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**Date:** Jan. 9, 2019

**To:** Environmental Quality Commission

**From:** Richard Whitman, Director

**Subject:** Agenda item K, Informational Item: Calico Resources Grassy Mountain Mine  
Jan. 24-25, 2019, EQC meeting

**Purpose of item** A gold and silver mining operation has been proposed in Malheur County, and is the first project proposed since the 1990s that is subject to Oregon's Chemical Mining Rules and the unique consolidated permitting process. Several of the key permits needed for the mine are issued by DEQ.

DEQ and DOGAMI will co-present on the proposed project, including current status and projected next steps.

**Background** The proposed Grassy Mountain Mine is located approximately 22 miles south of Vale. The mine would be underground, not open pit, and it would be located on private land. The mill, processing plant, tailings disposal facility, and other accessory facilities would be located at the surface on adjacent U.S. Bureau of Land Management. The processing plant would use cyanide to recover gold from the ore, but the cyanide used in processing the ore would be contained in closed-loop sealed vats within enclosed buildings. Heap leach pads would not be used. The operations would require a disposal facility for up to 3.2 million tons of tailings over approximately eight years of mining. These tailings would include heavy metals and some level of residual weak acid dissociable cyanide.

In addition to the mine, mill, processing plant, and tailings disposal facility, the project includes many accessory facilities including waste rock storage areas, a small industrial solid waste landfill, offices, showers, water storage, and lavatories. The company proposes to improve 17 miles of roadway and construct overhead power lines from Vale to the mine site. The mine is expected to employ up to 112 people at an average wage of \$80,000 per year during operations and have an initial capital investment of \$110 million.

Calico Resources USA Corporation is the prospective permit applicant. Calico originally filed its notice of intent for the mine in 2012 but the application process was later paused by the company. In 2016, Calico became a wholly owned subsidiary of Paramount Gold Nevada Corp. Paramount is a publicly traded mining company, although among global mining companies, it is relatively small. In 2017, after acquisition by

Paramount, Calico revised its plans for the project and submitted an amended Notice of Intent, essentially restarting the project. Paramount also has controlling interests in 445 mining claims and leases near the proposed Grassy Mountain Mine. These cover approximately 9,300 acres of land in Oregon and include areas where the company is actively exploring for additional possible mine sites.

**Consolidated  
Permitting  
Process**

The Oregon Chemical Mining Rules, ORS 517.952 to 517.989, establish a consolidated process for all of the state permits required for a chemical process mine. In addition, The Department of Geology and Mineral Industries, DEQ, Oregon Water Resources Department, and Oregon Department of Fish and Wildlife each have special rules implementing these statutes. The statutes and rules require a prospective applicant to file a notice of intent to seek permits. Once a prospective applicant files its notice of intent, DOGAMI establishes a Project Coordinating Committee and Technical Review Team. The Project Coordinating Committee consists of representatives of affected state agencies, local governments, tribal nations, and the federal government. The Technical Review Team consists of representatives of the permitting agencies and other state agencies, called cooperating agencies, that have statutory responsibilities relating to the proposed mine but do not issue permits. Under the statutes, DOGAMI administers the consolidated permitting process, generally staffs and chairs the meetings of the Project Coordinating Committee and Technical Review Team, and issues a consolidated operating permit. Each state agency remains responsible for issuing its own permits and developing the conditions of approval for the permits.

In the pre-application phase of the process, the Technical Review Team establishes methodologies for the collection of baseline data on existing conditions. The prospective applicant then collects the data as requested and reports to the team. Once all the baseline data are collected, the applicant may file a consolidated application.

The application must include all the baseline data and substantial additional information relating to the proposed mine including specific mine plans, processing plans, reclamation plans, an alternatives analysis, and any additional information required for all of the state agency permits. For the Grassy Mountain Mine, Calico Resources must include an approved land use compatibility statement from Malheur County for the private property and information establishing compliance with applicable statewide planning goals for the federally managed property.

If, after a public hearing, DOGAMI and the Technical Review Team determine the consolidated application is complete, the applicant is given notice to proceed with permitting. If the consolidated application is

determined to be incomplete, there is an expedited statutory process to get the necessary information to supplement the application.

Under the expedited process, Technical Review Team agencies have 225 days complete draft permits once the notice to proceed issues. The statutes also include a requirement and process for the Technical Review Team agencies to resolve any inconsistencies between permits and minimize duplication with federal efforts. During this same period, the state must issue an environmental evaluation and social-economic impact analysis for the project. These documents are similar to the environmental impact statements required for some federal agency decisions under the National Environmental Policy Act and are subject to public notice and comment.

Final permits must be issued or denied within 105 to 120 days after the draft permits are issued. During this period, the agencies must provide for public notice and a consolidated public hearing on the draft permits. The statutes also establish a consolidated administrative appeal process and expedited judicial review for the state agency permits.

## **Permitting**

Four DEQ permits are expected to be needed for the proposed mine.

### Division 43

The mine, mill, processing plant, tailings disposal facility, waste rock storage facility, and stormwater collection system will be subject to a special WPCF permit issued under OAR chapter 340, division 43. This is a special DEQ rule division for chemical process mines. It requires a single water quality/solid waste permit that is subject to the general requirements of the water quality and solid waste rules as well as additional requirements and limitations imposed directly under Division 43.

### Onsite Sewage Disposal

A DEQ-issued onsite permit will be required for gray water and domestic sewage.

### Construction Stormwater

Registration under the 1200-C stormwater permit will be required for road improvements and construction of the overhead power lines.

### Air Quality Permit

A construction ACDP, also known as a standard ACDP, will be required with conditions to obtain a Title V permit under the federal Clean Air Act. There is a new federal Maximum Achievable Control Technology standard under the federal Clean Air Act for gold recovery plants, which will likely apply to the mill and processing plant. In addition, the facility will need to comply with the requirements in the new Cleaner Air Oregon rules.

These DEQ permits are in addition to the DOGAMI operating permit and permits from the Water Resources Department. The DOGAMI permit will include permit conditions requested by the Oregon Department of Fish and Wildlife, Oregon Department of Agriculture and State Historic Preservation Office. In addition, it is possible that a permit for the potable water systems will be required from the Oregon Health Authority.

**Project status**

Calico Resources is close to completing the baseline data collection. There are a number of key areas, however, where more data and analysis are required. Collection and analysis of these data likely will take some additional months to complete. One notable example is completion of a sophisticated ground water characterization model for the area. Another is completion of geochemistry reports that will be crucial to developing mine plans, processing details and design of the proposed tailings disposal system.

The company has not identified a date for filing the consolidated application. Given the compressed permitting timelines, however, the company is already working with DOGAMI and DEQ on matters relating to content of the application. The application will be a major undertaking and all involved, especially the public, will benefit from ensuring that the application is complete when filed. Specifically, the company and its contractors and DEQ and the state's contractors have begun meeting to address at issues associated with the proposed tailings disposal facility, which will be a key component of the application for the Division 43 permit.

The Technical Review Team agencies have also been working with the company and the state's contractors to flesh out the areas to be covered in the EE and SEIA and to coordinate those efforts with the work the company and BLM will be doing on the federal EIS.

**Related issues**

Land Use

As noted above, Calico must establish local land use compatibility before it can submit a complete consolidated application. To this end, members of the project teams anticipate that in the coming months, Calico will apply for a conditional use permit to authorize mining on the private land and supply the state agencies with information establishing compliance with the statewide planning goals on federally managed lands. Malheur County does not assert land use jurisdiction over federal lands. As a part of both procedures, the company will be required to demonstrate the ability to avoid, minimize or mitigate wildlife impacts, including compliance with sage grouse protection requirements.

Coordination with Federal Agencies

The consolidated permitting statutes and rules require the state to cooperate and coordinate with federal agencies to the extent possible. In addition to the

state permits, the Bureau of Land Management will need to approve a plan of operations for the mine, and BLM has determined that approval of the plan operations will require an Environmental Impact Study. Many of the state and federal permitting and environmental and socioeconomic review requirements are substantively similar. The procedures and timelines are significantly different, however. The state agencies, BLM and U.S. Fish and Wildlife Services are working hard to make the processes work as seamlessly as possible. Project staff expect to be able to coordinate the development of the EIS with other related studies, and to coordinate public comment and hearings opportunities. In addition, project staff are discussing coordination of financial security requirements with BLM, possibly by using a joint financial security agreement, as discussed below.

#### Financial Security Requirements

The consolidated permitting statutes and the DOGAMI and DEQ rules have robust financial security requirements. These include a requirement for bonds or other forms of financial security to ensure that the site is operated in compliance with permit conditions, properly decommissioned and reclaimed, and subject to long-term monitoring. Perpetual maintenance of the tailings facility will also be required. In addition, the financial security requirements must also provide protection against credible accidents at the site. Project staff anticipate that these financial security requirements will be satisfied by some combination of surety bonds, letters of credit, annuities, and trust agreements.

In addition, OAR 340-043-0025 requires additional personal assumption of liability by persons controlling the permittee unless an exemption applies or the Environmental Quality Commission grants an exception to the requirement. At this point, the company has not indicated if it will or will not seek this type of exemption.

#### Communications

DOGAMI and DEQ have worked with the state's contractors to develop a comprehensive communications strategy. Products include infographics intended to assist in visualizing the consolidated permitting process and a regional stakeholders survey intended to gather input on the proposed mine and its environmental, economic and social consequences. Project staff are also working to improve and expand the DOGAMI website that provides information on the proposed mine and permitting procedures.

#### Tribal and Environmental Justice Considerations

The state has paid particular interest to tribal and other environmental justice issues in the administration of the consolidated permitting process for the proposed mine. This includes extensive outreach to tribal governments in Oregon, Idaho, Washington and northern Nevada that may have an interest in the proposed project. Representatives of the Burns-Paiute Tribe serve as

members of the Project Coordinating Committee, which is the official policy body for administering the permitting process. Project staff have also consulted with Oregon's Environmental Justice Task Force. Under the statutes and rules, the company was required to gather information on EJ considerations near the proposed mine site. The potential impacts on tribes and communities with EJ concerns is included in the socio-economic impact analysis required as part of the permitting process.

**EQC  
involvement**

There is no commission action requested at this time. Under the statutes and rules, there is no direct commission involvement in the permitting process other than the potential for a requested exemption related to financial security requirements.

DEQ will report back to the commission later in 2019 with project status updates and if Calico Resources indicates it may apply to the commission for an exception to the special financial security requirements.

Report compiled by Larry Knudsen and Randy Jones  
*DEQ and DOGAMI project staff for Grassy Mountain Mine*