



# Final Environmental Impact Statement Pogo Gold Mine Project

Delta, Alaska

National Pollutant Discharge Elimination System (NPDES)  
Permit Application No. AK-005334-1

September 2003



Prepared By:



U.S. Environmental Protection Agency  
Region 10  
Office of Water, NPDES Permits Unit

Cooperating Agencies:



U.S. Army Corps of Engineers



Alaska Department of Natural Resources

With Assistance From:

**Baker**  
Engineering & Energy  
Michael Baker Jr., Inc.

Volume I

*Final*

# **Pogo Gold Mine Environmental Impact Statement**

Prepared by:

Lead Federal Agency: Environmental Protection Agency  
Region 10  
1200 Sixth Avenue  
Seattle, WA 98101

Cooperating Agencies: United States Army Corps of Engineers  
State Of Alaska, Department of Natural Resources

With assistance from:

Michael Baker Jr., Inc.

September 2003

- Included 17 pages of representative public and agency comments as well as 4 pages of tribal comments
- Described how the comments were evaluated
- Listed the 17 issues identified by the scoping comments
- Identified the project's component options to address those issues
- Described how evaluation criteria were developed for the issues and how those criteria would be used to evaluate the component options and identify project alternatives to be analyzed in the EIS
- Discussed activities that would follow the scoping process and identified sources of information
- Presented an EIS/NPDES permitting process and time line diagram
- Presented a draft EIS table of contents

### **Government-to-Government Consultations**

In addition to the EIS scoping effort, pursuant to Executive Order 13084 (Consultation and Coordination with Indian Tribal Governments), EPA undertook a concerted government-to-government consultation effort with the 13 Tribes listed below. These Tribes were considered to be potentially affected by the proposed Pogo Gold Mine by virtue of their location (1) within a 125-mile radius of the proposed Pogo Mine site, or (2) within the potentially affected Tanana River watershed. A detailed description of this consultation process is contained in Section 7.13 of this EIS.

Circle Native Community	Native Village of Tanana
Dot Lake Village Council	Nenana Native Village
Healy Lake Tribal Council	Northway Traditional Council
Manley Village Tribal Council	Tanacross Village Council
Mentasta Traditional Council	Tetlin Village Council
Native Village of Eagle	Tok Traditional Council
Native Village of Minto	

## **1.6 Issues and Concerns**

The scoping comments identified 17 major issues related to construction, operation, and closure of the proposed project. These issues served as the basis for development of criteria that were used to evaluate the various project options and alternatives, as described in Chapter 2. The 17 issues identified from public, agency, and tribal scoping comments were:

- Surface and groundwater quality
- Wetlands
- Fish and aquatic habitat
- Wildlife
- Recreational resources and uses
- Existing privately-owned lands and existing recreational and commercial uses
- Subsistence and traditional uses



- Air quality
- Noise
- Safety
- Reclamation
- New industrial and commercial uses
- Cultural resources
- Socioeconomics
- Cumulative impacts
- Technical feasibility
- Economic feasibility

## 1.7 Draft EIS Public Comments and Responses

The draft EIS comment period formally began with a notice of availability published in the *Federal Register* on March 14, 2003, and closed 60 days later on May 13, 2003, although comments received after the closing date have been considered and responded to. In addition, public meetings during which comments and testimony were taken were conducted in Delta Junction on April 29, 2003, and in Fairbanks on April 30, 2003.

The 184 commenters made a total of approximately 641 comments. These figures do not include comments received during government-to-government consultations discussed above. All public and agency comments, and responses to them, are contained in Appendix E of this final EIS.

## 1.8 Agency Roles and Responsibilities

### 1.8.1 Responsible Official and Decision to Be Made

The Pogo Mine project requires a NPDES permit for project-related water discharges. The project is defined as a new source by the NPDES regulations (40 CFR 122.2 and 122.29). Under the CWA Section 511(c)(1), a new source is subject to compliance with NEPA prior to taking a final action on the NPDES permit (40 CFR Part 6, Subpart F). Thus, EPA is following a specific procedure that began with scoping and data collection and continues with analysis of data to identify and evaluate alternatives. The results of these analyses are documented in this EIS and form the basis for EPA's decision on the NPDES application. EPA's Region 10 Administrator is the responsible official for this decision.

The responsible official may decide to adopt:

- The No Action Alternative
- One of the action alternatives
- An alternative that combines features of more than one alternative
- One of the action alternatives with additional mitigation measures

EPA's ROD documenting the EIS conclusions will result in a decision on the Applicant's NPDES permit application. EPA will approve or deny the application, or require that the Applicant revise its proposed project prior to approval.

The Pogo Mine project requires a Clean Water Act Section 404 permit for discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). The impact on waters of the U.S. has been documented in this EIS and will be the basis for the COE decision on the Applicant's Section 404 permit application. The alternatives



analysis contained in this EIS will be the basis for determining compliance with the EPA's Section 404 (b)(1) guidelines.

The State of Alaska will use this EIS to assist in its separate permit adjudication process, and will make its determinations on a schedule coordinated with the EIS process. If EPA were to decide against issuance of a NPDES permit, the state could still issue its authorizations if the project was redesigned so that an NPDES permit would not be required.

## 1.8.2 Agency Roles and Responsibilities (Permits and Approvals)

Preparation of this EIS and the permitting process are related but also distinct activities. The EIS is designed to explore project alternatives and discuss relative environmental impacts. Permitting gives government decision-makers a process to enforce certain conditions that are mandated by statute or regulation, and to require individual stipulations to eliminate or mitigate project-specific adverse environmental impacts identified in the EIS.

Many federal and state permits and approvals would be required for the Pogo Mine Project. Following is a list of the agencies involved in permitting, consultations, or otherwise providing authorizations for the project, with a description of their major permits, authorizations, or authorities. A succinct list of the major permits and authorizations required for project development is contained in Chapter 9.

### **Federal Government**

#### **Environmental Protection Agency (EPA)**

- Section 402 NPDES Water Discharge Permit
- Section 404 Permit Review
- Spill Prevention, Control, and Countermeasure (SPCC) Plan
- Stormwater Construction and Operation Permit
- Underground Injection Control (UIC) Permit
- Section 106 Historical and Cultural Resources Protection
- ✦ **Section 402 NPDES Water Discharge Permit.** Sections 301 and 306 of the CWA require that EPA develop wastewater effluent standards for specific industries, including gold mines. These standards are established both for existing sources and new sources. Because the project is a new source, New Source Performance Standards (NSPS) for gold mines and mills are applicable to the project (40 CFR 440.104). Section 402 of the CWA requires that the Pogo Mine project obtain an NPDES permit for its proposed discharge. The NPDES permit would be required to meet the NSPS or the water quality standards, whichever provides the more stringent limitation.

In accordance with Section 511(c)(1) of the CWA, NPDES permit actions for new sources are subject to NEPA (40 CFR Part 6, Subpart F). Therefore, EPA would issue a ROD before the final permit action.

EPA is the NPDES permitting authority in Alaska. The Alaska Department of Environmental Conservation (ADEC), pursuant to Section 401 of the CWA, must provide certification to EPA that the discharge would comply with any applicable



state water quality standards. The ADEC certification determines whether wastewater mixing zones are, or are not, permitted.

- ✦ **Section 404 Permit Review.** Section 404 of the CWA authorizes the COE to issue permits for the discharge of dredged or fill materials into waters of the United States (described below). EPA, under Section 404(c), has a review authority and may prohibit or withdraw the specification (permitting) of a site upon a determination that the use of the site would have an unacceptable adverse effect on municipal water supplies, shellfish beds and fisheries areas, or recreational areas.
- ✦ **Spill Prevention, Control, and Countermeasure (SPCC) Plan.** Section 311 of the CWA establishes requirements relating to discharges or spills of oil or hazardous substances. Discharges or spills of oil in "harmful quantities" are prohibited. EPA has established a requirement for the preparation of an SPCC Plan by facilities that handle substantial quantities of oil (40 CFR 112). A registered engineer must certify the plan.
- ✦ **Stormwater Construction and Operation Permit.** Under Section 402(p) of the CWA, EPA has promulgated regulations for control of stormwater runoff. For the Pogo Mine project, these sources would include runoff from roads, laydown areas, the mill and camp sites, and other surface disturbances. The EPA approach to this type of discharge is generally to require implementation of best management practices (BMPs). If an NPDES permit is needed for the project, the stormwater control requirements from the NPDES program may be incorporated into the NPDES permit.
- ✦ **Underground Injection Control (UIC) Permit.** The UIC program is authorized by Part C of the Safe Drinking Water Act (SDWA), Public Law 93-523, and Amendments. Injection wells are defined broadly to include boreholes, sumps, dry wells, drain fields, and other subsurface disposal devices used to put fluids into the ground. The Class V category consists of injection wells that are not included in the other classes of wells (e.g., Class I, II, or III). EPA will determine whether any discharge in the proposed project will be covered by a Class V UIC permit.
- ✦ **Section 106 Historical and Cultural Resources Protection.** Under Section 106 of the National Historic Preservation Act, as lead federal agency EPA is responsible for ensuring overall protection of historical, cultural, and archaeological sites and resources for the Pogo Mine project. This role would include consultation with the State Historic Preservation Office (SHPO) within the ADNR.
- ✦ **Hazardous Waste Generator Identification Number.** Under the Resource Conservation and Recovery Act (RCRA), an entity that generates hazardous wastes must register and receive an identification number before commencing operations.

### U.S. Army Corps of Engineers (COE)

The COE is a cooperating agency with EPA for the Pogo Mine project EIS.

- Section 404 Dredge and Fill Permit
- Section 106 Historical and Cultural Resources Protection
  - ✦ **Section 404 Dredge and Fill Permit.** Section 404 of the CWA authorizes the COE to issue permits for discharge of dredged or fill material into waters of the United States, including wetlands. The CWA prohibits such a discharge, except pursuant to a Section 404 Permit. To the degree that they affect "waters of the United States,"





various activities undertaken in connection with mining operations might require a Section 404 Permit (including road or bridge construction, construction of dams for tailings storage, water storage dams, and stream diversion structures).

The COE is responsible for determining that the proposed project is in compliance with Section 404(b)(1) guidelines (40 CFR 203). Under Section 404(c), EPA has review authority over the COE 404 Permit decisions.

- ✦ **Section 106 Historical and Cultural Resources Protection.** Under Section 106 of the National Historic Preservation Act, the COE is responsible for ensuring protection of historical, cultural, and archaeological sites and resources for the Pogo Mine project within the COE's permit area. This role would include consultation with the SHPO.

### **National Marine Fisheries Service (NMFS)**

- Threatened and Endangered Species Act (ESA) Consultation (Section 7)
- Essential Fish Habitat
- Fish and Wildlife Coordination
  - ✦ **Threatened and Endangered Species Consultation (Section 7).** EPA must conduct an ESA Section 7 consultation with the National Marine Fisheries Service (NMFS) regarding any threatened or endangered species under its jurisdiction that may be affected by the proposed project. The level of required informal or formal consultation would depend on whether listed species occur in the project area, and, if so, whether they likely would be affected by the proposed project. If listed species occur in the area and they likely would be affected, EPA and NMFS would undergo the formal consultation process. This is typically an involved process that results in measures designed to minimize the impact of the project on listed species.
  - ✦ **Essential Fish Habitat.** In a similar manner, EPA must consult with NMFS concerning any action that might adversely affect essential fish habitat (EFH). EFH includes habitats necessary to a species for spawning, breeding, feeding, or growth to maturity. EPA will provide NMFS with an EFH assessment.
  - ✦ **Fish and Wildlife Coordination.** The NMFS also provides technical expertise and makes comments and recommendations to federal agencies via the Fish and Wildlife Coordination Act (United States Code [USC], Title 16, Section 661 *et seq.*).

### **U.S. Fish and Wildlife Service (USFWS)**

- Threatened and Endangered Species Consultation (Section 7)
- Bald Eagle Protection Act Clearance
- Migratory Bird Protection
- Fish and Wildlife Coordination
  - ✦ **Threatened and Endangered Species Consultation (Section 7).** EPA must conduct an ESA Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) regarding any threatened or endangered species under its jurisdiction that may be affected by the proposed project. The level of required informal or formal consultation would depend on whether listed species occur in the project area, and, if so, whether they likely would be affected by the proposed project. If listed species occur in the area and they likely would be affected, EPA and USFWS would undergo the formal consultation process. This can be, but is not always, an involved process.



- ✦ **Bald Eagle Protection.** The USFWS implements provisions of the Bald Eagle Protection Act by ensuring that development does not affect nest trees.
- ✦ **Migratory Bird Protection.** The USFWS implements provisions of the Migratory Bird Protection Act.
- ✦ **Fish and Wildlife Coordination.** The USFWS also provides technical expertise and makes comments and recommendations to federal agencies via the Fish and Wildlife Coordination Act (16 USC 661 *et seq.*).

#### Mine Safety and Health Administration (MSHA)

- Mine Identification Number
- Miner Training and Retraining Plan Approval
  - ✦ **Mine Identification Number.** Because worker health and safety aspects of the Pogo Mine Project would be regulated by federal health and safety standards, the Applicant must obtain a Mine Identification Number from the Mine Safety and Health Administration (MSHA). Agency representatives would make routine inspections of the operation and also would be involved in educational and safety training programs. The Pogo Mine project would be responsible to provide MSHA with reports of accidents, injuries, occupational diseases, and related data.
  - ✦ **Miner Training and Retraining Plan Approval.** MSHA must approve specific programs for the education, training, and retraining of all employees.

#### Bureau of Alcohol, Tobacco, and Firearms (BATF)

- License to Transport Explosives
- Permit and License for Use of Explosives
  - ✦ **License to Transport Explosives.** Interstate transportation of explosives is regulated by the Bureau of Alcohol, Tobacco, and Firearms (BATF). The Pogo Mine project or its explosive supplier would need to obtain a license for transport of such explosives to the site.
  - ✦ **Permit and License for Use of Explosives.** BATF also would have to issue an Explosives User Permit to the Pogo Mine project.

#### Federal Communications Commission (FCC)

- Radio License
  - ✦ **Radio License.** Radio and microwave station authorizations would need to be obtained from the Federal Communications Commission (FCC). A license must be obtained for any two-way radio installations made at the project site.

#### Federal Aviation Administration (FAA)

- Notice of Landing Area Proposal
- Notice of Controlled Firing Area for Blasting
  - ✦ **Notice of Landing Area Proposal.** An entity proposing to construct a landing area must notify the Federal Aviation Administration (FAA) of the location, length, bearing, and other details of the proposed landing area.
  - ✦ **Notice of Controlled Firing Area for Blasting.** Entities engaged in the use of explosives also must notify the FAA of the location of such areas.





### U.S. Coast Guard (USCG)

- Bridge Construction Permit Across Navigable Waters
  - ✦ **Construction Permit for a Bridge Across Navigable Waters.** To ensure safe navigability of waterways, construction of a bridge across navigable waters must be approved by the U.S. Coast Guard (USCG).

### State of Alaska

The State of Alaska is a cooperating agency with EPA for the Pogo Mine project EIS.

### Alaska Department of Natural Resources (ADNR)

- Plan of Operations Approval
- Upland Mining Lease
- Millsite Lease
- Lease of Other State Lands
- Miscellaneous Land Use Permit
- Road Right-of-Way
- Joint Pipeline Office Approval
- Power Line Right-of-Way
- Certificate of Approval to Construct a Dam
- Certificate of Approval to Operate a Dam
- Temporary Water Use Permit
- Permit to Appropriate Water
- Material Sale
- Burn Permit
- Cultural Resources Authorizations
- Mining License
- Fish Passage
- Fish Habitat Permit
  - ✦ **Plan of Operations Approval.** ADNR must approve the plan of operations for a mining project on state lands. The plan of operations includes the project description, Reclamation Plan, Monitoring Plan, Transportation Plan, and any road maintenance agreements. Reclamation Plan approval includes a mandatory bonding provision, prohibits undue and unnecessary degradation, and contains performance standards requiring that lands be returned to a stable condition. The Reclamation Plan would apply to the upland mining and millsite lease areas.
  - ✦ **Upland Mining Lease.** Prior to initiation of production, the holder of a mining claim or group of claims may request a lease for the purposes of producing minerals from the claims.



- ✦ **Millsite Lease.** Use of state lands for other than temporary purposes requires a lease. This lease requirement includes use of lands for mill sites or other mine support purposes.
- ✦ **Lease of Other State Lands.** The Applicant is considering a lease of state lands near the Richardson Highway for purposes of a bus terminal, shop, storage, road maintenance equipment storage, and parking. If issued, this lease would require a separate Reclamation Plan, insurance, and bonding.
- ✦ **Miscellaneous Land Use Permit.** Any winter road use during project development would be authorized under a separate permit and would require a separate bond and Reclamation Plan.
- ✦ **Access Road Right-of-Way.** A grant of right-of-way (ROW) is required across state lands for roads, power lines, and pipelines. If a road ROW were granted, the Applicant and ADNR would enter into a road maintenance agreement.
- ✦ **Joint Pipeline Office Approval.** Any activities that cross the Trans-Alaska Pipeline System (TAPS), such as the all-season road or winter road ground access options, would require authorization from the Federal/State Joint Pipeline Office.
- ✦ **Power Line Right-of-Way.** A grant of ROW is required across state lands for power lines.
- ✦ **Certificates of Approval to Construct a Dam.** A Certificate of Approval to Construct a Dam is required for the construction, enlargement, alteration, repair (other than routine maintenance), or abandonment of a dam pursuant to Alaska Administrative Code (AAC), Title 11, Chapter 93. Dam construction would be subject to design and supervision by an Alaska registered professional engineer.
- ✦ **Certificate of Approval to Operate a Dam.** A Certificate of Approval to Operate a Dam would be issued by the Division of Mining, Land, and Water after completion of construction and approval of the completion report, as-built drawings, Operations and Maintenance Manual, and if required, an Emergency Action Plan.
- ✦ **Temporary Water Use Permit.** Temporary uses of a significant volume of water, for up to 5 years, requires a Temporary Water Use Permit.
- ✦ **Permit to Appropriate Water.** Appropriation of a significant amount of water on other than a 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. The right becomes attached to the land where the water is used. Once use of the appropriated water has been fully developed and demonstrated, a Certificate of Appropriation securing the holder's rights to the water would be issued. This certificate is not automatic; it depends on actual use of the full amount of water and compliance with all permit conditions.
- ✦ **Material Sale.** Material sales (Alaska Statute [AS] 38.05.020) would be used for gravel borrow materials not located within the boundary of the millsite lease or a road ROW. Each site would require a Development Plan that addresses the handling of timber and slash, a bond, and a Reclamation Plan.
- ✦ **Burn Permit.** Anyone wishing to burn outside an incinerator is required to obtain a Burn Permit (AS 41.15.050 and 41.15.060) during the burn season between May 1 and September 30. Whereas the ADEC Permit to Open Burn primarily is concerned with air quality, this ADNR permit primarily is concerned with fire control.

- ✦ **Cultural Resources Authorizations.** A Field Archaeology Permit must be issued from the SHPO for archaeological field work on state lands. The SHPO also would be consulted by the COE as it exercises its National Historic Preservation Act Section 106 responsibilities. The SHPO must concur that cultural resources would not be adversely affected, or that proper procedures would be used to minimize or mitigate impacts that would occur.
- ✦ **Mining License.** A mining license would be required before the mine entered production.
- ✦ **Fish Passage.** AS 16.05.840 (Fishway Act) requires that an individual or governmental agency notify and obtain authorization from ADNR for activities within or across a stream used by fish if the department determines that such uses or activities could represent an impediment to the efficient passage of fish. Culvert installation, stream realignment or diversion, dams, low-water crossings, and construction, placement, deposition, or removal of any material or structure below ordinary high water all require approval from ADNR. Construction activities also must be coordinated with critical spawning periods of anadromous fish.
- ✦ **Fish Habitat Permit (Anadromous Fish Act).** AS 16.05.870 (Anadromous Fish Act) requires that an individual or governmental agency provide prior notification and obtain approval from ADNR "to construct a hydraulic project or use, divert, obstruct, pollute, or change the natural flow or bed" of a specified anadromous water body, or "to use wheeled, tracked, or excavating equipment or log-dragging equipment in the bed" of a specified anadromous water body. All activities within or across a specified anadromous water body and all instream activities affecting a specified anadromous water body require approval from ADNR.

#### Alaska Department of Environmental Conservation (ADEC)

- Certificate of Reasonable Assurance for Section 402 and 404 Permits
- Waste Disposal Permits
- Air Quality Control Permit to Construct and to Operate
- Air Quality Permit to Open Burn
- Approval to Construct and Operate a Public Water Supply System
- Plan Review for Non-Domestic Wastewater Treatment System
- Non-Domestic Wastewater Disposal Permit
- Plan Review and Construction Approval for Domestic Sewage System
- SPCC Plan Review Approval
- Oil Discharge Prevention and Contingency Plan (winter road option only)
- Storm Water Discharge Pollution Prevention Plan
- Food Sanitation Permit
- ✦ **Certificate of Reasonable Assurance for Section 402 and 404 Permits.** Activities involving discharge of wastewater or fill material into waters of the United States are not only governed by the terms and conditions of a CWA Section 402 NPDES Permit from EPA and a CWA Section 404 Permit from the COE, but also require a Certificate of Reasonable Assurance from the State of Alaska. These certificates can only be issued if ADEC can state that the proposed activity would comply with



Section 401 of the CWA and that any discharge would comply with applicable state water quality standards.

- ✦ **Waste Disposal Permits.** A waste disposal permit is required to establish, modify, or operate a waste disposal facility. Public notice is required for this permit, and permits are issued for periods of as long as 5 years. For the Pogo project, definitions of solid waste include the dry stack tailings pile; the tailings with cyanide residue to be redeposited underground; potentially acid-generating waste rock, which could present an environmental problem associated with management of the waste material; and disposal of construction debris and garbage. A soil absorption system also would be covered, and domestic solid waste may be covered.
- ✦ **Air Quality Control Permit to Construct and to Operate.** 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) (suspended particulates, sulfur oxides, carbon monoxide, ozone, nitrogen dioxide, reduced sulfur compounds, and lead). An Applicant must submit an application and supplemental information as required by 18 AAC 50.3000(b). Permits are issued for a maximum 5-year period, renewable by the same procedure as the original application.
- ✦ **Air Quality Permit to Open Burn.** If the Applicant were to contemplate open burning of cleared vegetation or non-commercial timber, a separate Air Quality Permit to Open Burn would be required. Whereas the ADNR Burn Permit primarily is concerned with fire control, this ADEC permit primarily is concerned with air quality.
- ✦ **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.** Plans for disposal of wastewater from milling operations and other non-domestic wastewater sources are required as part of an application for a state Wastewater Disposal Permit and an NPDES Permit. ADEC would review an NPDES application for adequacy under its Section 401 Certificate of Reasonable Assurance authority. ADEC must review and approve treatment facility plans.
- ✦ **Non-Domestic Wastewater Disposal Permit.** ADEC also must authorize the discharge of wastewater into or upon all waters and land surfaces of the state. If injection wells are part of the Wastewater Disposal Plan, the requirements of EPA's Underground Injection Control Class V Wells must be met in the state Non-domestic Wastewater Permit.
- ✦ **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. Plans for disposal of gray water, sewage, or process water must be reviewed prior to construction of facilities that involve subsurface wastewater disposal. Detailed

engineering reports, plans, and specifications must be certified by a registered professional engineer.

- ✦ **SPCC Plan Review Approval.** ADEC would use its CWA Section 401 certification authority to review the SPCC Plan required by EPA for storage of large quantities of oil.
- ✦ **Oil Discharge Prevention and Contingency Plan.** Approval of an oil discharge contingency plan is required prior to commencement of operation of vessels and oil barges on state waters, or for oil terminal facilities capable of storing 10,000 barrels or more. These contingency plans are reviewed every 3 years. For the Pogo Mine project, this plan would be required only if the winter road access option that would require large fuel storage volumes at the mine site were selected.
- ✦ **Storm Water Discharge Pollution Prevention Plan.** ADEC would use its CWA Section 401 certification authority to review the Storm Water Discharge Pollution Prevention Plans required by EPA for construction activities that would disturb the ground surface and potentially lead to runoff pollution.
- ✦ **Food Sanitation Permit.** Construction and operation of permanent, temporary, and mobile food services, regardless of whether there is a charge for food, are governed by the Alaska Eating and Drinking Establishment Regulations, which include provisions for plan review and issuance of a food service permit.

#### **Department of Transportation and Public Facilities (ADOT/PF)**

- Driveway Permit
  - ✦ **Driveway Permit.** ADOT/PF uses state highway standards to review and approve plans for modifying, realigning, or constructing state roads, including driveways or roadways entering them.

## **1.9 Existing Permits and Approvals**

To date, a number of permits have been obtained by the Applicant during the course of surface and subsurface exploration. The major permits, their nature, and where to find additional information about them are described below.

**Army Corps of Engineers (COE)** – Leroy Phillips, Army Corps of Engineers, P.O. Box 6898, Elmendorf AFB, AK 99506-6898; Phone: (907) 753-2828

- CWA Section 404 (wetlands) permit to fill 14 acres of wetlands to construct access roads and rock storage pads (March 4, 1999)

**Environmental Protection Agency (EPA)** – Cindi Godsey, 222 West 7<sup>th</sup> Avenue, Anchorage, AK 99513; Phone: (907) 271-6561

- NPDES Storm Water Construction General Permit coverage notice (November 2, 1999)

**Alaska Department of Natural Resources (ADNR)** – Steve McGroarty, Division of Mining, Land and Water Management, 3700 Airport Way, Fairbanks, AK 99709-4699; Phone: (907) 451-2795

- Miscellaneous Land Use Permit for use of the Goodpaster Winter Trail (December 22, 1997)



- Approved Plan of Operations and Reclamation Plan for Advanced Exploration (underground) (March 2, 1999)

**Alaska Department of Environmental Conservation (ADEC) – Pete McGee, Watershed Management, 610 University Avenue, Fairbanks, AK 99709; Phone: (907) 451-2101**

- Wastewater Disposal Permit to discharge treated mine drainage by way of an underground injection well (March 1, 1999)

**Alaska Department of Fish and Game (ADFG) – Jack Winters, Habitat Division, 1300 College Road, Fairbanks, AK 99701; Phone: (907) 459-7289**

- Several Fish Habitat Permits for activities potentially affecting anadromous fish streams and fish passage (equipment crossing streams, water withdrawal, ice bridges)

## 1.10 EIS Structure

The format and content of this EIS follows the CEQ regulations at 40 CFR 1502 and EPA's regulations at 40 CFR 6 Subpart F. The purpose of the EIS is to evaluate the overall direct, indirect, and cumulative impacts of the project alternatives on the mine area as well as adjacent areas. The structure of the EIS accomplishes this evaluation in a four-step process.

First, in Chapter 2 (Alternatives), the project options and alternatives that have been considered by EPA are discussed. The chapter describes how scoping issues were identified, explains how evaluation criteria were developed and how options were screened, and discusses how the alternatives were identified and evaluated. It describes the Applicant's Proposed Project as well as the alternatives, including the No Action Alternative.

In the second step, Chapter 3 (Affected Environment) describes the environment of the project area as it exists today, *before* the project is developed. This description provides a basis against which project development impacts may be measured.

In the third step, Chapter 4 (Environmental Consequences) describes the environmental impacts of the Proposed Action and alternatives, determines the degree of those impacts on the human environment, and discusses whether those impacts could be mitigated. Figuratively, the EIS superimposes the project description (Chapter 2) on the existing environment (Chapter 3) to determine whether impacts would occur (Chapter 4).



## Chapter 7 Compliance with Environmental Laws and Executive Orders

---

In its role as lead federal agency for the Pogo Mine Environmental Impact Statement (EIS), the U.S. Environmental Protection Agency (EPA) is required to demonstrate compliance with certain environmental laws and executive orders (EOs). The purpose of this chapter is to demonstrate how EPA has so complied.

Each specific act or EO is addressed below. The discussion cites the implementing regulations or policies, presents a brief summary of the applicability of the act or EO, and describes how the Pogo Mine EIS process has complied with it.

### 7.1 Clean Air Act

*Air Quality Act of 1967 (42 United States Code [USC] 7401 et seq.), as amended in 1970 (Clean Air Act)*

Four sections of the Clean Air Act must be considered by EPA during the EIS process.

#### **General Conformity**

**Regulations** 40 Code of Federal Regulations (CFR) Parts 6, 51, and 93

##### **Applicability**

General Conformity, as outlined in Section 176, applies to all federal activities other than those by the Federal Highway Administration (FHWA) and the Federal Transit Administration, in nonattainment and maintenance areas. The purpose of General Conformity is to ensure that any federal action does not cause or contribute to any violation of a National Ambient Air Quality Standard (NAAQS).

##### **Pogo EIS Compliance**

Not applicable because the project is not located in a nonattainment or maintenance area.

#### **Transportation Conformity**

**Regulations** 40 CFR Part 93

##### **Applicability**

Transportation Conformity requires EPA and the U.S. Department of Transportation (USDOT), along with local governmental agencies, to integrate air quality planning with transportation planning in areas of nonattainment or maintenance.

##### **Pogo EIS Compliance**

Not applicable because the project is not located in a nonattainment or maintenance area.



### **Air Toxics**

**Regulations**      40 CFR Parts 61 and 63

#### **Applicability**

Section 112 requires that emissions standards be developed for hazardous air pollutants. These standards are entitled National Emissions Standards for Hazardous Air Pollutants. One hundred eighty-nine toxic air pollutants were listed to be reduced. Major sources and area sources also were listed to be regulated by source category. However, Section 112 only applies to federal actions that emit pollutants in a designated source category. In addition, the source must be categorized as a major source of emissions.

#### **Pogo EIS compliance**

Not applicable because the project would not be a major source of toxic air pollutants.

### **Prevention of Significant Deterioration**

**Regulations**      40 CFR §52.21 and §51.166

#### **Applicability**

Prevention of Significant Deterioration (PSD) was created to manage industrial growth in NAAQS attainment areas to prevent degradation of air quality. PSD programs are usually implemented by the states, and state programs must be approved by the EPA as meeting minimal requirements. Three major criteria determine whether PSD requirements apply to a project. First, the project must be defined as a major source. Second, whether the source is or would be located in a PSD area must be defined. Third, whether a regulated pollutant would be emitted must be identified.

#### **Pogo EIS Compliance**

While the Pogo project would emit regulated pollutants and is in a PSD area, it is not defined as a major source. The Alaska Department of Environmental Conservation (ADEC) has determined that a PSD permit would not be required.

## **7.2 Clean Water Act (CWA)**

### ***Water Pollution Control Act of 1972, as amended in 1977 (Clean Water Act)***

Two sections of the Clean Water Act must be considered by EPA during the EIS process.

### **Wetlands Protection (Section 404)**

**Regulations**      40 CFR Parts 230 and 231 and 45 CFR 85344

#### **Applicability**

Section 404 of the CWA was written to minimize impacts to waters of the United States (including wetlands) by regulating the discharge of dredged and/or fill material. This section provides authorities to both the EPA and the COE as regulatory agencies. The COE issues permits authorizing the discharge of dredged and fill material according to the Section 404(b)(1) guidelines established by the EPA. The COE cannot issue a



Section 404 permit unless it has been confirmed that a project is in compliance with these guidelines. As the lead agency, EPA must provide a discussion of how the proposed project complies with Section 404(b)(1) guidelines. Permits to discharge dredged or fill material may only be issued if the Applicant has demonstrated to the maximum extent practicable: the avoidance of wetland impacts, the minimization of potential impacts, and if determined necessary, compensatory mitigation as appropriate for any unavoidable impacts.

### **Pogo EIS Compliance**

Both EPA, as lead federal agency for the Pogo Mine EIS, and the COE, as a cooperating agency, will ensure that the proposed permitted action would be in compliance with the CWA Section 404(b)(1) guidelines. The permit will be denied if the discharge would not comply with the guidelines. The mechanism to ensure compliance will be the Section 404 application and review process, which will require adherence to the Section 404(b)(1) guidelines before a permit would be issued. The COE evaluation criteria and procedures (including the public notice) are outlined in Appendix B of this final EIS. Chapter 3 of this document describes the baseline wetland conditions in the proposed project area, and Chapter 4 contains specific acreages for wetlands that would be disturbed for each alternative.

## **National Pollutant Elimination Discharge System (Section 402)**

**Regulations**      **40 CFR Parts 122, 123, 124, 125, and 440**

### **Applicability**

Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit program that regulates the discharge of pollutants from point sources into waters of the United States. To obtain an NPDES permit, a new gold mining project like the Pogo project must comply with EPA's New Source Performance Standards (NSPS), which can be found at 40 CFR 440.104. NSPS for the ore mining and dressing point source category require adherence to technology-based effluent limits for several metals, pH, and total suspended solids. An NPDES permit may also impose water quality-based effluent limits to ensure that a facility's discharge complies with applicable water quality standards when technology-based requirements are insufficient to meet those standards.

### **Pogo EIS Compliance**

The Applicant submitted a new source NPDES permit application on August 1, 2000, and an amended application on January 2, 2003. This EIS has been prepared to fulfill EPA's NEPA requirement and support its review of that NPDES permit application.

## **7.3 Noise Control Act**

**Regulations**      **CFR 40 Parts 201, 202, 204, 205, and 211**

### **Applicability**

The Noise Control Act was created to coordinate federal research on noise, authorize federal noise emission standards, and provide information to the public about noise reduction. Two agencies regulate noise standards: the Occupational Safety and Health Administration (OSHA) and the Federal Aviation Administration (FAA). OSHA deals only



with workplace standards, while the FAA concentrates on aircraft standards. EPA considers noise impacts as part of its Section 309 review of all EISs, and discusses possible noise impacts of the action in its EISs.

#### **Pogo EIS Compliance**

Chapter 3 of the EIS presents baseline noise conditions in the proposed project area and identifies human receptors. Detailed predictions of project-related noise levels at these receptors, including existing residents along Shaw Creek Road, are presented in Chapter 4. No high impacts are expected. Noise effects on wildlife are discussed. Noise levels within the mill and camp complex would be addressed by OSHA.

## **7.4 Safe Drinking Water Act**

**Regulations** 40 CFR 141 through 149

#### **Applicability**

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The SDWA authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. EPA, states, and water systems then work together to make sure these standards are met.

#### **Pogo EIS Compliance**

The SDWA standards apply to both the quality of the drinking water supplied to the domestic camp and to the quality of waste water discharged from the project to the Goodpaster River. The Applicant and the EIS team conducted extensive analyses of potential water quality impacts to ensure protection of both drinking water and aquatic life in the Goodpaster River system. The results of these analyses are presented in Chapter 4 of the EIS.

## **7.5 National Historic Preservation Act**

**Regulations** 36 CFR Parts 61, 63, 65, 68, 79, and 800

#### **Applicability**

The National Historic Preservation Act (NHPA), as amended, directs federal agencies to integrate historic preservation into all activities that either directly or indirectly involve land use decisions. Before approving or carrying out a federal, federally assisted, or federally licensed undertaking, Section 106 of the NHPA requires federal agencies to take into consideration the impact that the action may have on historic properties that are included on, or are eligible for inclusion on, the National Register of Historic Places. Section 106 also requires that federal agencies provide the Advisory Council on Historic Preservation (ACHP) with the opportunity to comment on the undertaking. The Section 106 review process is usually carried out as part of a formal consultation with the State Historic Preservation Officer (SHPO), the ACHP, and any other parties, such as Indian Tribes that have knowledge of, or a particular interest in, historic resources in the project area. Formal consultation is concluded upon preparation of a Memorandum of Agreement among the consulting parties that addresses the treatment of any adverse effects.



### Pogo EIS Compliance

EPA as lead federal agency and the COE as a cooperating agency each have Section 106 responsibilities for the proposed project. The project has been subjected to Section 106 review, including participation by the SHPO.

In addition, a cultural resources workshop with Native organizations and individuals to gather information relating to cultural resource in the Pogo mine project area was carried out on August 21, 22, and 23, 2001, in Tok, Dot Lake, and Fairbanks and on September 24, 2001, in Anchorage. Interviews were coordinated by the Healy Lake Traditional Council and were attended by Native individuals from throughout the region. A separate, stand-alone report titled *Results of Native Consultations Concerning Cultural Resources in the Pogo Mine Area of Potential Effect, Cultural Resources Trip Report* (Harritt, 2001) was developed to document these consultations.

EPA, as lead federal agency, in consultation with the COE and the SHPO, has determined that some cultural resources sites may meet the following three criteria: (1) they could be eligible for the National Register of Historic Places under 36 CFR 60.4; (2) they could be adversely affected by construction of the Pogo project; and (3) they have not yet been mitigated under permits previously issued by the SHPO. These sites, therefore, could require mitigation under a programmatic agreement (PA) among the EPA, COE, ACHP, SHPO, and the Applicant. The PA contains provisions for discovery of prehistoric, historic, or paleontological remains during construction, operation, and closure of the Pogo Mine. The PA is provided as Appendix C.1 of this final EIS.

## 7.6 Endangered Species Act

**Regulations** 50 CFR Parts 402, 450, 451, 452, and 453

### Applicability

The Endangered Species Act (ESA) requires that federal agencies protect and conserve endangered and threatened species. Federal agencies are responsible for reviewing possible effects that their actions may have on any listed threatened or endangered species or their critical habitats. If the federal agency determines that the project may affect a listed species or critical habitats, it must initiate consultation with either the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or both. Projects that are funded, authorized, or carried out by federal agencies must not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of their habitat.

### Pogo EIS Compliance

Informal ESA consultations were initiated by EPA with the USFWS and NMFS by letter on August 14, 2000. On September 7, 2000, the USFWS responded that there are no threatened or endangered species in the project area. The service noted that the recently delisted American Peregrine Falcon (*Falco peregrinus anatum*) nested within the project area. It concluded, however, that the proposed project and associated activities are not likely to adversely affect peregrine falcons. Because of delay in the EIS schedule, on September 25, 2002, and on May 9, 2003, USFWS again stated there are no threatened or endangered species in the project area.

EPA again requested informal consultation with the NMFS on December 2, 2002. On December 23, 2002, NMFS responded that no endangered species under NMFS





jurisdiction are likely to occur in the vicinity of the project site, and critical habitat for listed species does not occur in the project vicinity. NMFS also stated that no marine mammals protected under the Marine Mammals Protection Act are expected to occur in the vicinity of the project site.

Copies of these documents are contained in Appendix C.2 of this final EIS.

## 7.7 Magnuson-Stevens Fishery Conservation and Management Act – Essential Fish Habitat

**Regulations**      50 CFR Part 600

### Applicability

The Magnuson-Stevens Fishery Conservation and Management Act establishes eight regional fishery management councils that are responsible for preparing fishery management plans for optimum yield. Fishery management councils are to submit these plans, including the identification of essential fish habitat (EFH), to the Secretary of Commerce. EFH is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Federal agencies must consult with the NMFS for any action that may adversely affect EFH. NMFS is responsible under Section 305(b) to compile information on EFH and make it available to other federal and state agencies. This requirement can be satisfied under National Environmental Policy Act (NEPA) review.

### Pogo EIS Compliance

On August 14, 2000, EPA sent NMFS a copy of the Pogo Mine EIS scoping document and requested an EFH managed species and habitat list. On December 2, 2002, EPA again requested an EFH managed species list. EPA prepared a draft EFH assessment and found there would be no direct, indirect, or cumulative impacts on any EFH within the Pogo project area. That draft EFH assessment was contained in Appendix F.3.2 of the Draft EIS (DEIS), and a copy of that document was sent to NMFS for its review with a request that it specifically comment on the adequacy of the draft EFH assessment. On May 19, 2003, the NMFS responded that it concurred with EPA's assessment that no substantial adverse individual or cumulative effects of EFH are expected in the project area. A copy of this letter is contained in Appendix C.3 of this final EIS.

## 7.8 Floodplain Management Executive Order

**Executive Order**      11988 (May 24, 1977)

### Regulations

EPA implementing procedures are outlined in “Statement of Procedures on Floodplain Management and Wetlands Protection,” 40 CFR Part 6 (January 5, 1979).

### Applicability

The Floodplain Management Executive Order requires that federal agencies avoid long- and short-term impacts to floodplains to the greatest extent possible. This EO calls for federal agencies to avoid impacts associated with the occupancy and modifications of floodplains and to avoid support of floodplain development wherever there is a practicable alternative. According to the “Floodplain Management Guidelines,” there is a





multi-step, decision-making process that must be fulfilled by federal agencies to help them avoid adverse impacts. The steps include the following: determining if a proposed action would indeed be in a floodplain, conducting public review of the action, identifying and evaluating alternative plans and sites, assessing possible impacts, development of mitigation measures, and informing the public of decisions made. Various actions are subject to this order: acquiring, managing, or disposing of federal lands or facilities; federally created, financed, or assisted construction or improvements; and federal activities that affect land use.

### **Pogo EIS Compliance**

Pursuant to the floodplain management guidelines, EPA has determined that portions of the proposed Pogo Mine project would be in the floodplain of the Goodpaster River. Through the EIS process, which provides a public review of the proposed project, EPA has identified and evaluated project components and alternative sites outside the Goodpaster floodplain, and has developed mitigation measures.

With only one exception, the major mine area facilities would be located permanently in Liese Creek Valley well above the Goodpaster River floodplain. The temporary components that would be within the floodplain during the 2- to 3-year construction period largely would be the already existing exploration camp infrastructure below the present 1525 Portal that would be used to house workers and store materials and supplies. These facilities include the worker camp, offices, fuel storage, and helipad. These facilities would be removed and reclaimed once construction was completed. The existing temporary mineralized and nonmineralized rock storage piles near the 1525 Portal would be moved out of the floodplain during the mine development phase.

Certain other temporary facilities would be developed within the Goodpaster floodplain during the construction period. These facilities include additional gravel pits, a concrete batch plant, construction laydown area, and overburden stock piles. These facilities also would be removed and reclaimed after construction.

New facilities or existing facilities that would be within or remain within the floodplain for the duration of project operation would be existing and future gravel pits (including the off-river water treatment works), water supply and underground injection wells, the 3,000-foot airstrip, and the access road.

EPA identified and analyzed alternative sites for the airstrip outside the floodplain, but concluded that because of topography and weather constraints, other sites posed considerable safety hazards and were not deemed practicable (Appendix A.1.).

## **7.9 Wetlands Protection Executive Order**

**Executive Order**      11990 (May 24, 1977)

### **Regulations**

Implementing procedures are outlined in Appendix A of 40 CFR Part 6, "Statement of Procedures on Floodplain Management and Wetlands Protection" (January 5, 1979).

### **Applicability**

The Wetlands Protection Executive Order seeks to minimize destruction, loss, or degradation to wetlands from federal actions on federal lands. Wherever effects to wetlands cannot be avoided, federal agencies are to include all practicable measures to



minimize adverse impacts. The EO applies to acquisition, management, and disposition of federal lands and facilities, construction/improvement projects in conjunction with a federal agency, and federal activities/programs that affect land use. Because no federal lands would be involved with permitting the Pogo project, this EO does not apply to the project.

#### **Pogo EIS Compliance**

While this EO is not applicable to the Pogo project, both EPA, as lead federal agency for the Pogo Mine EIS, and the COE, as a cooperating agency, have ensured that the proposed project would be in compliance with the CWA Section 404(b)(1) guidelines before it would be allowed to proceed. How the guidelines would be met is described above in Section 7.2.1 (Wetlands Protection).

## **7.10 Migratory Bird Protection Executive Order**

**Executive Order**      **13186 (January 10, 2001)**

**Regulations**      **None**

#### **Applicability**

The Migratory Bird Protection Executive Order directs all federal agencies to avoid or minimize the impacts of their actions on migratory birds, and to take active steps to protect birds and their habitat. It directs that agencies ensure that environmental analyses of federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.

#### **Pogo EIS Compliance**

This EIS addresses migratory bird species and specifically discusses the species of concern. Chapter 3 presents project area baseline information for these species, and Chapter 4 discusses impacts and mitigation measures that would be taken to minimize impacts.

## **7.11 Environmental Justice Executive Order**

**Executive Order**      **12898 (February 11, 1994)**

#### **Applicability**

The Environmental Justice (EJ) Executive Order directs federal agencies to develop environmental justice strategies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations (including Native American Tribes), with the goal of making EJ a part of their mission and achieving environmental protection for all communities. The EO recognizes the importance of research, data collection, and analysis, particularly with respect to multiple and cumulative exposures to environmental hazards. The EO also provides for agencies to collect, maintain, and analyze information on patterns of subsistence consumption of fish, vegetation, or wildlife. Additionally, the EO stresses access to public information on, and an opportunity for public participation in, matters relating to human health and the environment.



The memorandum that accompanied the EO highlights important ways for federal agencies to consider EJ under NEPA. These include identifying the affected area to determine if minority populations or low-income populations would be affected, analyzing the effects of the agencies' actions on minority populations and low-income populations, evaluating public health data, and assessing possible cultural, social, or historical factors that may be affected by the action. Mitigation measures identified as part of the NEPA process should address significant and adverse environmental effects of proposed actions on minority populations and low-income populations. Moreover, agencies are required to provide opportunities for effective community participation in the NEPA process.

### **Pogo EIS Compliance**

To identify minority and low-income populations in the potentially affected project area, the most recent available census data (1990) was collected and compared with 1980 and 1970 data to ensure that any developing growth trends in minority populations were identified. This analysis, coupled with the collection of anecdotal data in Delta Junction and the surrounding area, suggested that three population groups warranted further research to ensure compliance with the EJ EO:

Native American population

Russian population

- Korean population

### **Native American Population**

While the Government-to-Government (G2G) EO goes a long way toward ensuring that Native American populations have meaningful participation in the environmental assessment of projects that may affect them, the EJ EO seeks to address all potential remaining issues. EPA has both overlapping and separate responsibilities when it comes to communities and Tribes. EJ addresses low-income and people-of-color communities. Native Americans are considered people of color under the EJ EO, and Native Americans in the vicinity of the project area largely fall under the low-income criterion also. Under EJ, EPA needs to have meaningful public participation with all communities that would be disproportionately affected. This public participation can be different from the G2G consultations that EPA has with Tribes. EJ also addresses issues that Tribal Governments do not officially raise, but that may be raised by tribal members that are not part of the government (Letourneau, 2001).

To comply with the EJ EO, EPA made a special effort to encourage individual tribal members to identify issues of concern during the scoping process whether or not they were members of the Tribal Government. In fact, all residents in the 13 villages identified as potentially affected were added to the project mailing list.

The 13 Tribes listed below were considered to be potentially affected by the proposed Pogo Gold Mine project by virtue of their location: (1) within a 125-mile radius of the Pogo Mine site, or (2) within the potentially affected Tanana River watershed.

- Circle Native Community
- Dot Lake Village Council
- Healy Lake Tribal Council
- Native Village of Tanana
- Nenana Native Village
- Northway Traditional Council



- Manley Village Tribal Council
- Mentasta Traditional Council
- Native Village of Eagle
- Native Village of Minto
- Tanacross Village Council
- Tetlin Village Council
- Tok Traditional Council

The consultation efforts that were undertaken by EPA to ensure the EJ EO requirements for Native Americans and the Consultation and Coordination with Indian Tribal Governments EO requirements that were addressed are presented in detail in Section 7.13 of this document.

In addition to the special outreach efforts described in Section 7.13, the following sections of this document include information germane to compliance with the EJ EO:

- Sections 3.16 and 4.11 Socioeconomics
- Sections 3.17 and 4.12 Land Use
- Sections 3.18 and 4.13 Subsistence
- Sections 3.19 and 4.14 Cultural Resources

**Subsistence** Another effort to comply with the EJ EO was adoption of the State of Alaska's expansive definition of subsistence for impacts analysis in this document. As defined by Alaska Statutes (AS), "subsistence uses means the noncommercial, customary and traditional uses of wild, renewable resources by a resident domiciled in a rural [*sic*] area of the state for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of the fish and wildlife resources taken for personal or family consumption, and for customary trade, barter, or sharing for personal or family consumption" (AS 16.05.940[32]). Subsistence activities could include hunting, fishing, trapping, wood gathering, and berry picking.

Specific consultations with Native organizations and individuals relating to potential subsistence and cultural resource impacts of the Pogo mine project were carried out on August 21, 22, and 23, 2001, in Tok, Dot Lake, and Fairbanks, and on September 24, 2001, in Anchorage. These consultations provided opportunities for the actual users to identify subsistence resources regardless of the formal definition of subsistence. Interviews were coordinated by the Healy Lake Traditional Council and were attended by Native individuals from throughout the region. A separate, stand-alone subsistence report titled *Subsistence Uses of the Upper Tanana River Valley: Historical and Contemporary Patterns* (Stephen R. Braund & Associates [SRB&A, 2002a]) was developed to document these consultations. This report was submitted in draft form to the Healy Lake Tribal Council for comment, and its comments were incorporated into the final report.

Through the G2G process, Native concerns and mitigation measures suggested by Native representatives to address those concerns were identified by the communities that would be potentially affected. These concerns and mitigation measures are discussed in Sections 3.18 and 4.13 of this EIS, which address subsistence issues, including seasonal use of the project area.

**Cultural resources** Measures taken during the EIS process to protect Native American cultural resources are described in Section 7.5 (NHPA) of this chapter.



## **Chapter 9 List of Major Permits and Authorizations**

This chapter lists the major permits and authorizations that the Applicant would need to obtain for construction and operation of the Pogo Mine project.

### **9.1 Federal Permits**

#### **U.S. Environmental Protection Agency (EPA)**

- Section 402 National Pollutant Discharge Elimination System (NPDES) Water Discharge Permit
- Section 404 Permit Review
- Spill Prevention, Control, and Countermeasure (SPCC) Plan
- Stormwater Construction and Operation Permit
- Underground Injection Control (UIC) Permit
- Section 106 Historical and Cultural Resources Protection
- Hazardous Waste Generator (Resource Conservation and Recovery Act [RCRA]) Identification Number

#### **U.S. Army Corps of Engineers (COE)**

- Section 404 Permit for Discharge of Dredge or Fill Materials into Waters of the U.S., including wetlands
- Section 106 Historical and Cultural Resources Protection

#### **Mine Safety and Health Administration (MSHA)**

- Mine Identification Number
- Notification of Legal Identity
- Miner Training and Retraining Plan Approval

#### **Bureau of Alcohol, Tobacco, and Firearms (BATF)**

- License to Transport Explosives
- Permit and License for Use of Explosives

#### **Federal Communications Commission (FCC)**

- Radio License

#### **Federal Aviation Agency (FAA)**

- Notice of Landing Area Proposal
- Notice of Controlled Firing Area for Blasting



**U.S. Coast Guard (USCG)**

- Construction Permit for a Bridge Across Navigable Waters

**U.S. Department of Transportation (USDOT)**

- Hazardous Materials Registration Number

**9.2 State of Alaska Permits****Department of Natural Resources (ADNR)**

- Plan of Operations Approval
- Upland Mining Lease
- Millsite Lease
- Lease of Other State lands
- Miscellaneous Land Use Permit
- Road Right of Way
- Joint Pipeline Office Approval
- Power Line Right of Way
- Certificate of Approval to Construct a Dam
- Certificate of Approval to Operate a Dam
- Temporary Water Use Permit
- Permit to Appropriate Water
- Material Sale
- Burn Permit
- Cultural Resources Authorizations
- Mining License
- Fish Habitat Permit
- Fish Passage Permit

**Department of Environmental Conservation (ADEC)**

- Certificate of Reasonable Assurance for Section 402 and 404 Permits
- Waste Disposal Permits
- Air Quality Control Permit to Construct and to Operate
- Air Quality Permit to Open Burn
- Approval to Construct and Operate a Public Water Supply System
- Plan Review for Non-Domestic Wastewater Treatment System





- Non-Domestic Wastewater Disposal Permit
- Plan Review and Construction Approval for Domestic Sewage System
- SPCC Plan Review Approval
- Oil Discharge Prevention and Contingency Plan (winter road option only)
- Storm Water Discharge Pollution Prevention Plan
- Food Sanitation Permit

#### **Department of Transportation & Public Facilities (ADOT/PF)**

- Driveway Permit

#### **Department of Public Safety**

- Approval to Transport Hazardous Materials
- Life and Fire Safety Plan Check
- Plan Review Certificate of Approval for each Building

#### **Department of Labor and Workforce Development (ADOL)**

- Certificate of Inspection for Fired and Unfired Pressure Vessel
- Employer Identification Number