



## ALASKA DEPARTMENT OF NATURAL RESOURCES OFFICE OF PROJECT MANAGEMENT AND PERMITTING

### PERMITTING LARGE MINE PROJECTS IN ALASKA

Numerous state, federal, and local government permits and approvals are required before development and operation of a large hardrock mine in Alaska can begin. Each project presents unique challenges; therefore, the specific permits and approvals can vary substantially from project to project. The State of Alaska has developed the Large Mine Permitting Team (LMPT) process to coordinate much of the State agency permitting for such projects. This process, which may also integrate with federal and local government permitting processes, seeks to improve mine permitting by implementing a robust, coordinated process that is predictable, consistent and responsive to the needs of regulatory agencies and project applicants. The process also seeks to provide relevant information to the public in a transparent, understandable way and offer productive means for citizens to provide their input.

The Alaska Department of Natural Resources, Office of Project Management and Permitting (OPMP), may coordinate the permitting of large mine projects in the state, per Alaska Statute (AS) 38.05.020(b)(9). For applicants that choose to participate in the LMPT process, OPMP assigns a project coordinator to serve as the primary state contact and to manage the project-specific LMPT. Each LMPT is an interagency group of regulatory experts that works cooperatively with large mine applicants and operators, federal resource agencies, and the Alaska public to ensure that projects are designed, operated and reclaimed in a manner consistent with state laws and regulations. The project coordinator's primary responsibility is to ensure a coordinated process with minimum duplication. This often involves tailoring the process to fit specific project needs.

Some of the permits and approvals that may be required include, but are not limited to, the following:

#### ALASKA DEPARTMENT OF NATURAL RESOURCES (ADNR)

**Plan of Operation Approval.** This approval authorizes the plan of operations for non-coal mines, and is required for all mining projects on state land. ADNR's Division of Mining, Land and Water, Mining Section issues this approval. ADNR generally issues a courtesy public notice prior to final approval.

**Reclamation Plan and Bond Approval.** This approval authorizes the reclamation plan and bond cost estimate for non-coal mines on all lands in Alaska. ADNR's Division of Mining, Land and Water, Mining Section issues this approval. Bonds can include financial assurances for long-term environmental management obligations, post-mining. ADNR generally issues a courtesy public notice prior to final approval.

**Right-of-Way for Access and Utilities.** For projects on state land, a right-of-way is required for infrastructure such as roads, pipelines, and powerlines. Other access authorizations may be required for non-State lands as well. ADNR's Division of Mining, Land and Water, Lands Section issues this approval. Public notice is required prior to final approval.

**Millsite Lease.** A Millsite Lease is required for mine project facilities on State land. This lease gives the applicant a surface property right for the associated facilities. ADNR's Division of Mining, Land and Water, Mining Section issues this lease. Public notice is required prior to final approval.

**Permit to Appropriate Water.** Appropriation of a significant amount of water on a non-temporary basis requires authorization by a Water Rights Permit. A Water Right is a property right for the use of public surface and subsurface waters. Temporary uses of a significant volume of water, for up to five years, require a Temporary Water Use Authorization. ADNR's Division of Mining, Land and Water, Water Section issues these permits and authorizations. Water Right Permits for appropriations over 5,000

gallons per day require prior public notice, while Temporary Water Use Authorizations are generally publicly noticed as a courtesy.

**Dam Safety Certification** A Certificate of Approval to Construct and a Certificate of Approval to Operate must be obtained for any significant dam in the State. These certificates involve a detailed engineering review of the dam's design and operation. The certificates are issued by ADNR's Division of Mining, Land and Water, Dam Safety and Construction Unit.

**Upland or Tideland Leases.** An applicant may require a property interest in lands outside the boundaries of their mine site. A Tideland Lease is required for use of state-owned tidelands for marine facilities such as docks. Likewise, for use of state-owned uplands, a lease is required for facilities such as transportation and staging facilities. ADNR's Division of Mining, Land and Water, Lands Section issues these leases. Public notice and a Best Interest Finding are required prior to final approval.

**Material Site and Material Sale.** If materials such as sand, gravel or rock, are needed from state lands off a Millsite Lease, a separate Material Site must be approved. Once approved, a Material Sale may be approved from that site. ADNR's Division of Mining, Land and Water, Lands Section issues both approvals. Prior public notice is required for a Material Site.

**Winter Travel Permits.** Cross-country travel on snow or ice roads is commonly used to stage equipment and supplies for a project. A permit from Division of Mining, Land and Water, Lands Section must be obtained before constructing such roads on state land, or conducting overland travel. Crossings of fish-bearing water bodies by snow or ice roads also require authorization by The Alaska Department of Fish and Game, Division of Habitat prior to construction (see below).

**Cultural Resources Review.** Consultation with the Alaska Office of History and Archaeology / State Historic Preservation Office is required to demonstrate avoidance, minimization, or mitigation of adverse effects to significant cultural resources. State law requires all activities requiring licensing or permitting from the State of Alaska, or conducted by State agencies for public construction and improvement, to comply with the Alaska Historic Preservation Act (AS 41.35.070). Projects on federal lands in Alaska or that include federal licensing, permitting, or funding require compliance with Section 106 of the National Historic Preservation Act (54 USC 306108).

## **ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (ADEC)**

**Integrated Waste Management Permit and Financial Responsibility.** The Integrated Waste Management Permit authorizes the disposal of tailings, waste rock, and wastewater that are not discharged into waters of the United States. This permit usually requires pre-operational, operational and post-closure monitoring. The permit also requires proof of financial responsibility (i.e. bonding) to assure compliance with applicable closure standards and post-closure monitoring requirements. Public notice is required prior to final approval.

**Alaska Pollutant Discharge Elimination Permit.** The State of Alaska has authority to administer the National Pollutant Discharge Elimination System (NPDES) program for the mining sector under 18 AAC 83, Alaska Pollution Elimination System (APDES) program. All facilities in Alaska that have a discharge to surface or marine waters of the United States are required to obtain an APDES permit prior to discharging. Under this program mine discharges are still required to meet applicable (40 CFR 440.104) New Source Performance Standards (NSPS) and state water quality standards, whichever provides the more stringent limitation. APDES permits require regular monitoring to ensure compliance with permit stipulations and the protection of water quality. Public notice is required prior to final approval.

**Storm Water Discharge Pollution Prevention Plan.** ADEC administers APDES Storm Water General Permits for both construction activities and during operational phases of the facilities through the APDES Multi-Sector General Permit for industrial activities. ADEC approves Storm Water Pollution Prevention Plans (SWPPPs) that include storm water best management practices. The facility may have separate APDES permits to cover waste water and storm water discharges, or the requirements may be combined

into one APDES permit.

**Domestic and Non-Domestic Wastewater Disposal Permits.** Under 18 AAC 72, ADEC permits wastewater discharges to State land and groundwater. If injection wells are part of the wastewater disposal plan, then the requirements for the Environmental Protection Agency's (EPA) Underground Injection Control (UIC) Class V wells must be met in addition to any requirements in a state wastewater permit.

**Certificate of Reasonable Assurance for 404 Permits.** Activities involving dredging or discharge of fill material within waters of the United States are governed by the terms and conditions of a Clean Water Act (CWA) Section 404 Permit from the U.S. Army Corps of Engineers. CWA Section 401 also requires the applicant to obtain state certification that any discharge under CWA Section 404 will comply with applicable state water quality standards.

**Air Quality Permits.** The construction, modification, and operation of mining facilities that produce air contaminant emissions require a state Air Quality Control Permit to Construct and a separate Air Quality Control Permit to Operate. The determination to require a permit is based on the source location, total emissions, and changes in emissions for sources specified in 18 AAC 50.300(a). Generally, air quality must be maintained at the lowest practical concentrations of contaminants specified in the Ambient Air Quality Standards of 18 AAC 50.020(a). Public notice is required prior to final approval.

**Approval to Construct and Operate a Public Water Supply System.** Prior to start of construction, ADEC must approve, in writing, detailed engineering reports, plans, and specifications for the construction alteration, or modification of a public water system. Once construction has been completed, ADEC must approve operation of a public water system.

**Plan Review for Non-Domestic Wastewater Treatment System.** Engineered plans for disposal of wastewater from milling operations and other non-domestic wastewater sources must be submitted to ADEC for approval through either a state Wastewater Disposal Permit or an APDES Permit. Public notice is required prior to final approval.

**Plan Review and Construction Approval for Domestic Sewage System.** The construction and operation of facilities that collect, treat, and dispose of wastewater is governed by a plan review to ensure that minimum standards are applied. Detailed engineering reports, plans, and specifications must be certified by a registered Professional Engineer.

**Oil Discharge Prevention and Contingency Plan.** Approval by ADEC of an oil discharge prevention and contingency plan is required prior to commencement of operation of above-ground tank facilities capable of storing 420,000 or more gallons of refined petroleum product or 210,000 or more gallons of crude oil. These contingency plans are reviewed every three years. (See 46.04.060 and 18 AAC 75).

## **ALASKA DEPARTMENT OF FISH AND GAME (ADF&G)**

**Fish Habitat, Special Area, and Scientific Collection Permits.** ADF&G, Division of Habitat has the statutory responsibility for protecting freshwater anadromous fish habitat and providing free passage for anadromous and resident fish in fresh water bodies (AS 16.05.841-871). Any activity or project that is conducted below the ordinary high water mark of an anadromous stream requires a Fish Habitat Permit. A Fish Habitat Permit is required before any action is taken to construct a hydraulic project, or use, divert, obstruct, pollute, or change the natural flow or bed of a specified river, lake, or stream, or use wheeled, tracked, or excavating equipment or log-dragging equipment in the bed of a specified river, lake, or stream.

If a project is within a state refuge, sanctuary, or critical habitat, any activity within such special area will require a Special Areas Permit from ADF&G, Division of Habitat.

An applicant must also obtain permits from ADF&G to collect, possess, or transport wildlife, fish, shellfish,

amphibian, or aquatic plant resources for educational, scientific, or propagative uses.

At operating mines, ADF&G staff may conduct fish surveys and studies as part of on-going environmental monitoring.

## **FEDERAL AGENCIES**

The involvement of federal agencies may vary for each project, but most projects require authorizations from the U.S. Army Corps of Engineers at a minimum. OPMP coordinates with appropriate federal agencies throughout the permitting process, and may serve as a Cooperating Agency under provisions of the National Environmental Policy Act (NEPA).

**U.S. Army Corps of Engineers (USACE) Section 404 and Section 10 permits.** A discharge of dredged or fill material, including mine tailings, into waters or wetlands of the United States is prohibited unless authorized by the USACE under Section 404 of the CWA. Activities that typically require a Section 404 permit include road or bridge construction, construction of tailings or water storage dams, and stream diversion structures.

The USACE is responsible for determining consistency of the proposed action with the Section 404 (b)(1) guidelines. Section 404 permit actions are subject to NEPA (40 CFR Part 6, Subpart F). Therefore, USACE would issue a Record of Decision in conjunction with the final permit action.

Under Section 10 of the Rivers and Harbors Act of 1899, an applicant is required to obtain a permit from the USACE for any structure or activity that could obstruct navigable waters.

**U.S. Environmental Protection Agency (EPA) Permits.** In addition to its review authority under NEPA, the EPA may use its CWA authority to review the Spill Prevention, Control and Counter-measure (SPCC) Plan required for oil storage facilities with an above ground oil storage capacity greater than 1,320 gallons, as well as any facility with underground tank storage capacity greater than 42,000 gallons. The EPA also retains review authority over APDES permits issued by ADEC and over the state water quality standards incorporated into APDES permits. Under Section 404 (c), the EPA also has review authority over the USACE 404 Permit decisions.

**Appropriate Federal Land Manager.** If a project is on federal lands in Alaska, authorizations must be obtained from the appropriate managing agency, such as the U.S. Forest Service or Bureau of Land Management. If the mine requires review under NEPA, the federal land manager is the lead agency and will conduct the environmental review. The lead federal agency is also responsible for conducting formal government-to-government consultations with federally recognized Alaska Native tribes prior to making any final determinations. For select projects, OPMP may request to represent the State of Alaska as a formal Cooperating Agency under provisions of NEPA. The lead federal agency has discretion to accept or reject such a request.

**US Fish and Wildlife Service.** Federal agencies must conduct a Section 7 Endangered Species Act (ESA) consultation with the U.S. Fish and Wildlife Service (USFWS) regarding any threatened or endangered species that may be affected by the proposed project. If threatened or endangered species occur in the area and they may be affected, the formal consultation process must define measures designed to avoid and minimize the impact of the project on listed species.

The USFWS implements provisions of the Bald Eagle Protection Act and the Migratory Bird Act. The USFWS also provides technical expertise and provides comments and recommendations to federal agencies via the Fish and Wildlife Coordination Act (16 USC 661 et. Seq.).

**National Marine Fisheries Service.** Federal agencies may have to conduct a Section 7 Endangered Species Act consultation with the National Marine Fisheries Service (NMFS) in accordance with the ESA. If any impacts are predicted for any threatened or endangered marine species, specific design measures to protect the affected species must be developed.

In a similar manner, federal agencies must consult with NMFS concerning any action that might adversely affect essential fish habitat (EFH). EFH are those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EPA will provide NMFS with an EFH assessment to initiate the consultation process.

## **THE LARGE MINE TEAM PROCESS**

The goal of the LMPT process is to coordinate the sequencing and intergovernmental review of the numerous permits required of a large, complex hardrock mine. The team reviews associated technical documents and provides coordinated comments, when necessary. OPMP coordinates joint-agency public notices and assigns a project coordinator to function as a primary point-of-contact to the applicant, agencies, and publics. The LMPT process reduces duplication of effort and improves intergovernmental communication and public information sharing compared with multiple single-agency reviews.

Federal authorizations usually trigger the requirement for an Environmental Assessment (EA) or Environmental Impact Statement (EIS) pursuant to NEPA. The State of Alaska can participate as a Cooperating Agency in the EIS process, and the LMPT endeavors to align the state's permitting process with the EIS process.

OPMP also coordinates the LMPT process, to the extent possible, with local governments.

The following is a summary of the general process OPMP follows for this team approach to permitting a large mine in Alaska:

**Pre-Application.** One of the first tasks for the LMPT is to work with the potential applicant to ensure the pending permitting process and regulatory requirements are understood, that appropriate baseline environmental data are collected, to define application information requirements, and develop a realistic schedule.

**Permit Application.** The applicant submits an application package, typically consisting of the Plan of Operations, Reclamation Plan, Waste Management Plan, reclamation and closure cost estimates, associated monitoring and management plans, and baseline study reports. The LMPT reviews the package to make sure all the necessary information for a complete review is included.

**Review and Analysis.** The LMPT collaboratively reviews the proposed plans and supporting documents to inform their respective agencies' permitting decisions and to ensure the project design complies with all applicable state laws and regulations.

**Issues Resolution.** The team works with the applicant to resolve issues, usually resulting in modifications to the project design, operation, and monitoring plans.

**Public notice and Permit Issuance.** Draft Plan of Operations Approval, Reclamation Plan Approval, Integrated Waste Management Permit, and financial assurance costs are publicly noticed together with final proposed plans and supporting documents from the applicant. Public comments are reviewed by the LMPT and incorporated, as appropriate, into final agency approvals, which are then posted publicly on ADNR's Large Mine Project website (link below).

**Post Permit Issuance.** Once the permits are issued and construction and operation begins, the LMPT is active in permit maintenance, site inspections, and compliance monitoring.

**Reclamation and Final Closure.** The LMPT ensures that reclamation and closure objectives are met, including long-term environmental management, and that financial assurances are in place to ensure an orderly and stable closure.

**Funding the LMPT Process.** OPMP establishes a Memorandum of Understanding (MOU) with each

applicant and Reimbursable Service Agreements (RSAs) with each participating state agency to reimburse the State's costs for the LMPT process. An MOU does not guarantee an applicant receives any of the required permits, rather it provides the means for the State to dedicate experienced staff to the coordinated permitting effort. These agreements are renewed annually, and "not-to-exceed" limitations are applied to help control costs.

**QUESTIONS OR FOR MORE INFORMATION**

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