LEAGUE OF WOMEN VOTERS® OF OREGON

Hard Rock Mining Executive Summary

Federal Law: The General Mining Act of 1872 remains the foundational federal law for hard rock mining on public domain lands in the United States. Signed into law by President Ulysses S. Grant, the act allows the purchase of mineral-bearing public lands for no more than $5 per acre and waives all royalties on the extraction of minerals from those lands.

Today over 350 million acres of public domain land are under the jurisdiction of the General Mining Act of 1872, mostly in the West and Alaska, constituting more than 15% of all U.S. land. The $5 per acre fee is still in effect, but the law no longer applies to all minerals. Other laws apply to common minerals, such as limestone, and for fuel minerals, such as coal, oil, and natural gas. In most instances, mining takes precedence over all other potential uses. Individual states are responsible for developing their own claim recordation procedures with guidance from the Bureau of Land Management and the County Recorder's office.

The Federal Land Policy and Management Act of 1976 commissioned the National Forest Service, National Park Service, and the Bureau of Land Management to allow a variety of uses on public lands, while at the same time preserving natural resources. The Mining in the Parks Act of 1976 forbids new mining claims within certain National Parks and Monuments, although there remain 1,100 pre-existing mining claims in 15 National Parks, where mining can potentially occur as long as certain environmental terms and conditions are met. No mining has occurred within National Park boundaries since 1976.

Many abandoned hard rock mining sites come under the jurisdiction of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Commonly known as Superfund, CERCLA was enacted by Congress on December 11, 1980, and amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. No mine since 1990 has been added to the CERCLA list.

In 1997, the Environmental Protection Agency (EPA) released a National Hardrock Mining Framework to help implement a multi-media, multi-statute approach for dealing with environmental concerns posed by hard rock mining. Input came from many stakeholders, including other federal agencies, states, tribes, local government, industry, and environmental groups. The framework provides a comprehensive look at all facets of the hard rock industry to meet the difficult challenge of promoting both economic growth and environmental protection.

There have been several recent attempts in Congress to address mining reform. In 2015, Congress considered HR 963, a two-part resolution in support of mining reform, but the bill has shown no movement since then. The bill addressed royalty limitations, protection of areas of critical environmental concern, mandatory restoration, and the establishment of a Hard Rock Minerals Fund to be used for reclamation and restoration purposes.

Another attempt to mitigate the environmental effects of mining was a rule, proposed by the EPA on December 1, 2016, for the purpose of determining whether to add further financial requirements under

the amended Superfund Act in order to increase the likelihood that cleanup costs would not fall to taxpayers. On February 25, 2017, newly appointed EPA director Scott Pruitt extended the rule's comment period due to pushback by the mining industry, Western governors, and congressional delegations. The EPA determined that no addition financial assurance was necessary, and the rule was signed on December 1, 2017.

A January 2017 rule changed accounting rules to make it easier to transfer ownership of federal public lands to states, local governments, or tribes. Opponents argue that federal lands should be managed for the benefit of all Americans. While attention is more often focused on fossil fuel opportunities, an April 2017 BLM strategy document included "streamline leasing and permitting for hard rock mining" on its list of priorities.

State Laws: Senate Bill 100's Goal 5 (OAR 660-015-0000(5), dealing with Natural Resources, Scenic and Historic Areas, and Open Spaces, provides specific provisions for the inventory and protection of mineral and aggregate resources. However, laws crafted to protect mining often create a situation of "dueling goals," particularly when it comes to Goal 3 (preserve and maintain agricultural lands), and Goal 6 (maintain and improve the quality of the air, water and land resources of the state). Political pressure can build to cause policy shifts, prodding legislators to favor one goal over another.

The Department of Geology and Mineral Industries (DOGAMI) has two program areas: Geologic Survey and Services (GSS) and Mineral Land Regulation and Reclamation (MLRR), which regulates Oregon's mining industry.

The 1991 Oregon Chemical Process Mining Law regulates mines that use chemicals, most commonly cyanide or sulfuric acid, to leach metals from mined ore. To prevent the environmental damage that had occurred elsewhere, the law establishes bonding requirements to cover potential cleanup costs.

In 2017, the Legislature passed SB 644, a multi-faceted mining bill that allows mining sites with significant mineral resources to bypass statewide land use planning goals and rules that apply to exclusive farm use (EFU) zones, as long as an applicant meets specific requirements.

Oregon has developed a Consolidated Mining Permit process (ORS 517.952 to 517.989) to ensure coordination between state agencies, federal agencies, and local governments.

Process and Products

Mining operations can be categorized by: leasable, such as oil and coal; salable, such as rock and gravel; or locatable which includes precious and base metals. This report discusses locatable operations. For operations covering more than 5 acres, a plan of operation and meeting National Environmental Policy Act (NEPA) requirements. These plans include an economic evaluation and a description of the reclamation of the mine site to pre-mining conditions. Operations under 5 acres require only a notice of operation.

Owing to its predominantly volcanic geologic heritage, there are few areas in Oregon suitable for mining of locatable minerals. There are currently no active commercial-scale metal (precious and base metal) mines in Oregon. However, according to DOGAMI, gold, silver, copper, lead, zinc, nickel, and uranium have been mined in the past and may in the future be mined in Oregon.

Environment

Hard rock mining has the potential to disturb large amounts of land area and to have detrimental impacts on many aspects of the natural environment. Real and potential environmental impacts from hard rock mining include: physical disturbance; contamination of surface and ground water, air, and soil; and habitat and ecosystem disturbance. Environmental impacts can vary greatly depending on the type and location of the mining operation.

Oregon's Department of Geology and Mineral Industries (DOGAMI) works with a county and/or federal agency to coordinate environmental analyses for mining operations. State law only requires an environmental analysis for the chemical process aspects of mining, but state and federal agencies are required to coordinate efforts to reduce conflicts and redundancy.

Oregon Administrative Rule (OAR) 632 Division 37) outlines the permitting process for chemical process mines. Calico Resources USA Corporation is currently considering construction of an underground gold mine and surface mill complex at Grassy Mountain in Malheur County that falls under the current OAR rules.

In Oregon, the majority of hard rock mining claims and activities occur on public lands, which are governed by a series of federal land management laws that specify the goal of using public lands for many valuable public purposes. Stipulations such as that included in the Organic Act require mining operators to work with Federal agencies to mitigate potential impacts to public and natural resources wherever possible. Examples of such mitigation could be buffer zones along waterways or sensitive wildlife habitat, timing of operations, or relocating trails. Mitigation also includes restoration plans for both temporary and permanent mine closure.

In 1981, the Bureau of Land Management (BLM) issued regulations that required all hard rock mining operations to reclaim land disturbed by mining after mining operations had ceased. In 2001, BLM amended those regulations to require all mining operators to provide bonds or financial assurances before beginning exploration or mining operations on land managed by the BLM.

In 2016, the EPA was ordered by the U.S. Court of Appeals to issue rules requiring mining operations to provide financial assurance that they would be able to follow CERCLA Section 108(b) (costs of mining clean up, reclamation and long-term monitoring). However, in December 2017, the EPA decided not to issue final regulations, citing the adequacy of existing state and federal regulator controls and the risk of tax payer-funded actions vs the risk of environmental impacts with modern mining practices.

In Oregon, DOGAMI coordinates with BLM on reclamation bonds to incorporate stipulations for restoration laid out in Oregon Administrative Rule, Chapter 517, Mining and Mining Claims (2015). This collaboration includes the development and cost estimate of a restoration and reclamation plan, including an annual reassessment of the cost of reclamation. The cost of long-term monitoring may be included in the restoration bond.

Alternatives to Mining

Technology, transportation, construction, energy, and more – our modern society is dependent on the minerals we mine from the earth. Examples are: nickel, the key to making stainless steel; copper, silver, and gold, used in electronic devices; and zinc, a critical component in galvanized metals. Alternatives to using these metals usually incorporate other non-renewable materials such as limestone for cement, or plastics (derived from oil) in fabrication. However, the best alternatives to reducing the amount of primary mineral use are the three R's of recycling: reducing consumption, reuse, and recycling of these precious, non-renewable earth materials.