp., 665 Anderson Street, Winnemucca, NV 89445.

The proposed Grassy Mountain Mine is in Malheur County, Oregon, located approximately 22 miles south-southwest of Vale, Oregon. Calico is proposing to construct an underground mine, surface mill complex, and tailings storage facility to develop the Grassy Mountain gold resource.

920 **State/Local Agency Contacts**

921 Under Oregon law (ORS 517.952 – 517.989), a consolidated application process is used for  
 922 administering state regulatory requirements for chemical process mines. Most of the  
 923 requirements are consolidated into permits issued by DOGAMI and other state permitting  
 924 agencies. Additional federal, state, and/or local permits may be required.

925 Contacts for DOGAMI, permitting and cooperating agencies, and local government  
 926 responsible for land use approval include:

<i>Agency Name</i>	<i>Address</i>	<i>Contact Person</i>	<i>Phone number</i>
DOGAMI	229 Broadalbin St SW Albany OR 97321	Dayne Doucet	541-619-9713
DEQ	400 E. Scenic Dr., Suite 307 The Dalles OR 97058	Ron Doughten	541-298-7255
Oregon Department of State Lands (DSL)	1645 Forbes Rd NE Ste 112 Bend OR 97701	Michael Schmeiske	503-302-5594
Oregon Water Resources Department (WRD)	725 Summer St NE Ste A Salem OR 97301	Justin Iverson	503-986-0933
Oregon Department of Agriculture (ODA)	635 Capitol St NE Salem OR 97301	Isaak Stapleton	503-931-5608
Oregon Department of Land Conservation and Development (DLCD)	635 Capitol Street NE Suite 150 Salem, OR 97301	Jon Jinings	503-373-0050
Oregon Health Authority (OHA)	500 Summer St NE E-20 Salem OR 97301	William Goss	541-966-0900
Oregon Department of Fish & Wildlife (ODFW)	3814 Clark Blvd Ontario OR 97914	Tom Segal	541-889-6975
Malheur County	251 B St West #12 Vale OR 97918	Kelsie Haueter	541-473-5185

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## **APPENDIX A**

### **GRASSY MOUNTAIN MINE PROJECT**

#### **DRAFT PERMIT LAND USE FINDINGS OF FACT AND CONCLUSIONS OF LAW**

##### **I. LEGAL FRAMEWORK**

For the purpose of making decisions on state-required permits for the proposed Grassy Mountain Mine Project (“Grassy Mountain” or “Project”), compliance with state and local land use laws is governed by ORS 197.180 and OAR Chapter 660, Divisions 030 and 031, which require all permitting agencies to have rules establishing state agency coordination programs. The coordination programs ensure that all agency decisions made as part of a program affecting land use must comply with the statewide land use planning goals and must be compatible with acknowledged city and county comprehensive plans and land use regulations.

Part of the Project is proposed to be located on private land and part on federal land. On May 23, 2019, Malheur County issued a conditional use permit (“CUP”) for the part of the project located on private land (identified as Tax Lot 101 of Malheur County Assessor’s Map No. 22S 44E). On July 30, 2019, the County issued a land-use compatibility statement (“LUCS”) on a form provided by the Department of Environmental Quality. The combination of the CUP and the LUCS provided to DEQ is likely sufficient to comply with each permitting agency’s state agency coordination plans; however, each permitting agency will need to confirm sufficiency while drafting its individual permits. Under the rules governing issuance of DOGAMI’s operating permit, DOGAMI will seek advice on compliance from the PCC and make its decision following receipt of that advice. OAR 660-031-0035(1), which is incorporated by reference in DOGAMI’s rules, allows DOGAMI to use the Malheur County’s compatibility determination. OAR 632-001-0015(5)(b)(D).

The County did not issue a Conditional Use Permit for the part of the project located on federal land (identified as Tax Lot 100 of Assessor’s Map No. 22S 44E). Instead, the County concluded that it did not have jurisdiction to “grant or withhold” any land-use authorization on Tax Lot 100. Malheur County Order No.: GO-05-19, Findings of Fact and Conclusions of Law, at 3 (incorporating by reference Exhibit 1, Staff Report, at 2). The CUP will serve as the basis for determining land-use compatibility for this part of the project. Nonetheless, on August 8, 2021, the County issued a second LUCS purporting to find the proposed Project compatible on both Tax Lots 100 and 101. An undated letter accompanying the second LUCS, signed by Malheur County Planning Director Eric Evans, provides the following explanation:

Calico Resources USA Corp has requested a second land use compatibility statement (LUCS) in order to support its application for a DOGAMI Consolidated Permit, which would address land uses related to the mine facilities on BLM lands, identified as tax lot 100 of Assessor’s Map NO. 22S 44E. The attached materials include findings from the Planning Commission explaining why the mine project as a whole meets all applicable criteria. These findings adopted by [the Malheur County Court] reference the application and staff report, among other documents,



which addressed the entire project area, including the processing facilities on federal land.

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Therefore, while the County has issued a conditional use permit for activities on tax lot 101 only, it has found that the mine site as a whole, including the BLM land components, satisfy the applicable criteria in the Malheur County Code, which implements the County's acknowledged comprehensive plan.

The permitting agencies decline to rely on this letter or the August 8, 2021, LUCS as evidence of the Project's compatibility on Tax Lot 100. The Malheur County Court expressly determined that Tax Lot 100 is "outside the County's land use planning jurisdiction." Malheur County Order No.: GO-05-19, Findings of Fact and Conclusions of Law, at 3 (incorporating by reference Exhibit 1, Staff Report, at 2). Planning Director Evans lacks authority to modify or reverse the Malheur County Court's final decision in this matter. Planning Director Evans' letter is therefore of no legal effect. Similarly, the portion of the August 8, 2021, LUCS that pertains to Tax Lot 100 was issued without authority and is of no legal effect. Nonetheless, the permitting agencies recognize that a significant part of the underlying facts and the County's analysis of Tax Lot 101 will also be applicable to Tax Lot 100. The following land use analysis and findings is structured similarly to the County's Final Findings of Fact and Conclusions of Law, and reflects the County's analysis when the underlying facts and applicable criteria are similar.

Notwithstanding the County Court's determination with respect to Tax Lot 100, state law does not provide an exception to the application of land-use requirements on federal lands. This means that, for the purposes of complying with ORS 197.180, rather than relying on a Malheur County permit determination or LUCS, each permitting agency will apply the provisions of its coordination program that allows for a determination of compliance with land-use requirements based on information provided by the applicant. The Applicant was required to provide all necessary land use information as part of a complete application. ORS 517.971(8)(k). The permitting agencies may also, through DOGAMI, request additional information if necessary to make determinations of compliance with land-use requirements.

#### DOGAMI Process

While each permitting agency's coordination program may differ in certain procedural details, the general approach will be similar. DOGAMI's coordination program is described here as an example. The procedures for a chemical process mine application are as follows:

The department shall assure goal compliance by acting compatibly with applicable acknowledged comprehensive plans in accordance with the procedures in subsection (5)(b) of this rule.

OAR 632-001-0015(5)(a).

When issuing Operating Permits and approving reclamation plans for chemical process mining under OAR 632, division 037, the Department shall consider and

may rely on the findings of the project coordinating committee authorized by ORS 517.965 as to whether or not the proposed permit and reclamation plan are compatible with the acknowledged comprehensive plan(s) in accordance with the applicable comprehensive plan compatibility procedures set forth in OAR 632-037-0045(7)(k), 660-030-0070(2), 660-031-0026(1), and 660-031-0035(1).

OAR 632-001-0015(5)(b)(D).

Of the four rules cited in OAR 632-001-0015(5)(b)(D) as governing DOGAMI's compatibility determination, OAR 632-037-0045(7)(k) is not an existing DOGAMI rule. OAR 660-031-0035(1) governs reliance on the decisions of local governments, which as described above does not apply to the part of the Project on Tax Lot 100. OAR 660-030-0070(2) among other things establishes OAR Chapter 660, Division 031, as a permissible means of determining compliance with a local government's acknowledged comprehensive plan. Therefore, DOGAMI will follow the procedures set forth in 660-031-0035(1):

State Agency Coordination Agreements shall describe the process the agency will use to assure that permit approvals are in compliance with Statewide Planning Goals and compatible with Acknowledged Comprehensive Plans:

(1) Class A Permits: In their review of Class A permits state agencies shall:

(a) Include in the notice for the proposed permit a statement that the proposed activity and use are being reviewed for compliance with the Statewide Planning Goals and compatibility with the Acknowledged Comprehensive Plan as part of the permit review;

(b) Insure that the notice for the proposed permit is distributed to the affected city(ies) or county(ies) and its citizen advisory committee;

(c) When there is a public hearing on a proposed permit, consider testimony on compliance of the proposed activity and use with the Statewide Planning Goals and compatible with the Acknowledged Comprehensive Plan;

(d)(A) Based on comments received from the public and other agencies, determine whether or not the proposed permit complies with the Statewide Planning Goals and is compatible with the Acknowledged Comprehensive Plan;

(B) If a state agency's existing process for administration of Class A permits is substantially equivalent to the process required by this section, the agency may request LCDC approval of its existing process as described in its agency coordination agreement.

This process is consistent with the procedural requirements of the chemical process mining statutes. Each permitting agency must provide its draft permits and permit conditions to DOGAMI. ORS 517.981(1). DOGAMI must then issue a notice of an opportunity for public comment and of a consolidated public hearing. ORS 517.981(2). To comply with OAR 660-031-0035(1), this notice must include a statement that the part of the Project on Tax Lot 100 is being

reviewed for compliance with statewide planning goals and the County's acknowledged comprehensive plan. The notice must be sent to Malheur County and its citizen advisory committee. The public hearing must accept and consider testimony on compliance with land-use requirements. Finally, each permitting agency's final permitting decision must, based on information in the record, including comments timely received, determine compliance with land-use requirements.

As noted above, pursuant to OAR 632-001-0015(5)(b)(D), DOGAMI shall also consider and may rely on any findings made by the Project Coordinating Committee concerning compliance with land-use requirements. The Project Coordinating Committee is not, however, required by statute or rule to make land-use findings.

### DEQ Process

The Applicant must obtain several Project permits from DEQ. DEQ's state agency coordination program is primarily governed by OAR Chapter 340, Division 043. In addition, DEQ's water quality rules for chemical process mines allows DEQ to rely on the determinations "made by the project coordinating committee authorized by ORS 517.965 and by the Department of Geology and Mineral Industries pursuant to their State Agency Coordination Program and OAR 632, divisions 1 and 37." OAR 340-043-0020(3).

DEQ's coordination rules governing air contaminant discharge permits and solid waste disposal permits initially appear to require a LUCS for approval of all applications, without exception for a situation where a local government refuses to act. State Agency Coordination Program Document at 26-27, 29. However, OAR 340-018-0050(2) provides:

(2) The Department shall rely on the compatibility procedures described in Section III, subsection (3), and Section IV, subsections (2), (3), and (4) of the SAC Program document to assure compatibility with an acknowledged comprehensive plan, which include but may not be limited to the procedures described below:

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(d) The Department provides notice to local government prior to initiating land use planning actions of statewide application, or notice to affected local governments prior to initiating an action of site-specific or area-wide application. Dispute resolution procedures pursuant to OAR 340-018-0060 are applied when the Department and local government disagree on plan compatibility;

The rule provides that notice to the local government, and by inference, a determination of compliance by DEQ, is an option available to all permit applications if the local government refuses to act on a LUCS.

### Summary

As described above, state permitting agencies are required to determine goal compliance by determining compatibly with Malheur County's acknowledged comprehensive plan. This requires an evaluation of the proposed Project's compliance with Malheur County's zoning

ordinance and comprehensive plan. The following draft findings make this evaluation and recommend conditions required for compliance.

## **II. PROJECT DESCRIPTION**

The following Project description was provided by the Applicant and will serve as the basis for the land-use analysis:

The Project Access Area is located on public land administered by BLM, and private land controlled by others. The main access to the Mine and Process Plant Area will utilize an upgrade of the existing BLM road and County easements across private land. This road will need to be upgraded to include straightening and widening in portions of the road and have a gravel roadbed. The Road Design Report (Appendix C1) describes the alterations with the road design.

The existing powerline will be upgraded, and a new power line will be constructed along the BLM and county roads. New power poles will be constructed for approximately 25.2 miles from the connection to the existing powerline to the Mine and distribution powerlines within the Permit Area. Details of the power line work are described in HDR's report, Calico – Grassy Mountain, 34.5kV Line (Appendix C6).

In general, the proposed mining and metal processing operations will consist of an underground mine, located in the private parcel, and ore processing facilities, including a conventional mill and TSF, a TWRSF, and other support facilities on BLM-administrated land.

The Project as described in Section 1.3 of the CPA, will include the following major components:

### **On Private Parcel**

- An underground mine, with Mine portal, decline, and ventilation shaft;

### **On BLM Parcel**

- TSF with Tailings Embankment, Tailings Impoundment, and Reclaim Pond;
- TWRSF;
- Process Plant Area, which includes the Process Plant building, control room, crushing facilities,
- conveyors, ore bins, control rooms, CIL processing plant, reagent storage building (including • chemical and reagent storage), gold room, and Collection Pond;
- Infrastructure and ancillary facilities that include Project site main gate and guard house,

- administration office and change house, assay laboratory and sample preparation area, truck
- workshop and warehouse, wash pads, Process Plant workshop and warehouse, meteorological
- station, explosive magazines, parking areas, ore stockpiles, solid and liquid hazardous waste
- storage, and fuel storage and dispensing area;
- Roads, including upgrades to the Twin Springs and Cow Hollow roads, and construction of the
- Mine access, internal access, and Mine haul roads;
- Yards and laydown areas;
- Growth Media Stockpiles;
- Water supply, including Production Wellfield, water pipeline, raw water storage tank, and
- Potable Water Treatment Plant;
- Power supply that includes a power substation (on Idaho Power land), upgraded 14.4 kilovolt (kV) overland power
- transmission system, new 14.4 kV overland power transmission system, onsite power lines, and generators;
- Permanent and temporary stormwater diversion channels;
- Other areas, including the exploration areas, septic system, and perimeter fence;
- Quarry; and
- Reclamation Borrow Areas.

Response to Land Use Comments 480-492 and 494, dated January 30, 2023.

### III. APPLICABLE CRITERIA

The County identified the criteria applicable to the Project on Tax Lot 101. The permitting agencies' analysis of Tax Lot 100 includes each of the County's identified criteria. In addition, the permitting agencies have identified certain additional criteria that are applicable to Tax Lot 100. The complete list of criteria applicable to Tax Lot 100 are listed below.

As with Tax Lot 101, Tax Lot 100 of Malheur County Assessor's Map 22S 44E is zoned as Exclusive Range Use (ERU; GIS Code C-A2).<sup>1</sup> Mining and processing of mineral resources is a conditional use in the ERU Zone and is subject to Malheur County Zoning Ordinance (MCZO) Section 6-4-7. MCZO 6-3A-3(E).

#### 1. General Conditional Use Criteria MCC 6-6-7 – General Criteria to Evaluate

**Suitability:** In considering the suitability of proposed conditional uses, the Planning Condition shall base its decision on the following criteria:

A. Comprehensive Plan goals and policies, as applicable.

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<sup>1</sup> [Malheur County Online Map \(arcgis.com\)](https://arcgis.com)

For its evaluation of the Project on Tax Lot 101, the County identified the following Comprehensive Plan Goals and Policies as applicable

Goal 3 “Agricultural Lands” Policies 1, 2, 6-8

Goal 5 “Open Space, Scenic and Historic Areas, and Natural Resource,” “Mineral and Aggregate Resources” Policy 3, “Fish and Wildlife Habitat” Policy 2, “Water Resources” Policy 3 and 4

Goal 9 “Economy” Policies 4, 5, and 7

Goal 11 “Public Facilities and Services,” “Fire and Police Protection” Policy 2, “Water and Sewage” Policy 1

Goal 12 “Transportation,” Policy 20.

In addition, the permitting agencies have identified the following Comprehensive Plan Goals and Policies as applicable:

Goals 6, Policies 12 and 13

Goal 7, Policy 12

Goal 8, Policies 3 and 8

B. Specific Plans: Specific plan recommendations.

C. Developments And Viewpoints: Existing development and viewpoints of property owners in the surrounding area.

D. Services And Utilities: Availability of services and utilities.

E. Effect: The effect of the proposed use on the stability of the community's social and economic characteristics.

F. Fish And Wildlife: It does not interfere with traditional fish and wildlife use of habitats determined critical or sensitive in the fish and wildlife habitat protection plan for Malheur County. (Ord. 86, 12-7-1993)

G. General Criteria:

1. Increasing setbacks of structures to reduce possibilities of overshadowing adjoining property, noise, odor or night lighting nuisances.

2. Landscaping improvements for the visual benefit of the subject site and for the improved appearance of the neighborhood and county.

3. Location and size of driveway access points and right-of-way widening and improvement for present and future traffic circulation consistent with the adopted county road standards or the standards of the appropriate road district and the access management standards of the Malheur County transportation system plan.

4. Visual screening of outdoor waste and storage areas.

5. Control and focusing of outdoor lighting to avoid glare being directed beyond property limits.

6. Special criteria listed below, as applicable. (Ord. 125, 6-20-2000)

H. Allowance Of Certain Uses: A use allowed under section [6-3A-3](#) of this title shall be approved only where it is found that the use will not:

1. Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or

2. Significantly increase cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use. (Ord. 86, 12-7-1993)

## **2. Specific Conditional Use Criteria**

### **MMC 6-4-7: Mining in Exclusive Farm Use Zone**

A. A land use permit is required for mining more than one thousand (1,000) cubic yards of material.

## **IV. FINDINGS OF FACT**

### **MCC 6-6-7 - GENERAL CRITERIA TO EVALUATE SUITABILITY**

In considering the suitability of proposed conditional uses, the permitting agencies shall base their decision upon the following criteria:

**A. Comprehensive Plan Goals: Comprehensive plan goals and policies, as applicable**

**GOAL 3: To preserve and maintain the agricultural land in the county for agricultural purposes.**

*Policy 1.* Public and private land classified by the Natural Resources Conservation Service (formerly U.S. Department of Agriculture Soil Conservation Service) as being in Capability Classes I through VI, as well as High Value Farmland as defined by applicable Oregon Revised Statutes and Oregon Administrative Rules and any other lands determined to be necessary and required for farm use, are considered to be agricultural lands.

*Policy 2.* High Value Farmlands (ORS and OAR designated) shall be given the greatest protection. Lands classified by the Natural Resources Conservation Service, as Capability Classes I through VI shall be afforded the next highest protection with Class I having the highest protection and Class VI the least.

The lands within the Project Area in Tax Lot 100 are not high-value farmlands.

“High Value Farmland” is not defined in the County’s Comprehensive Plan or the MCZO. Instead, the policy relies on unspecified “applicable Oregon Revised Statutes and

Oregon Administrative Rules.” Accordingly, the permitting agencies rely on the definition of high-value farmland in ORS 215.710:

(1) For purposes of ORS 215.705, high-value farmland is land in a tract composed predominantly of soils that, at the time the siting of a dwelling is approved for the tract, are:

(a) Irrigated and classified prime, unique, Class I or Class II; or

(b) Not irrigated and classified prime, unique, Class I or Class II.

(2) In addition to that land described in subsection (1) of this section, for purposes of ORS 215.705, high-value farmland, if outside the Willamette Valley, includes tracts growing specified perennials as demonstrated by the most recent aerial photography of the Agricultural Stabilization and Conservation Service of the United States Department of Agriculture taken prior to November 4, 1993. For purposes of this subsection, “specified perennials” means perennials grown for market or research purposes including, but not limited to, nursery stock, berries, fruits, nuts, Christmas trees or vineyards but not including seed crops, hay, pasture or alfalfa.

ORS 215.710.

The lands within the Project Area in Tax Lot 100 are not classified as Class I through Class VI soils by the USDA’s Natural Resources Conservation Service. The lands are not irrigated and do not have the characteristics necessary to qualify as either “prime” or “unique” farmland as defined by the USDA. Finally, the land is managed by the BLM for grazing, so is not used for the growing of “specified perennials.” Response to Land Use Comments 480-492 and 494, dated January 30, 2023, at 5; Appendix B7 at 201; Appendix B10 at 11. The conclusions are consistent with the County’s findings with respect to Tax Lot 101.

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*Policy 6.* The county will review and consult with the irrigation and drainage districts on land use decisions to assure they will not negatively impact the integrity or operation of water for irrigation or drainage purposes.

With respect to Tax Lot 101, the County found that the parcel was not part of any irrigation or drainage district. Exhibit 1 at 7-8. Tax Lot 100 is not irrigated. Response to Land Use Comments 480-492 and 494, dated January 30, 2023, at 5. Process water for the Project will be provided by wells under permits that must be obtained from the Water Resources Department before commencing water use. Exhibit 1 at 7-8. The part of the Project on Tax Lot 100 will not negatively impact the integrity or operation of water for irrigation or drainage purposes.

*Policy 7.* In addition to county code and the State of Oregon’s land use laws and administrative rules for non-farm dwelling, it is the policy of Malheur County that there be no net loss of farmlands listed on High Value Farmlands Soils list or soils classified as types I-III by the Natural Resources Conservation Service.



As described in the analysis of Policies 1 and 2, above, Tax Lot 100 does not have soils that qualify as high-value farmland soils or soils classified as types I-III by the NRCS.

*Policy 8.* Current and future accepted farming and ranching practices and activities shall have priority and continue without interference.

The County, in evaluating Tax Lot 101, interprets this policy not to outright prohibit a change of use on farming or ranching land owned or controlled by the Applicant. Instead, the policy is intended to ensure the future viability of farming and ranching practices on surrounding lands. Exhibit 1 at 8.

The Applicant provided the following information to the County concerning the effects of the Project on surrounding farming and ranching activities:

The Access Road within the area of active farming will be within an existing County right-of-way. To the extent that surrounding open range is used for seasonal ranching in the vicinity of the Project Area, interference between livestock and mining activities will be prevented by fencing that will enclose the entire Project Area.

Exhibit 1 at 8.

The County concluded that this policy is met on Tax Lot 101, because the mine is underground, thus mitigating impacts of blasting on livestock, the Project Area will be fenced to exclude livestock, and the draft reclamation plan provided by the Applicant supports the conclusion that the Patent Parcel can be returned to grazing upon the completion of Reclamation.

All the factors listed by the County are equally applicable to Tax Lot 100. In addition, the permitting agencies conclude that it is necessary to evaluate the effects of noise and dust on grazing livestock.

The Applicant has provided the following evidence in support of noise impacts:

Sound levels contours developed by BKL (2023) for the Project do not project levels expected to impact grazing by livestock. According to Dr. Salah Hamed Esmail (2017), "Cattle may tolerate moderate levels of noise and may easily adapt to an intensity level of 60-90 dB." He further concludes a behavioral response for cattle is expected between 80 and 90 dB. Owen (2017) reported that livestock can habituate reasonably quickly to loud sounds 90-120 dBA based on rail train development studies in the UK. Grazing is not expected to be impacted with noise based on model predictions. Noise monitoring will be conducted to confirm model predictions, as noted in CPA Appendix D19, Noise Monitoring Plan.

Submittal Response to Land Use Comments 484, 487, and 489-492, dated May 24, 2023, at 8 (Internal citations omitted). Based on this evidence, the permitting agencies find that noise impacts from the facility will not interfere with current farming and ranching practices in the vicinity of the Project.

Dust impacts are primarily addressed through the Air Contaminant Discharge Permit (ACDP) that the Applicant must obtain in order to construct and operate the Project. Among other provisions, OAR 340-208-0300 requires that “air contaminants from any source,” including dust emissions, not cause a nuisance. The permitting agencies find that a condition requiring the Applicant to obtain and comply with the ACDP is sufficient to conclude that dust emissions will not interfere with current farming and ranching practices in the vicinity of the Project.

**GOAL 5: To conserve open space and protect natural and scenic resources.**

With respect to Tax Lot 101, the County identified certain applicable policies within Goal 5. The permitting agencies address each of these policies. The permitting agencies have identified additional Goal 5 policies applicable to Tax Lot 100, each of which is addressed below.

Mineral and Aggregate Resources

*Policy 1.* The county will continue to study mineral and aggregate sites throughout the county to determine the precise location, quality and quantity of these resources.

*Policy 2.* The county will establish land use regulations that protect mineral and aggregate resources from incompatible uses.

*Policy 3.* The county will cooperate with other government agencies in the enforcement of mining regulations.

With respect to Tax Lot 101, the County determined that each of these three policies are planning statements applicable to the County and not to individual applications. The permitting agencies concur with respect to Tax Lot 100.

Fish and Wildlife Habitat

*Policy 2.* The county will consider the impacts of proposed development on fish and wildlife habitats when making land use decisions.

*Policy 3.* The Oregon Department of Fish and Wildlife’s “Fish and Wildlife Habitat Protection Plan” will be recognized as a guideline for planning decisions.

With respect to part of the Project on Tax Lot 101, the County cursorily concluded that the Project “will not have a significant permanent adverse effect on fish or wildlife habitat.” The County noted that ODFW’s “Fish and Wildlife Habitat Protection Plan” has been superseded by ODFW’s Fish and Wildlife Habitat Mitigation Policy, and that the Applicant must comply with the Habitat Mitigation Policy.

The permitting agencies conclude that compliance with the Habitat Mitigation Policy (OAR Chapter 635, Division 415) and the Greater Sage Grouse Conservation Strategy for Oregon (OAR Chapter 635, Division 140) is sufficient evidence of compliance with Goal 5, Fish and Wildlife Habitat Policies 2 and 3. The permitting agencies incorporate the findings and

conclusions of the ODFW Habitat Quantification Tool, dated 1/19/2021, the Wildlife Mitigation Plan, dated 8/7/2023, and the Wildlife Mitigation Plan Supplement, dated 5/6/2025.

### Water Resources

*Policy 2.* The county will implement its water quality management plan.

The County did not address this policy in its review of the part of the Project on Tax Lot 101. The permitting agencies find that it is applicable to Tax Lot 100, but that the county's water quality management plan will be addressed through the water quality permits that the Applicant will be required to obtain through the Department of Environmental Quality. The permitting agencies incorporate the findings and conditions with respect to the required DEQ permits herein.

*Policy 3.* The county will continue to consult the County Sanitarian in land use decisions.

With respect to Tax Lot 101, the County stated that it "provided public notice of the Application to the County Environmental Health Department per the requirements of this policy. The county Sanitarian did not raise any concerns with this application." Exhibit 1 at 12. Similarly, and consistent with applicable state agency coordination program requirements, the permitting agencies will provide notice of these draft land use findings to the County Environmental Health Department when the draft permits are issued and noticed.

*Policy 4.* The county will notify and consult with appropriate state agencies during review of development proposals that might affect surface or groundwater quality.

The County noted its compliance with this policy for Tax Lot 101. This policy is inapplicable to the state permitting agencies.

### Historic Sites

*Policy 3.* The county will cooperate with the Bureau of Land Management in its efforts to preserve and protect the archeological and historic sites located on public land.

The County did not address this policy in its review of the part of the Project on Tax Lot 101. The permitting agencies find that it is applicable to Tax Lot 100. The permitting agencies are cooperating with the Bureau of Land Management through the Project Coordinating Committee.

*Policy 4.* The county will protect its significant historic structures from conflicting uses, including major exterior alteration and demolition, by proceeding through steps 2 and 3 of the Goal 5 rule process on a site-specific basis at such time as conflicting uses are proposed. All alternatives for protection will be examined and the State Historic Preservation Office will be notified and permitted to comment.

The County did not address this policy in its review of the part of the Project on Tax Lot 101. The permitting agencies find that it is applicable to Tax Lot 100. The County has not identified any "significant historic structures" within the project area, including Tax Lot 100. In evaluating compliance with Policy 4, the permitting agencies rely on a memorandum prepared at

the direction of DOGAMI by Mackenzie Hughes, MS RPA, with Stantec Consulting. Comprehensive Summary of Cultural Resources Compliance conducted in support of the DOGAMI Consolidated Mining Permit Process for the Grassy Mountain Mine Project, Malheur County, Oregon, dated October 23, 2025. The memorandum states that 14 built environment resources have been identified in the project area. Of these, 13 have been determined not to be eligible for listing under the National Register of Historic Places. Memorandum at 14. The remaining built environment resource is categorized as “unevaluated.” It is located on private land. Memorandum at 34. The Memorandum recommends avoidance as appropriate mitigation to protect this unevaluated built environment resource. With the incorporation of this condition, the permitting agencies conclude that the applicant has demonstrated compliance with Policy 4.

**GOAL 6: To maintain and improve the quality of Malheur County's air, water and land resources.**

The County did not address any Goal 6 policies in its review of the part of the Project on Tax Lot 101. The permitting agencies find policies 12 and 13 applicable to Tax Lot 100.

*Policy 12.* The effects of transportation, industry, and other sources of excessive noise will be considered in evaluating proposed uses and development.

The Applicant has provided the following evidence pertaining to the sources and effects of noise from the Project<sup>2</sup>:

The Noise Baseline Report (Appendix B11) approved by the TRT as a part of the Consolidated Permit Application (CPA) identifies two noise-sensitive areas, noted as Site B and Site D. The distance from Site B to the SE corner of the Plan of Operations (PoO) where mining operations will occur is approximately 6.1 miles. The distance from Site D to the NE corner of the PoO where mining operations will occur is approximately 15.9 miles. Thus, the mining is exempt with the distance criteria above as it relates to the ORS 467 (more than 0.5 mile).

A Noise Baseline Report (Appendix B11) was prepared for the project as part of the CPA and approved by the TRT. Maximum permissible environmental noise levels for noise-sensitive properties, quiet areas, and impulsive noise levels are identified for the Project. Pre-existing ambient noise levels will be determined and used to demonstrate compliance. Two sites were identified as noise-sensitive properties – Lake Owyhee State Park and a residential site along Russell Road. The baseline report proposed ambient noise limits for the Project consistent with OAR 340 Division 35. OAR 340 Division 35 also restricts blasting and impulse sounds.

Goal 6, Policy 12 requires the effects of transportation, industry, and other sources of excessive noise be considered in evaluating proposed uses and development. Malheur County has considered the effects of noise with the approval of the land use application and staff findings for the Project. The applicant has also modeled noise levels for the Project during construction, blasting, and operational phases.

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<sup>2</sup> Noise baselines and Project noise are also addressed in Section 2.11 of the Consolidated Permit Application.

After construction, blasting and drilling activities will occur underground, as noted in the approved land use application. This will minimize noise associated with the Mine. Ongoing noise would be associated with trucks and vehicles using the haul road and mechanical sounds associated with the Processing Plant.

BKL, acoustics consultant, conducted a noise analysis for the proposed Project. BKL's Noise Model Summary<sup>1</sup> is a part of CPA new Appendix D19, Noise Monitoring Plan. This project predicted noise levels for the proposed Project for both the construction and operational phases. Details of the modeling software, noise metrics, and noise sources included are found in the report as an appendix to the Noise Monitoring Plan.

The metrics regulating noise produced by the project during construction and during operation are cited in OAR 340 Division 35 and detailed in the Noise Baseline Report (Appendix B11) as Table 1, Table 2, and Table 3. All metrics in accordance with OAR 340 Divisions 35 are to be measured at an appropriate measurement point, with those measurement points further being classified as Noise-Sensitive Property, and the more restrictive Quiet Area. For the Grassy Mountain Mine, two points are applicable to the regulation. Lake Owhyee State Park is considered a Quiet Area and is located approximately 6.5 miles from the Permit Area. The other noise-sensitive property is a residence located at 2025 Bishop Road, Vale, Oregon.

For the analysis, noise contours as decibels were developed to illustrate projected noise for construction, operation, and blasting. The most restrictive metric for the project is the Nighttime Quiet L50 at 45 dBA.

For construction, the 45 dBA contour tends to average approximately or within the property boundary to 0.5 mile away. For the operation, the 45 dBA contour tends to average approximately 0.5 mile away. Both Lake Owhyee State Park and the residence are several miles away and far beyond the predicted 45 dBA contour. Compliance with OAR 340 Division 35 is expected based on model predictions for both construction and operation scenarios. For blasting, the maximum allowable noise level during the day is 98 dBC, with the predicted dBC contour completely within 0.5 mile of the property boundary, so compliance with OAR 340 Division 35 is also expected during blasting activity.

Goal 6, Policy 12 of the Malheur County Comprehensive Plan requires consideration of the Project's noise productions without specifying metrics. Goal 6, Policy 13 requires, for the County's purposes, compliance with the State's regulations around noise. The modeling performed (BKL, 2023) predicts compliance with OAR 340 Division 35. Additionally, the State's regulations are expected to be adhered to within approximately 0.5 mile of the project, so consideration for the County's goals is also expected.

A noise monitoring program is proposed. This is included in CPA new Appendix D19, Noise Monitoring Plan. This program is largely focused on CPA Appendix D15, Wildlife Mitigation Plan, and is more restrictive than OAR 340 Division 35. The program identifies measurement sites to be monitored during the modeled activities of construction, operation, and blasting.

Submittal Response to Land Use Comments 484, 487, and 489-492, dated May 24, 2023, at 2-3. Based on the above information provided by the applicant, which demonstrates compliance with the requirements of OAR Chapter 340, Division 35, and as conditioned by compliance with the Noise Monitoring Plan, the permitting agencies conclude that the applicant has adequately considered the effects of noise resulting from the project and has therefore complied with Policy 12.

*Policy 13.* The county will require all developments and land uses to comply with state and federal environmental quality statutes, rules and standards.

This requirement is shared by the permitting agencies in issuing each of their own permits. The permitting agencies will include a condition requiring compliance with all applicable state and federal environmental quality statutes, rules, and standards in each of their individual permits. The following is suggested condition language:

***CONDITION 68:*** *Throughout the construction, operation, and reclamation of the Project, the Permit Holder must comply with all applicable state and federal environmental quality statutes, rules, and standards, and all applicable permit requirements of other state agencies. Noncompliance constitutes a violation of this Permit.*

**GOAL 7: To protect life and property from natural disasters and hazards.**

The County did not address any Goal 7 policies in its review of the part of the Project on Tax Lot 101. The majority of the County's policies under Goal 7 concern development in designated floodplains. The proposed facility is not located in a designated floodplain. In addition, the Malheur County Multi-Jurisdictional Natural Hazard Mitigation Plan (OPDR 2014) does not contain any action items (mitigation measures) that apply specifically to land use for grazing or mining. As a result, the permitting agencies agree that none of the County's Goal 7 policies are applicable to the Project.

**GOAL 8: To meet the park and recreation needs of the citizens of Malheur County and visitors.**

The County did not address any Goal 7 policies in its review of the part of the Project on Tax Lot 101. The Permitting agencies agree that none of the County's Goal 8 policies are applicable to the Project.

**GOAL 9: To diversify and improve the economy of Malheur County.**

The County identified Policies 4, 5, and 7 as applicable to the part of the Project on Tax Lot 101, but did not analyze consistency with each policy separately. Instead, the County relied on evidence provided by the applicant pertaining to the economic development benefits of the

Project in concluding that the Project would generally be consistent with Goal 9. The permitting agencies agree that the Project would be consistent with Goal 9 generally, and provide policy-specific analysis, below.

*Policy 4.* County land use regulations and land use decisions will encourage the continuation and expansion of existing industry and promote the development of new industry in Malheur County whenever possible.

The Applicant has provided evidence of the economic benefits of Project development. This includes the estimated creation of 110 full-time jobs for no less than seven years, at least 150 construction jobs (projected to last for at least a year during facility construction), and an increase in the County's tax base as a result of increased assessed value of Tax Lot 101. Exhibit 1 at 12.

*Policy 5.* The county may not arbitrarily prohibit, deter, delay or increase the cost of appropriate development, but shall enhance economic development and opportunity for the benefit of county citizens.

Although identified by the County, this policy bears on the County's actions, not the Applicant's, and is not an application standard.

*Policy 7.* In implementing land use regulations and making land use decisions the county will strive to achieve the following: a. Develop available natural resources. b. Create employment opportunities. c. Expand and maintain existing industry. d. Diversify agricultural products and the economic base. e. Broaden the tax base.

The permitting agencies have described the evidence provided by the Applicant in support of elements (b) and (e). In addition, as a gold mine, the Project would develop natural resources, expand the types of industry in Malheur County (as the County's first chemical process mine), and for the same reason, diversify the County's economic base.

**GOAL 11: To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.**

The County identified Fire and Police Protection Policy 2 and Water and Sewage Policy 1 as applicable to Tax Lot 101. These policies are evaluated below. In addition, the permitting agencies have identified Education Policy 2 and Irrigation Policy 1 as applicable to Tax Lot 100.

Fire and Police Protection

*Policy 2.* The county will require all major development projects to have an adequate fire protection plan.

The County addressed this requirement with respect to Tax Lot 101. The permitting agencies find that the fire protection program proposed by the Applicant and approved by the County with respect to Tax Lot 101 also meets the policy on Tax Lot 100. The evidence provided by the Applicant, the County's analysis, and the conditions adopted by the County, are reprinted here for convenience.

The Project will proceed under the following Fire Protection Plan, outlined in the PFS Report at 193:

“Water for fire protection will be distributed from the fire water tank located at the base of Grassy Mountain via a network of piping and will be maintained under a constant pressure with a jockey pump. The piping will be looped and sectionalized to minimize loss of fire protection during maintenance. Where located outside buildings, fire water piping will be buried below the ground surface to eliminate the potential of pipes freezing.

Yard hydrants will be limited to the fuel storage tank area. Wall hydrants will be used in lieu of yard hydrants, and these will be located on the outside walls of the buildings in cabinets that will be heated during winter months.

Fire protection within buildings will include standpipe systems, sprinkler systems, and portable fire extinguishers. Standpipe systems will be provided in all structures that exceed 46 feet in height, as well as where required by building code, local authorities, or the insurance underwriter.

Sprinklers will be provided at the following locations or to protect the following items:

- Truck workshop;
- Assay laboratory;
- Over hydraulic or lube packs that contain more than 120 gallons of fluid;
- Lube-storage rooms;
- Any conveyor belts that are within tunnels or other enclosed spaces which would be hazardous to fight fires manually;
- Transformers (excluding the substation); and
- Warehouse.”

Although there are no standards within the MCC that define an "adequate" fire protection plan, the County can find that the proposed fire protection plan provides for adequate fire protection because it includes a complete standpipe system with adequate pressure to address fire hazards on the Property. For this reason, the County can find that the Project is consistent with this policy.

STAFF FINDING: Staff concurs with the above statement, and observes that the Applicant will have its own separate onsite fire suppression system, which is consistent with this policy. Staff also notes that the Applicant has been in contact with the Vale Rangeland Fire Protection Association, which has had the opportunity to review the Application. An email from Bobby McElroy, Association



secretary, indicated that the Association would allow the Applicant to become a member of the Association (Exhibit 1).

The conditions adopted by the County are also adopted by the permitting agencies:

***CONDITION 339:*** *The Applicant will subscribe to the Vale Rangeland Fire Protection Association.*

***CONDITION 340:*** *The Applicant must collaborate with the Malheur County Sheriff's Office in regards to a security plan as well as law enforcement and emergency response plans (Exhibit 4).*

### Water and Sewage

*Policy 1.* The county, in considering land use proposals, will ensure that the physical characteristics of the land that affect sewage disposal, water supply, and water quality are carefully considered.

The Applicant provided the following evidence with respect to Water and Sewage Policy 1 for the part of the Project on Tax Lot 101:

Water supply is anticipated to come from two sources: (1) wells drilled near SPR 02 about three miles north of the proposed mine site and (2) the SPR 01 well between the plant and the borrow source. Two wells will be drilled in the area of SPR 02, and water from these wells will be pumped along the main access road through a pipeline to the mine site. The majority of water will come from the SPR 02 area. SPR 01 is expected to be low producing and will primarily be used as a backup well. Storage tanks will be placed at both the SPR 01 and SPR 02 locations to allow for temporary storage as needed, as shown on the enclosed site plan.

The siting and design of the Project sewage system will follow all State (DEQ) and County requirements for construction and permitting. Based on the Site Evaluation Report (Malheur County Environmental Health Department), Calico will design the required acceptable wastewater treatment system. The onsite sewage system will accept only domestic wastewater or a waste stream from the water treatment plan (no mine processing or related waste). Processing will occur 24 hours per day, 7 days per week. The final site will meet system setback requirements and be based on the Site Evaluation Report.

Exhibit 1 at 14. The County found that compliance with the permitting requirements of the Water Resources Department for an adequate water supply and the Department of Environmental Quality for compliance with water quality requirements established consistency with this policy. The permitting agencies find that this analysis is equally applicable to the part of the Project on Tax Lot 100.

### Education

*Policy 2.* The county will seek and consider information about school services, including bus service, in making land use proposals and decisions.

DOGAMI's Socioeconomic Impact Analysis includes data and analysis pertaining to the effects of the proposed Project on school services. The analysis is incorporated herein as follows. References to tables and data sources are to those in the Socioeconomic Impact Analysis.

The proposed Project would lead to an increase in jobs and likely an increase in population (Section 3.3 estimates between 17 and 45 households). With Malheur County having an average of 2.82 people per household (US Census Bureau, 2023a), a reasonable estimate would be 0.82 new children per household. For this analysis, it is assumed each immigrated employee will be a new household, each household will have a single earner, and households will be dual parent. The increase in households would lead to between 13.9 and 36.9 new students (17 to 45 households  $\times$  0.82 new children). A low estimate would be an increase of 24 students (29 new households  $\times$  0.82 new children = 23.78). Therefore, a reasonable estimated increase in students would be between 14 and 37 students. This potential growth in school enrollment is likely to be centered on the largest city school districts in Malheur County: Ontario, Nyssa, and Vale.

As noted in Table 2-9 of the Socioeconomic Impact Analysis, there were 5,325 students in the county for the 2022–2023 school year. The proposed Project could raise the enrollment between approximately 0.3 percent and 0.7 percent. The anticipated average annual population growth rate for the county is 0.7 percent to 0.8 percent (Table 2-2, ~255 people per year). This means the expected increase related to the Project is equal to or less than the anticipated average annual growth rate for the county.

The Malheur County ESD 2022–2023 class size ratio by district varies from 13:1 to 23:1 (Table 2-9). Median class size through time has decreased for each district, and these districts may thus have the capacity for additional students. The exception is the Ontario district, whose ratio has increased from 10 to 21 students. An increase of 14 to 37 students would be spread over many ages and schools, so the potential increase of student to teacher ratios would most likely be small and spread over many classes. The existing schools are anticipated to accommodate the additional students with no significant impact to education for existing residents.

### Irrigation

*Policy 1.* When evaluating proposals for residential and other non-farm development, the county will consider water rights and the potential impact of the proposed development on nearby irrigated lands.

Although this policy was not identified by the County in its review of the part of the Project on Tax Lot 100, the considerations underlying the policy are addressed in the Goal 3 policies, above. None of the lands within or immediately surrounding the part of the Project on Tax Lot 100 are irrigated or part of an irrigation or drainage district; therefore, the Project will not have effects on “nearby” irrigated lands. The Project does involve the acquisition of water rights to supply water for the project. The Water Resources Department will make a

determination of water availability as part of the permit application process. Under these circumstances, the permitting agencies find that the part of the Project on Tax Lot 100 is consistent with Irrigation Policy 1.

**GOAL 12: To provide and encourage a safe, convenient, and economic transportation system.**

The County identified Goal 12, Policy 20 as applicable to the part of the Project on Tax Lot 101, but did not provide any analysis of consistency with the policy. The permitting agencies have also identified Policy 2 as applicable, and addresses both policies below.

*Policy 2.* All county road activities (except those concerning state highways) will comply with the Malheur County road design, construction, and improvement standards.

The permitting agencies adopt the following condition to ensure consistency with Policy 2:

***CONDITION 341:*** *The Permit Holder must acquire any necessary permits from Malheur County prior to construction affecting county roadways, and must comply with all Malheur County road design, construction, and improvement standards.*

*Policy 20.* Developers creating a demand for improvement of unimproved county or public use road rights-of-way will be responsible for those improvements. After the improvements have been made, the developer may petition the County Court to accept such roads, upon meeting county standards, into the county road maintenance program.

The Applicant provided the following information with respect to Policy 20:

[T]he improved road corridor will be 40 feet wide, which includes a 24-foot wide road travel width (12 feet on either side of the road centerline), four-foot wide shoulders on each side of the road, minimum one-foot wide ditches on each side of the road, and appropriate cut and fill. The Access Road Area totals approximately 876 acres.

All necessary road improvements will be constructed and/or paid for by Calico. This includes improvement of Russel Road within County Jurisdiction. Russel Road and Cow Hollow Road are County Roads with 60 feet of public right-of-way (Exhibit 8). All improvements to roadways within County jurisdiction will remain after mining is complete, unless the County requires otherwise.

The main access road to Grassy Mountain will utilize existing private and BLM roads to the Patent Parcel, with BLM maintenance throughout. The primary roadway is approximately 17 miles long and will need to be upgraded to include some straightening and widening in sections. This BLM-maintained access road will remain under the jurisdiction of the BLM following closure of the Project. The improved roads on BLM land will either remain or be reclaimed after mining has been completed, according to BLM requirements. Roads constructed for the Project

within the Project Area will be reclaimed in accordance with the final approved reclamation plan to be included in the DOGAMI Consolidated Permit.

Exhibit 2 at 24-25. With the adoption of the following conditions, the permitting agencies find that the part of the Project on Tax Lot 100 complies with Policy 20:

***CONDITION 342:*** *All necessary road improvements will be constructed and/or paid for by the Permit Holder.*

***CONDITION 343:*** *Roads constructed for the Project within the Project Area will be reclaimed in accordance with the final approved reclamation plan included in the DOGAMI Operating Permit.*

## **B. Specific Plans: Specific Plan Recommendations**

The County did not identify any specific plan recommendations applicable to the part of the Project on Tax Lot 101. The permitting agencies are not aware of any specific plans applicable to the part of the Project on Tax Lot 100.

## **C. Developments and Viewpoints: Existing development and viewpoints of property owners in the surrounding area**

The Project is isolated from surrounding property owners. A map provided by the Applicant demonstrates that there are no permanently occupied private properties within five miles of proposed Project structures. The nearest seasonally occupied property, Camp Hycliff (a church-owned youth camp) is 4.6 miles away. The permitting agencies conclude that the Project will not affect viewpoints from existing development or of property owners in the surrounding area.

## **D. Services and Utilities: Availability of services and utilities**

The Applicant provided the following information to the County with respect to the part of the Project on Tax Lot 101. The permitting agencies find that this information is equally applicable to the part of the Project on Tax Lot 100.

Initial power for the Project will be provided by diesel power generators. These generators are anticipated to be used during the first 1.5 years of construction and initial mining. During the construction period, Idaho Power will install a new power line along the access roads to the Project Area based on a power purchase agreement with Calico.

The new Idaho Power service will include a 23-mile distribution circuit (power line), a new 69/34.5 kV to 14 MV transformer, and a new 34.5-kV 167-amp regulator. The line will connect at the Hope Substation near Vale, Oregon and run to the mine site along the main BLM access roads. The mine substation will be located on adjacent BLM land. The power distribution from the powerhouse will be provided by overhead power lines.

Underground power distribution will serve the underground facilities, which will supply power to electrical equipment used to develop the main decline and portable fans. This system will include a 480 V transformer placed near the entrance to the portal during the initial stages of decline construction. Once development has advanced far enough that carrying power at 480 V becomes too inefficient, a main underground power line will be installed along the rib of the decline to carry 4.16 kV and connected to the transformer, which will be moved underground. Upon completion of the decline to 3224 feet AMSL elevation, and the initiation of production-mining activities, a second underground transformer will be installed for use in the lower areas of the mine. Line power will also be carried up the hill to the two ventilation shafts to supply power to the ventilation fans.

At completion of mining, the main BLM access road power line will be controlled by the power company, which may either maintain it or remove it. The Project power supply equipment and all associated lines within the Project Area will be removed and reclaimed.

Exhibit 1 at 15-16. Electrical power is the only offsite utility required for the Project. As noted above, water for the Project will be provided by wells for which the Applicant must obtain permit from the Water Resources Department. The permitting agencies have received a copy of the power purchase agreement between the Applicant and Idaho Power Company, which demonstrates that Idaho Power can serve the Project.

***CONDITION 344:** Prior to commencement of construction, the Permit Holder must obtain all necessary right-of-way permits to install new power distribution lines within County rights-of-way.*

**E. Effect: The effect of the proposed use on the stability of the community's social and economic characteristics.**

DOGAMI's Socioeconomic Impact Analysis (SEIA) addresses impacts of the proposed Project on the community's social and economic characteristics. The SEIA analysis is incorporated herein. The SEIA concludes that the proposed Project will have a positive impact on the community's economy and that the effects on social characteristics are likely to be minor and primarily beneficial.

**F. Fish and Wildlife**

As discussed above, the Applicant must comply with the Oregon Department of Fish and Wildlife's Habitat Mitigation Policy as a condition of the permitting agencies' permits. Compliance with the policy will satisfy compliance with this provision.

**G. General Criteria**

The County reviewed the General Criteria listed below and concluded, with respect to Tax Lot 101, that "[t]he site's isolation from any nearby occupied private properties ensures that the General Criteria are met." Final Findings of Fact and Conclusions of Law, Exhibit 1 at 16. As

described below, the permitting agencies generally agree, but have included a condition, proposed by the Applicant, minimizing the leakage of light outside the Project Area.

**1. Increasing setbacks of structures to reduce possibilities of overshadowing adjoining property, noise, odor or night lighting nuisances.**

ERU setback requirements are described in response to MCZO 6-6-8-4(A)(2), below. The permitting agencies conclude that no additional setbacks of structures are required for the part of the Project located on Tax Lot 100. The Project is isolated from surrounding property owners. A map provided by the Applicant demonstrates that there are no occupied private properties within five miles of proposed Project structures. The nearest seasonally occupied property, Camp Hycliff (a church-owned youth camp) is 4.6 miles away. The Project Area and associated structures are separated from the nearest road (Twin Springs Road) by a 2.48-mile private access road. Vicinity and Access Map, dated November, 2022.

**2. Landscaping improvements for the visual benefit of the subject site and for the improved appearance of the neighborhood and county.**

The Project is isolated from surrounding property owners. A map provided by the Applicant demonstrates that there are no occupied private properties within five miles of proposed Project structures. The nearest seasonally occupied property, Camp Hycliff (a church-owned youth camp) is 4.6 miles away. The Project Area is separated from the nearest road (Twin Springs Road) by a 2.48-mile private access road. Vicinity and Access Map, dated November, 2022. The Applicant correctly notes that landscaping improvements would be removed as part of reclamation. The permitting agencies conclude that no improvements are required for the visual benefit of the subject site or the appearance of the neighborhood and county.

**3. Location and size of driveway access points and right-of-way widening and improvement for present and future traffic circulation consistent with the adopted county road standards or the standards of the appropriate road district and the access management standards of the Malheur County transportation system plan.**

The 2.48-mile private road that provides access to the Project Area does not connect directly with a county-owned road. Instead, the private road connects to the BLM-owned and maintained Twin Springs Road, which runs approximately 13.5 miles before connecting with the County-owned and maintained Cow Hollow Road. The County considers Twin Springs road to be a “local roadway” and “local roads were not inventoried as part of the Malheur County [Transportation System Plan (1998)].” Submittal Response to Land Use Comments 484, 487, and 489-492, dated May 24, 2023, at 6. Therefore, no new intersection is proposed that is subject to Malheur County access management standards, and the permitting agencies conclude that no condition of approval is necessary. The permitting agencies defer to BLM’s determination with respect to its own roadway standards.

**4. Visual screening of outdoor waste and storage areas.**

Visual screening is intended to provide an aesthetic benefit to surrounding land uses. The Project is isolated from surrounding property owners. A map provided by the Applicant

demonstrates that there are no occupied private properties within five miles of proposed Project structures. The nearest seasonally occupied property, Camp Hycliff (a church-owned youth camp) is 4.6 miles away. The Project Area is separated from the nearest road (Twin Springs Road) by a 2.48-mile private access road. Vicinity and Access Map, dated November, 2022. Recreational opportunities on the BLM-owned Tax Lot 100 are referred to as “dispersed,” rather than concentrated on particular viewpoints. The permitting agencies conclude that no condition of approval is necessary for compliance with this criterion.

**5. Control and focusing of outdoor lighting to avoid glare being directed beyond property limits.**

The Applicant has represented that it will comply the practices presented in BLM’s Technical Note 457 Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Manage Lands (Sullivan et al., 2023). In addition, the Applicant agrees to a condition requiring that all site lighting be directed downward to avoid spillover outside of the Project Area. The permitting agencies therefore adopt the following condition of approval:

***CONDITION 337:*** *During construction, operation, and reclamation of the Project, the Permit Holder will:*

- (1) comply with the practices presented in BLM’s Technical Note 457 Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Manage Lands (Sullivan et al., 2023); and*
- (2) direct all site lighting downward to minimize spillover outside the Project Area.*

**6. Special criteria listed below, as applicable.**

No special criteria have been identified by the County or the permitting agencies as applicable to the Project.

**H. Allowance of Certain Uses**

**1. Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or**

The permitting agencies find that the evidence and analysis pertaining to Goal 3, Policy 8 demonstrates consistency with this requirement and is incorporated by reference herein.

**2. Significantly increase cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.**

Because the evidence shows that the Project is unlikely to cause changes in accepted farm and forest practices on surrounding lands, the Project is also unlikely to significantly increase the cost of those practices. In some cases, it is necessary to consider whether the removal of a significant amount of acreage from agricultural production may increase costs, by decreasing the number of agricultural service providers and therefore increase the costs associated with

obtaining those services. In this case the Project will occupy 487.9 acres of land within an approximately 76,000-acre BLM grazing unit, less than 1% of acres within the allotment. As a result, the permitting agencies find that the Project will likely not significantly increase the cost of accepted farm or forest practices on surrounding lands.

### **MCC 6-6-8 Specific Criteria to Evaluate Suitability**

#### **MCC 6-6-8-4 Mineral, Aggregate, or Geothermal Resource Exploration, Mining and Processing**

**A. Submitted plans and specifications shall contain sufficient information to allow the planning commission to set standards pertaining to:**

**1. Noise, dust, traffic and visual screening.**

Noise, dust, and visual screening are each addressed above, and the permitting agencies find that the Project, as conditioned in applicable permits, will adequately address these issues. Traffic, including a transportation baseline report and a traffic impact analysis, is addressed in DOGAMI's Socioeconomic Impact Analysis. The analysis is incorporated herein, as follows.

The Transportation Baseline Report (EM Strategies 2018) included an estimate of traffic increases due to the proposed Project. The total mine traffic estimate is 149 round-trips or 298 one-way trips per week. The average daily travel is estimated at 42.6 trips going past a single point along the access road. The proposed mining operation trip generation is within the policy threshold of the Malheur County Transportation System plan as less than 400 average daily motor vehicle trips are anticipated to be generated. The proposed Project is therefore anticipated to have no impacts to Malheur County roads and transportation.

**2. Setbacks from property lines.**

Setback requirements in the ERU zone are governed by MCC 6-3A-6(A):

Setbacks: No building or sight obscuring fence, other than a fence or facility associated with irrigation activities, shall be located closer than forty feet (40) from a street or road right-of-way line and fifteen feet (15) from any other property line. No sight obscuring fence exceeding three feet (3) in height shall be placed within the forty-foot (40) street setback, also within this setback shrubbery other than trees shall be maintained at heights not exceeding three feet (3). Dwellings and inhabitable structures, including associated sewage disposal facilities and removal of vegetation, shall be prohibited within one hundred feet (100) of rivers, streams, lakes, reservoirs and other wetlands, unless topographic features make such setback unnecessary to protect riparian habitat.

None of the listed setbacks are implicated by part of the Project on Tax Lot 100. The Project Area is well within the boundaries of the much larger Tax Lot 100, which encompasses not only Township 22 South, Range 44 East, Section 8, where the Project Area is located, but all the Sections surrounding Section 8.



As discussed in Section 6-6-7(G)(1), above, the Project does not require any additional setbacks.

### **3. Location of vehicular access points.**

As discussed in Section 6-6-7(G)(3), above, access to the Project Area is from a BLM-owned and maintained road designated as a “local roadway” by Malheur County and not subject to its Transportation System Plan. The Project does not require any additional conditions pertaining vehicular access points.

### **4. Fencing needs.**

The Applicant provided the following response to the County. While it is specific to Tax Lot 101 (the Patent Parcel), it describes fencing on Parcel 100 as well.

A perimeter fence, approximately 22,358 feet in length, will be constructed around the Project facilities to prevent access by livestock, wildlife, and the public (Figure 3). In general, three-strand barbed wire fences will be constructed in accordance with BLM fencing standards per BLM Handbook 1741-1. The area within the perimeter fence is approximately 540 acres. Within the perimeter fence in areas where a higher level of security is needed, chain-link fences will be erected. Gates or cattle guards will be installed along roadways within the Project Area, as appropriate. The perimeter fence will be monitored on a regular basis and repairs made as needed. ' No fencing of the Patent Parcel is proposed within the Project Area. Given that Calico proposes a complete perimeter fence around the Project Area, the County can find that no additional fencing of the Patent Parcel is necessary.

The County concurred that the fencing proposed by the Applicant is sufficient for Tax Lot 101. While fencing is discussed in other parts of DOGAMI’s operating permit, the permitting agencies concur that the fencing proposed by the Applicant satisfies this section of the MCZO. The permitting agencies adopt the Applicant’s representation as a condition, as follows:

**CONDITION 338:** *Prior to operation of the Project, the Applicant will construct a perimeter fence around the Project Area. Three-strand barbed wire fences will be constructed in accordance with BLM fencing standards per BLM Handbook 1741-1. Cattle guards or gates, as appropriate will be installed along roadways in a manner sufficient to prevent the intrusion of cattle within the Project Area. During operation, and until four years after cessation of operations, , the Applicant must maintain these features in a condition sufficient to prevent the intrusion of cattle within the Project Area. In addition, prior to operation of the Project, the Applicant will construct a perimeter fence around the E Cell. The Applicant must maintain this feature in a condition sufficient to prevent the intrusion of the cattle until the completion of the 30-year post-closure monitoring period.*

### **5. Prevention of the collection and stagnation of water at all stages of the operation.**

In its Final Findings of Fact and Conclusions of Law, the County interprets this provision as a means to require conditions intended to “reduce the vector danger posed by mosquitos.” Final Findings of Fact and Conclusions of Law, Exhibit 1 at 21. The County acknowledges that standing water will be an unavoidable part of the Project’s construction and operation, but “the geographic isolation of the Project Area will greatly reduce the vector danger posed by mosquitos.” *Id.* This is equally true of Parcel 100. Use of water on the facility is subject to permits issued by the Department of Environmental Quality and the Water Resources Department. Given that the Project must comply with all such required permits, and given the isolation of the Project, the permitting agencies concur with the County’s analysis.

#### **6. Rehabilitation of the land upon termination of the operation.**

For the part of the Project on Tax Lot 101, the County included a condition requiring DOGAMI approval of a Project reclamation plan. The permitting agencies concur that the reclamation plan, included in the Operating Permit, is a sufficient standard for rehabilitation of the land upon termination of the operation.

**B. In zones where processing is permitted, it shall be located no closer than two hundred feet (200') from residential or commercial uses.**

There are no residential or commercial uses within 200 feet of the Project Area.

**C. Equipment and access roads shall be constructed, maintained and operated in such a manner as to eliminate, as far as is practicable, noise, vibration or dust that is injurious or substantially annoying to livestock being raised in the vicinity. (Ord. 86, 12-7-1993)**

The permitting agencies find that the evidence and analysis pertaining to Goal 3, Policy 8 and MCC 6-6-8-4(A)(1) demonstrates consistency with this requirement and is incorporated by reference herein.

### **V. INCORPORATION OF FINDINGS AND CONCLUSIONS INTO PERMITS**

The findings and conditions herein are incorporated into the following draft permits:

- Air Contaminant Discharge Permit (ACDP)
- Water Pollution Control Facilities Permit (WPCF-N)
- Water Pollution Control Facilities Permit (WPCF-On-site)
- Permit to Appropriate Public Waters Permit
- Consolidated Operating Permit



Oregon

Tina Kotek, Governor

Department of Geology and Mineral Industries

Mineral Land Regulation & Reclamation

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May 30, 2025

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

RE: MARCH 6, 2025, TECHNICAL REVIEW TEAM APPROVAL OF BEST AVAILABLE PRACTICABLE AND  
NECESSARY TECHNOLOGY FOR PROPOSED GRASSY MOUNTAIN MINE  
Calico Resources USA Corp. Grassy Mountain Mine Project

Dear Ms. Goldman:

On March 6, 2025, the Technical Review Team (TRT) unanimously approved the Best Available Practicable and Necessary Technology (BAPNT) measures for the Grassy Mountain Mine Project (the project). This letter from the Oregon Department of Geology and Mineral Industries (DOGAMI; the Department) documents the approach employed for evaluating candidate technologies and ultimately, the process that resulted in decisions made by the TRT.

**Best Available Practicable and Necessary Technology**

According to Oregon Administrative Rule Chapter 632 Division 037 Rule 0118 (OAR 632-037-0118), "Chemical process mining including extraction, processing, and reclamation, must be undertaken in a manner that minimizes environmental damage through the use of the best available, practicable, and necessary technology to ensure compliance with environmental standards." Further, OAR 632-037-0130 states that the Department also requires a chemical process mining operation to employ BAPNT for reclamation and closure to ensure compliance with state environmental standards. The regulations require that the TRT evaluate and select BAPNT in consultation with the Applicant (Calico Resources USA Corp.; Calico). The identification and adoption of BAPNT for a proposed project are state requirements without which a Consolidated Permit cannot be issued.

The BAPNT review process first requires the TRT to determine the necessary technologies, if such technologies exist, second to determine if necessary, technologies are available, and third to determine which of the necessary and available technologies is practicable (OAR 632-037-0118(2)). Per OAR 632-037-0010, the definitions for available, practicable, and necessary are as follows:

- “Available Technology” means technology that is obtainable and has been demonstrated to meet environmental standards at an existing mine or a demonstration project of similar size and scale, or is reasonably expected to meet or exceed environmental standards at the proposed mine.
- “Practicable Technology” means available and necessary technology whose costs are not significantly disproportionate to the potential environmental benefits. A technology is not practicable if the cost is so high it renders a mining operation infeasible.
- “Necessary Technology” means technology that is required to ensure compliance with environmental standards.

The TRT reviews the identified necessary, available, and practicable technologies to select the technologies with the most effective environmental benefits that become the BAPNT. The TRT then recommends the BAPNT to the Department to ensure compliance with environmental standards, which the Applicant must employ in the mining operation and associated activities. If the TRT or Department is unable to identify a necessary technology that is available and practicable, the Department shall not issue an operating permit (OAR 536-037-0118(4)). The evaluation of BAPNT is a collaborated and coordinated process between the TRT and the Applicant.

### **Milestones and Actions to Identify the BAPNT**

Alternative technologies for the various mine operation components were identified at various stages of Project review. The Applicant-proposed technologies and alternative technologies were reviewed during several stages to identify BAPNT for the Project, which are described below.

#### ***Development of the Environmental Evaluation Scope of Analysis***

Environmental review of the proposed Project is being carried out by state agencies, federal agencies, and local governments pursuant to the Oregon chemical process mining Consolidated Permit process described in Oregon Revised Statutes (ORS) 517. The Department is the lead facilitating agency and is coordinating with the TRT and permitting, cooperating, and commenting state agencies.

An Environmental Evaluation is an analysis prepared to assess the potential impacts of a chemical process mine. The analysis also provides information to support the decision to issue or deny a permit and develop permits conditions by state agencies. The proposed scope of the Environmental Evaluation was presented in an annotated outline that was distributed to TRT members for review. The TRT provided input on the Environmental Evaluation outline and contents and suggested including the BAPNT analysis as a separate technical appendix. The TRT approved the outline on March 15, 2023.

### ***Appendix A (BAPNT) of the Environmental Evaluation***

The Applicant's proposed technologies for the project are presented in the Consolidated Permit Application that was determined to be complete by the Department and the TRT on October 4, 2023. The TRT proposed a list of categories related to mine operation and closure for researching technologies in the Environmental Evaluation (dated August 1, 2024), which included the following:

1. Mine construction methods, including extracting ore, backfilling, and transporting mined materials;
2. Mill operations, including chemical processing, cyanide management, air quality controls, process solution containments, wildlife exclusion, and mill closure;
3. Tailings management including disposal, tailings storage facility (TSF) design, leak detection, long-term pollution prevention controls, long-term monitoring, wildlife exclusion, and TSF closure;
4. Operations management including water management, fugitive dust control, equipment maintenance, and operations monitoring;
5. Acid rock drainage management;
6. Hazardous materials handling, storage, and management; and
7. Spill and emergency response.

The technologies proposed by the Applicant (in the CPA) and identified by TRT members were included in the Environmental Evaluation. The technologies were then reviewed by the TRT, the Department, and the state's contractor, Stantec to determine if they achieved the objectives of being available, practicable, and necessary for the specific site at Grassy Mountain (Environmental Evaluation, Appendix A, Table A-3). The analysis considered site-specific conditions including climate, mineralization, geological, geotechnical, hydrogeological, and morphological conditions when determining whether a technology is necessary and practicable.

The BAPNT review process initially required the TRT to determine the necessary technologies to achieve the objectives of the Project. If a technology was considered to be unnecessary, it was not considered further in the BAPNT evaluation. For the technologies that were considered required, the TRT determined whether they were available and technically feasible for the Project. Those technologies that were deemed to be necessary and available were also assessed for economic practicability. Those that were not economically practicable were not carried forward in the BAPNT evaluation.

Additional technologies were identified by TRT members during review of the Applicant's proposed technologies and added to the analysis in Appendix A. The TRT then conducted a comprehensive review of the Environmental Evaluation, including the revised Appendix A. This process occurred between February and August 2024. Following three rounds of review, the Environmental Evaluation was accepted by the TRT as complete on October 3, 2024 during a public TRT meeting with the acknowledgement that formal TRT coordination and approval of BAPNT would occur subsequently.

### ***Technical Review Team Meetings***

On November 27, 2024, the Department sent an email to TRT members that included background information on the BAPNT process, including components of the Environmental Evaluation Appendix A. Members were asked to provide a list of technologies that warrant further discussion (by January 8, 2025) in advance of the TRT meeting focused on BAPNT. The Department sent a follow-up email to members on January 7, 2025, requesting the list of technologies.

The first BAPNT TRT meeting occurred on January 30, 2025. The Department provided background information on the regulations pertaining to BAPNT for chemical process mines in the State of Oregon. The technologies identified as Applicant-proposed measures in the Consolidated Permit Application, alternative technologies identified in the Environmental Evaluation, and additional measures identified to provide further environmental protection and benefit were presented during the meeting, including a comparative analysis of their advantages and disadvantages.

Comments from TRT Members on BAPNT technologies were provided and additional supporting information was presented and discussed. TRT comments on alternative technologies spanned topics, including leak detection methods, air quality analysis for back-up diesel engines, wildlife exclusion options, water supply alternatives, power supply alternatives, gold processing alternatives, and alternative TSF locations.

### ***Approval of the Best Available Practicable and Necessary Technology***

During the second BAPNT TRT meeting that occurred on March 6, 2025, TRT members discussed the final list of BAPNT options and voted to approve a final set of technologies for the Project.

Table 1 below presents the list of technologies and additional measures approved by the TRT on March 6, 2025, which are now considered to be part of the Grassy Mountain Mine Project. The approved technologies and additional measures will be integrated into the conditions within the Consolidated Operating Permit, as appropriate. The technologies and measures will also be incorporated into the Applicant's proposed mine operation and closure plans, and certain components will be included in the bond, as appropriate. TRT-approved additional measures are presented in italics in Table 1.

**Table 1 Best Technologies and Additional Recommended Measures**

<b>Project Component</b>	<b>Best Technologies</b>
<b>MINE CONSTRUCTION METHODS</b>	
Extracting Ore	Underground Mining Mechanized Cut-and-Fill with CRF
Backfilling	Cemented Rock Fill
<b>MILL OPERATIONS</b>	
Chemical Ore Processing	CIL Cyanide Circuit, Elution Electrowinning Recovery
Cyanide Management	Detoxification and Neutralization of Cyanide Cyanide Destruction Circuit
Cyanide Monitoring	Certified Laboratory Testing In-Line Device (e.g., Cynoprobe)
Air Quality Controls	Mercury Retort Oven and Wet Scrubber
Process Solution Containments	Concrete Secondary Containments <i>Water Stops and Concrete Coatings</i>
Wildlife Exclusion from Mill	Perimeter Fencing and Monitoring Covers, Mesh, or Netting to Reduce Bird and Bat Nesting Covering Waste Bins
Closure of the Mill	Dismantling, Salvaging, Selling, or Authorized Disposal of Mill Infrastructure Closure-Period Inspections Breaking, Burying, and Recontouring Foundations <i>Planting Sagebrush Plugs/Seedlings and Perennial Grasses and Forbs with a Monitoring Program</i>
<b>TAILINGS MANAGEMENT</b>	
Tailings Disposal	Permanent Storage of Tailings in Lined TSF, TSF Lime Addition, TSF pH Monitoring
Tailings Water Content	Conventional Tailings Slurry. <i>Water Balance Accounting (including probabilistic and deterministic meteorological water projections)</i>
TSF Design	Zero-discharge with Synthetic Double Lining
Leak Detection	Liner Leak Detection and Collection, and Groundwater Monitoring for Leaks
Long-Term Pollution Prevention Controls and Monitoring	Backfilling using CRF Plugging the Mine Portal Retaining Liners in Perpetuity Reclaiming Mine Areas Converting the Reclaim Pond to an Evaporation Cell Retaining Stormwater Infrastructure <i>Monitoring Mined Materials Quarterly During Operations</i>

Project Component	Best Technologies
Long-Term Monitoring	Monitoring Groundwater Monitoring Noxious Weeds Facility Inspections, Maintenance, and Repairs Inspections and Sampling of Stormwater Facilities and Discharges Spring and Seep Monitoring
TSF Wildlife Exclusion	Perimeter Fence and TSF Fences and Barriers Monitoring Perimeter for Signs of Wildlife Monitoring and Removal of Aquatic Species in TSF Pond Bird Deterrent Balls on TSF Pond <i>Visual Deterrents: Effigies, Predator Models</i> <i>Radar-activated Propane Cannons</i> <i>Laser Bird Deterrents</i> <i>Emergency Hazing</i> <i>Bio-exclusion Zones</i>
Closure of the TSF	Dry Closure Conversion of Process Pond to Evapotranspiration Cell <i>Hydroseeding</i>
<b>OPERATIONS MANAGEMENT</b>	
Air Quality Control Measures	Dust Suppression Water Spray Equipment Hoods, Curtains, Chutes Cover/Enclose Material Piles Air Permit BMPs Dust Control Staff Training Backup Generators <i>Monitor TSF for Dust after Operations Cease and Prior to Cover</i>
Water Management	Site Groundwater Production Wells and Water Level and Quality Monitoring <i>Closure Reclamation of Water Supply Piping</i>
Operations Monitoring	Resource-Specific Monitoring Plans Permit Monitoring Requirements
Acid Rock Drainage Management	Cement Rock Fill Groundwater Monitoring for Acid Rock Drainage <i>Additional Monitoring and Testing (by mine level)</i> <i>Additional Water Quality Monitoring</i> <i>Passive or Active Treatment of Acid Rock Drainage</i>
Transporting Mined Materials	Diesel Fuel (Trucks and Loaders)
Equipment Maintenance	Preventative Maintenance



Project Component	Best Technologies
Hazardous Materials Handling, Storage, and Management	Toxic and Hazardous Substances Transportation and Storage Plan Waste Management Plan Offsite Hazardous Materials Disposal Toxic and Hazardous Substances Transportation and Storage Plan Stormwater Pollution Control Plan Regular Inspections of Hazardous Materials Storage Areas and Updates to Management Plans
Spill and Emergency Response	Spill Prevention, Control, and Countermeasures Plan Emergency Response Plan Mobile Emergency Refuge Stations Fire Alarm System <i>Water Stops and Concrete Coatings</i> <i>Strobe Lights, Light Vests, Laser Pointers, Lifelines, Cones, and Reflective Strips</i>

If you have any questions or would like to schedule a meeting to discuss this letter, please contact me at 503-853-5139 or at [sarah.lewis@dogami.oregon.gov](mailto:sarah.lewis@dogami.oregon.gov).

Sincerely,



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 DOGAMI - MLRR