Mining in Alaska Toolkit

A Publication of the Yukon River Intertribal Watershed Council with support provided by the Lannan Foundation

July 2018
Introduction

Background
In the state of Alaska, mining is a significant portion of the economy, contributing almost $100 million to the state of Alaska’s revenue every year.

In particular, the Yukon River Watershed bears both the risks and opportunities of mining. The risks, in potential threats to water quality and the landscape. The opportunities, in potential revenues and employment locally. In the Yukon River Watershed, most of the mining activity folks experience will be either exploration or placer mining. There are a few hard rock mines in the watershed, such as Fort Knox, that both produce significantly more revenue but bear more environmental risk. As of 2013, there are about 265 placer mines in the state of Alaska and 6 operating large mines (ISER).

The Yukon River Watershed Council developed this toolkit in order to aid communities in the Yukon River understand what rights they have and navigate legal and social systems in asserting those rights.

How this Toolkit Works
This toolkit is divided into five sections, listed below.

1. Mining In My Area
   Utilizing the Mining Map tool, users can find mining impacts in their area

2. Environmental Impacts
   Using the documents in the Technical Concerns section, users can understand the environmental risks of different types of mining

3. Mining Policy
   Using the documents in the Mining Policy section, users can understand the policies designed to protect their resources in Alaska and the best ways to assert those rights

4. Case Studies
   Using three case studies, users can see how to effectively engage in mining-related advocacy

5. Glossary
   Short definitions of key terms to help users understand the toolkit
Table of Contents

Mining in My Area
Mining Map

Environmental Impacts
Placer Mining
Hard Rock Mining

Mining Policy
Permitting Flowchart
Water Quality/Department of Environmental Conservation
Fish Habitat/Department of Fish and Game
Wetlands/Navigable Waters/US Army Corps of Engineers
Federal Land/Bureau of Land Management
State Land/General Mining/Department of Natural Resources
Industry Engagement
National Environmental Policy Act Review
Reclamation
Transboundary Mining Concerns

Case Studies
Red Dog Mine/Impact Benefit Agreements
Norton Sound Coastal Mining/Effective Public Comment
General Public Comment Tips

Glossary
Glossary
1. Mining in my Area
Mining in the Yukon River Watershed Map

Click on the photo to access an interactive map of mining activity within the Yukon River Watershed or visit https://goo.gl/rQqXCl

Click on blue points for more information about the mine, including external links. Use the filter to view mines by their status, and type the name of the mine in the search box to find it on the map.

Map includes information compiled from the Mineral Resource Data System a worldwide collection of the best available data, https://mrdata.usgs.gov/mrds/ maintained by the USGS, last up-dated in 2011, and Alaska Dept. of Natural Resources State Geo-Spatial Clearinghouse http://www.asgdc.state.ak.us/#911 which is continuously updated, Exploration data for the Yukon Territory is from Yukon Government, Energy, Mines and Resources, http://www.emr.gov.yk.ca/mining/mapsdatapubs.html, last up-dated in 2016. Historic prospects, that were not mined and are currently inactive were excluded from the dataset.

Additionally, the mine disturbance footprint is from 'Geist, M., M. Aisu, P. Lema & E. J. Trammell. 2017. Spatial estimates of surface mining footprints in northwest boreal ecoregions of Alaska and Canada.' at http://accs.uaa.alaska.edu/landscape-ecology/northwest-boreal-anthropogenic-footprint/
2. Environmental Impacts
Placer Mining

What is it?
Placer mining is one of the most common forms of mining in the state of Alaska. Placer mining consists of the removal of some sorts of sediment or rock, then crushing the sediment or rock.

Why?
The crushed material allows the heavier minerals to fall out when suspended in water. Placer mining is predominantly used to mine gold.

How?
Placer mining typically takes place in the streambed, meaning that miners must often divert the stream around the mining site. Bulldozers, hydraulic jets, or suction dredges might be used to expose or move the material of interest in mining.

Who regulates it?

Who?
Placer Mining, above a recreational level, is permitted at many agencies, including DNR, BLM, Army Corps, DEC, DFG. This is coordinated through a single permitting process known as the Application for Permits to Mine in Alaska (APMA), whereby a single operation sends the relevant notices to the relevant agencies.

How?
Placer mining is typically governed by general permits that govern the activity rather than the operation. To be eligible, these mines typically, must be less than 5 acres, remove less than 1000 tons of material, and divert no more than 2000 ft of a stream.
Impacts

Turbidity
Turbidity is a major concern when placer mining, as the mining process involves crushing materials in search of gold. Turbidity can stress fish in the stream. Additionally, crushed sediment can infill gravel and affect fish habitat.

Placer mining permits do not generally permit the discharge of untreated mining waste back into the stream. In particular, placer mining is typically permitted to have a mixing zone of 500 ft. so if turbidity is observed past that point please contact DEC.

Excessive Clearing
Excessive vegetation clearing is of concern, as it might lead to excessive erosion in the surrounding area.

If the mine appears to exceed 5 acres or moves more than 1000 tons of material, it likely is in violation of its general permits and must apply for an individual permit.

Helpful Links

Yukon Placer Secretariat
Hard Rock Mining

What is it?

Why?
Hardrock mining in the state takes place across the state for many minerals, from zinc, lead, and silver at Red Dog Mine to gold at the Fort Knox Mine. There are less than ten active hard rock mines in the state, though the generate a majority of the state's mining revenue due to the large amount and value of the minerals mined at each site.

How?
Typically, hard rock mining involves the removal of many layers of soil and rock above the mineral deposits to access them. This creates the image of multiple layers of an open-pit mine.

The mined ore from this process might need to be treated through a variety of chemical and physical processes. The waste from these processes is typically contained in many dams surrounding the site rather than discharged directly into the water.

Who regulates it?

Who?
Many agencies, primarily, DNR, DFG, BLM, Army Corps, DEC, DFG. Unlike lower-impact activities like placer mining, hard rock mining must receive individual permits for its operations from each agency.

How?
This is coordinated through two centers. For federal permits, the government leads an National Environmental Policy Act (NEPA) review, consisting of an Environmental Assessment (EA), and if necessary, an Environmental Impact Statement (EIS). The State coordinates through their Large Mine Permitting Team Processes.
Impacts

Turbidity
Like Placer Mining, turbidity is a potential impact of hardrock mining. Turbidity can impact aquatic life in the river. If you notice excessive turbidity downstream of a mine site, contact DEC.

Acid Drainage
The surrounding mineral in mining is often made up of sulfates, which can create sulfuric acid in water. A monitoring program for pH should be able to detect changes in pH.

Heavy Metals
Some heavy metals might be used in the processing of ore. These metals can be tested through laboratory sampling. Heavy metals affect both humans and the ecosystem. In humans, heavy metal exposure can cause cancer, abnormal human development, and the nervous system, among other effects. For more information on metal-specific impacts, check out resources from the Yukon Conservation Society here.

Proposed Mines
Donlin  Upper Kobuk Mineral Projects  Livengood
3. Mining Policy
Mining Permitting Flow Chart

Who owns the land?

Federal Land (NPS, BLM, etc.)
- BLM Permit Required; Potentially, land manager as well (USFS, NPS, FWS, etc.)
- State of Alaska Land
  - DNR Claim and Permitting Process

Private Land
- Permission of subsurface and surface rights holders
- Native Corporation Land
  - If Village Corporation land, Village and Regional approval. If Regional, just Regional approval

Is the mine discharging into a stream?

Either a general or individual APDES permit is required from DEC
- Note: It's very rare that a mine would not be required to have an APDES permit. Even mines that recycle 100% of their water are typically required to get an APDES permit.
Is the mine affecting a wetland?

A Clean Water Act Section 404 permit is required from USACE

Note: Most of Alaska could be considered a wetland, so again, it’s unlikely a mine would not need an APDES permit.

Is the mine altering the course of a navigable water body such as a large river or harbor?

A River and Harbors Act Section 10 permit is required from USACE

Is the mine in a fish rearing stream?

If mining uses a suction dredge with a diameter < 6” or 18 horsepower or less, or use of a sluice box and small water pump, a small scale mining permit is needed. If larger, an individual permit is required.

Other permits and approvals might be necessary, especially for large hard rock mines. DNR’s Large Mine Permitting Program is the best resource to understand the public process for those projects.
Water Quality Policy
Alaska Department of Environmental Conservation

Mining Permitting

DEC authorizes Point Source Discharges (e.g. wastewater from mining operations) into Waters of the United States.

These discharges must not harm the water more than what is allowable under the State of Alaska Water Quality Standards.

If the discharge complies with the standards, DEC must issue a permit.

There are two kinds of permits.
Find permits in your area here.

General Permits
General Permits authorize a specific kind of activity, such as placer mining. For example, if a project meets the requirements of the permit, individual placer mining projects do not need to be individually permitted. Typically, projects less than 5 acres are eligible to be permitted under a general permit.

Examples
- Placer Mining General Permit
- Small Suction Dredge General Permit
- Medium Suction Dredge General Permit

Individual Permits
Individual Permits authorize a specific project. These are typically for larger hardrock mining projects with unique environmental impacts.

Examples
- Usibelli Mine
- Pogo Mine
- Red Dog Mine
Public Process

General Permits
*General Permits* only undergo a public process every five years. There is no public process for a project permitted under a general permit, only for the activity.

Individual Permits
Every year, DEC publishes a list of permits that will be drafted in the next two years known as the Permit Issuance Plan (PIP). If you are interested in following a permit, please contact Gina Shirey, (907) 465-5272

- APDES Tribal Involvement in the Permitting Process Flowchart
- APDES Brochure for Tribes
- Permit Issuance Plan (PIP)

Reporting Violations

For any release of an immediately hazardous substance:
Please call (907) 451-2121 (Central and Western Alaska) or (907) 451-2121 (Northern and Interior) Alaska

To report a suspected violation of an APDES Permit:
First reach out to the DEC permit writer (found on permit)
If no permit writer listed contact Allan Nakanishi: (907) 269-4028
Otherwise report to the DEC Environmental Crimes Unit [here](#).

Helpful Links

- APDES Tribal Involvement in the Permitting Process Flowchart
- APDES Brochure for Tribes
- State of Alaska Water Quality Standards
- APDES Permit Search
Contact

Gina Shirey  
Local and Tribal Government Coordinator  
(907) 465-5272  
gina.shirey@alaska.gov

Allan Nakanishi  
Engineering/ Mining Technical Services Section Manager  
(907) 269-4028  
allan.nakanishi@alaska.gov
Fish Habitat Policy
Alaska Department of Fish and Game

Mining Permitting
For mining below the Ordinary High Water Mark, basically within the stream, in fish-bearing waters, ADFG requires a fish habitat permit.

General Permits
ADFG offers a general permit for small scale mining, that is with a suction dredge less than 6" or mining with a sluice box and material gathered by hand. These permits do not allow mining below the OHW. Additionally water intakes must be screened and cannot impact fish passage. To protect anadromous fish, these permits restrict when miners can operate. The time restrictions are listed by stream in the Authorized Stream Lists.

Individual Permits
For larger projects, such as mining projects that might require diversions, dams, fills, undercutting banks or bars, or withdrawing water, an individual permit must be obtained. This permit requires the implementation of best practices for anadromous water bodies.

Authorized Stream Lists
Fortymile River Area
Steese Highway
Dalton Highway
Reporting Violations

If you suspect that the conditions of a permit are being violated or have questions about permit conditions, please contact Audra Brase at (907) 459-7282.

Keep in mind, if you have water quality concerns, contact DEC. ADFG mostly focuses on habitat, such as stream beds, banks, etc.

Helpful Links

Fairbanks Habitat Permit Application
Best Practices
Sample Habitat Permit Application

Contacts

Alaska Department of Fish and Game
Division of Habitat
1300 College Road
Fairbanks, AK 99701-1551
(907) 459-7289
dfg.hab.info@alaska.gov

Audra Brase
Regional Supervisor-Fairbanks
audra.brase@alaska.gov
(907) 459-7282
Wetlands and Navigable Waters
US Army Corps of Engineers

Mining Permitting

The US Army Corps of Engineers is responsible for the governance of engineering projects that affect the Waters of the United States, typically defined as navigable streams and wetlands.

Clean Water Act
404 Permits:
Wetlands
When any project affects wetlands, either destroys or disrupts, USACE requires a permit describing the impact and mitigation measures. Typically, this consists of either restoration of the site after mining, or mitigation offsets by restoring other wetlands.

Rivers and Harbors
Act Section 10
Permits:
Navigable Waters
When a project might change the course of a navigable water body, such as a large river, the Corps requires a permit process.
Public Process

General permits, predominantly those used with placer mining, only undergo a public process every five years, and this occurs at both the national and regional level. The predominant general placer mining permit expires in 2019.

Additionally, since the Corps is a federal agency, a NEPA review might be necessary for individual permits. See the NEPA Process Document for more details.

Reporting Violations

If you suspect a violation of a USACE permit, please contact either district office either by email or phone.

In Anchorage at (907) 753-2712 or in Fairbanks at (907) 474-2166

Helpful Links

USACE Alaska Public Notices
Alaska NEPA Process
Alaska Regional General Permits

USACE Issued Permits
USACE Pending Permits
Contacts

Anchorage District Office
907-753-2712
800-478-2712
regpagemaster@usace.army.mil

Fairbanks Regulatory Field Office
907-474-2166
Email:
regpagemaster@usace.army.mil

Leslie Tose
Project Manager-Regulatory Division
(907) 753-5515
leslie.w.tose@usace.army.mil
Federal Land
Bureau of Land Management

Mining Permitting

The BLM regulates mining on federal land. The BLM’s regulations differ based on three classifications of minerals made in the law. The BLM manages property rights primarily and does not mitigate the impacts of mining as a regulator.

Locatable Minerals
Locatable Minerals are minerals for which people can stake claims on federal land. These minerals are defined by the BLM as those that are recognized by experts as precious minerals, are not disposable, and make the land more valuable than using it for agriculture. These are divided into placer and lode claims. A lode claim is a clearly defined vein of a mineral. A placer claim is for precious mineral that is distributed through another (such as gold in a streambed).

Salable Minerals
Saleable Minerals are minerals that one can purchase a quantity from the BLM, and then mine such a quantity. These are typically minerals that are relatively cheap by volume and easy to extract, such as sand and gravel.

Leasable Minerals
Leasable Minerals are minerals, such as oil, gas, phosphate, sodium, potassium, sulphur, and gilsonite, that the federal government leases (no claims). The miner pays the federal government for the right to mine in that area.

Reclamation
For mining on federal land, miners are required to enter a bond pool for reclamation. If miners violate their permits, the BIA can order a suspension of mining operations. Another important note is that suction dredging is not authorized on BLM land without prior authorization.
Land Use Planning

The BLM also makes long term decisions about which lands are open to mining and how to balance it with the many uses that federal land supports. The BLM makes these decisions in long-term (10-20 years) land use planning processes. See our public comment resources with tips on how to be an effective participant. There are two plans currently being considered:

Central Yukon RMP
Bering Sea- Western Interior RMP

Public Process

There is no public process for most claim-staking. For a larger mining project on federal land, the BLM might need to complete an EA or EIS under NEPA.

Land Use Planning includes a public process, details are above.

Helpful Links

BLM Alaska Planning
Federal Mining Claims handbook
Alaska Mining Claim Handbook
Contact

Anchorage State Office Mining Contact
(For big picture policy questions, for questions about local mining concerns, contact one of the field offices)

Joe Galluzzi
(907) 271-3236

Anchorage Field Office
James Whitlock
(907) 267-1284

Eastern Interior Field Office
Sharon Tingue
(907) 474-2344

Central Yukon Field Office
Tim Hammond
(907) 474-2210
State Land
Alaska Department of Natural Resources

Mining Permitting
DNR has four major roles in the permitting process for mining in Alaska. First, it manages claims on state land. Second, it coordinates mining permits and applications. Third, it manages water rights. Additionally, long-term DNR can decide about whether to open or close its lands to mining and how they should be used through a land planning process.

Mining Claims
The state allows private citizens and corporations to lay claim to subsurface locatable minerals on state land. For info on claims on state land, call the Public Lands Information Office.

Land Use Planning
In the Land Use Planning process, DNR makes decisions about how to use state land, which can include opening and closing lands to mining as well as accommodating subsistence use.

Water Rights
DNR manages water rights. If a “significant amount of water” is planning to be diverted as part of a mining development, it may require a public process.

Coordination
The state coordinates the application process for mining permitting. Due to the number of permits required for mining in Alaska, the State of Alaska has a central application for mining called the Application for Permits to Mine in Alaska (APMA). It distributes this application to other agencies which acts as the application for other permits. For large hardrock mines, DNR manages the Large Mining Permitting Team (LMPT) to guide large mines through the permitting process. All miners must complete this process regardless of where they are mining. In this process, miners enter into a reclamation bond pool.
Public Process
State land claims and the mining coordination process do not undergo a public process at DNR, though the permits that DNR coordinates with other agencies (DEC, etc.) might have public processes.

If a mine needs to divert a notable amount of water, it may require a public process.

The Land Use Planning Process includes a public comment process. Each plan has its own website where you can comment. Plans in Progress can be found here.

Reporting Violations
If you suspect an illegal diversion of water, please contact DNR’s water division with David Schade at 907-269-8645.

Helpful Links
APMA Application
LMPT Information
Water Rights Handbook
DNR Mining Fact Sheets
Make Your Comments Count!

Contact
Alaska Public Lands Information Center
Anchorage: (907) 269-8400
Fairbanks: (907) 451-2705
Industry Engagement

Introduction

When a mining operation begins, one of the best ways to understand how the mining operation might affect your community is to reach out to the operators directly. In fact, it’s in the mining operator’s interest to work with you! Below are some tips on the best way to as well as some thoughts about how to have a successful relationship with a mining operation.

If you are unsure about who is operating, the best thing to do is to reach out to the appropriate land manager and see who might have a claim. If it’s on either a Native Regional or Village Corporation Land, please reach out to the appropriate corporation. If the claim is on federal land, you can reach out to the appropriate BLM field office manager. If the claim is on state land, you can reach out to DNR. If the claim is on private land, you may need to contact your local government to find the land owner. Information might also be listed on the permits if the operation has already begun.

Operators

Large Operators

Due to the high levels of financial risk present in a large mining project, there is a bigger incentive for larger corporations to engage early and often with tribes. Larger Entities have the technical capacity and the incentive to understand regulations.

Small Operators

Smaller operators might be less familiar with mining regulations, so it’s best to understand the mining regulations. Smaller operators might also be less willing to engage because they do not understand tribal consultation or are unwilling to do. The best things to do are to be friendly and polite. If you have concerns and the operators are unwilling to talk directly, it is best to reach out to the governmental regulator or land manager for the appropriate concern.
Potential Requests

Outside of the regulatory process, some potential requests or questions when interacting with either individual corporations or small operators are:

- Designating a point of contact on both ends to ask questions through the process
- Regular updates on the mining progress (What does the prospect look like? Is it likely a mine will start up soon? What’s the timeline?)
- Requesting the water quality monitoring information the mine is collecting as part of its permitting operation
- Potential accommodations for subsistence (Can they halt operations for a specific part of the season to accommodate subsistence use? Are there some best management practices to avoid affecting a subsistence resource in the area? Are they even aware of potential use conflicts?)
- Request a meeting with the Tribal Council
- Request local hire when possible
- Request local contracting when possible

Impact-Benefit

Impact-Benefit agreements are agreements between a local community and a mining operator to provide certain benefits to the affected community to mitigate the adverse effects of mining. See Red Dog Mine Case Study for more details.

Industry Orgs

Alaska Mining Association
The Alaska Mining Association is the primary group representing the mining industry in Alaska. They might be a helpful organization to facilitate broader policy discussions with the mining industry.

Alaska Miners Association
(907) 563-9229
ama@alaskaminers.org
The National Environmental Policy Act (NEPA) is a federal law enacted in 1970. Essentially, NEPA asks the federal government to consider the environmental impact of its activities. In relation to mining, NEPA typically means that the federal government has to assess what the impact of giving permits to a large mine, or to a type of mining activity.

**Environmental Assessment**
An Environmental Assessment (EA) is essentially a determination of whether or not an Environmental Impact Statement (EIS) is required for a project. If after the assessment an EIS is needed, the Corps will proceed with EIS. If not, it will issue a Finding of No Significant Impact (FONSI), where it explains why the proposed federal activity won’t have a major impact. If you think a project is important enough to merit a more rigorous assessment, it’s important to be engaged.

**Environmental Impact Statement**
An Environmental Impact Statement (EIS) is a larger consideration of the impacts of a federal action (granting a permit, approving a project, changing regulations, etc.). In an Environmental Impact Statement, the federal government scopes the project to initially understand the impacts. Following the scoping, the federal government will post a Draft Environmental Impact Statement. These are long technical documents, and might require hiring an environmental consultant to fully understand the impacts and to effectively recommend best practices and alternatives.
Relevant Agencies

Since permits are required from a variety of agencies, BLM, USACE, etc. one agency leads the permitting process. In Alaska, typically, the Army Corps of Engineers is responsible for leading the NEPA process in Alaska. However, other agencies weigh in, and the state of Alaska will often coordinate its permits with the NEPA process.

Public Process

Since permits are required from a variety of agencies, BLM, USACE, etc. one agency leads the permitting process. In Alaska, typically, the Army Corps of Engineers is responsible for leading the NEPA process in Alaska. However, other agencies weigh in, and the state of Alaska will often coordinate its permits with the NEPA process.

Contacts

Each mining project has its own EIS team. To find out more information about a particular project’s contact, check out the following website:

Public Notices Section

Environmental Impact Statements
Reclamation is the process of restoring mining sites to points where they are economically useable again, no longer pose a danger to public safety, and/or no longer pose a danger to the environment. Prior to environmental laws passed in the late 1970s, mining reclamation was rarely guaranteed. Thus, there are different mechanisms of reclamation pre and post-1977.

**Pre-1977 Mining**
Prior to the 1977 passage of the Surface Mining and Reclamation Act, there were limited requirements for reclamation to be included in mining plans and permitting. This act established a fund to reclaim abandoned historical mine sites as well as all coal mines (regardless of time). This act is executed through the State Department of Natural Resources (DNR). DNR manages an Abandoned Mine Lands program whereby it uses funds from a tax on coal mining to reclaim historical mining operations. Project priorities for DNR are based on funding available (it does not have the money to restore every mine site) and the urgency of reclamation based on three-tiered priority structure.

**Post-1977 Mining**
Almost all mines are required to post a reclamation bond. A reclamation bond essentially means that a corporation is promising to reclaim the land. It guarantees this promise by putting up resources equal to the monetary cost of reclaiming the mine. If it fails to reclaim the mine, those resources can be claimed in order to reclaim the mine. DNR requires the posting of reclamation bonds and reclamation planning for mining projects in state.
Helpful Links

DNR Abandoned Mine Lands Program (AML)
DNR Reclamation Planning Document
BLM Mining Reclamation Bonding Guide Document

Contacts

DNR Anchorage Office Mine Permitting & Mineral Property Mgmt
550 West 7th Avenue, Suite 900B
Anchorage, AK 99501
(907) 269-8642

DNR Fairbanks Office Mine Permitting
3700 Airport Way
Fairbanks, AK 99709
(907) 458-6896

DNR Surface Mining
550 West 7th Ave, Suite 900D
Anchorage, Alaska 99501
(907) 269-8503
Transboundary Agreements

Yukon River Panel

The United States and Canada are both party to a treaty known as the Pacific Salmon Treaty. This treaty protects salmon across international borders. To implement this treaty, the Yukon River Salmon Agreement established the Yukon River Panel as an independent body. The Yukon River Panel has a twelve member board, made up of six representatives of each nation, that meet biannually to offer recommendations on management pre- and post-season. The Yukon River Panel also makes available some money for restoration and reclamation.

SOA Working Group

For Southeast Alaska, the State of Alaska recently established a transboundary working group to assess the potential threat of British Columbia mines on Southeast Alaska and to provide a mechanism of communication. This type of working group, or utilizing existing transboundary groups, such as the Yukon River Panel, might be an effective method of engagement on mining specifically. Effective transboundary engagement requires engagement from federal, state, and indigenous stakeholders on both sides of the border. Currently, the Lieutenant Governor’s Office is taking a lead role in this engagement.

Helpful Links

Yukon River Panel Website
Yukon River Panel RFPs
State of Alaska Transboundary Mines Working Group
Transboundary White Paper
4. Case Studies
Red Dog Impact
Benefits Agreement

Site + Introduction

Red Dog Mine in Northwestern Alaska is an example of a mine that has developed an Impact Benefits Agreement (IBA). An IBA is a contract that discloses the impacts of a mining project and creates a commitment for a developer and a local community to share in the benefits. Red Dog Mine, located on NANA land and operated and leased by Teck Resources, developed an agreement with NANA to share in the benefits of the zinc mine.

Agreement

Concept

Local Hire Provisions: When a mining operation agrees to employ a portion of its employees from adjacent communities.

Educational Agreements: Offers for scholarships for local students to get training to work at a mine or pursue alternative educational opportunities.

Subcontracting Agreement: An agreement to use certain companies, typically of local communities, in providing services for the mine.

Payment-in-lieu-of-tax (PILT): An agreement to pay a local government in exchange for a tax exemption.

Example

NANA Shareholders make up 55% of employees at Nana

NANA Shareholders are eligible for scholarships for school for as many years as they commit to work for Red Dog

NANA Management Services is the subcontractor for catering services for the mine

Red Dog Mine pays the Northwest Arctic Borough $18-$26 million a year in lieu of property taxes
Impact-Benefits Agreements are not a panacea to potential risks of mining nor should they replace rigorous environmental and social engagement.

Because Red Dog Mine was on Native Corporation land, there was a stronger incentive for Teck to engage in an IBA. IBAs can be created for any project, but it’s important to keep in mind available leverage.

Helpful Links

ISER Red Dog Working Paper
The Rivers of Gold mining operation proposed a coastal mining project at the Solomon entrance to the Bonanza River near Nome. The proposed operation submitted the Application to Mine in Alaska (APMA) application. The area has both recovering fish and bird populations. The Northern Norton Sound Fish and Game Advisory Committee and, under a press release signed to all three, the Norton Sound Economic Development Corporation, Kawerak, and the Bering Straits Native Corporation, released statements against the operation. After receiving the letters, federal and state agencies agreed the project would need an individual permit, rather than the general permit it applied for.

Northern Norton Sound Fish and Game Advisory Committee Letter

Comment
"Safety Sound and Bonanza Channel support a great deal of human use in the form of subsistence gathering from mid-July until the ice is a foot thick. The seasonal round starts with salmon fishing in July, August and early September. Bird harvesting occurs in almost the same timeframe. Cod fishing occurs primarily September and October. Seal harvesting utilizes those same dates. One should not forget berry harvesting which primarily occurs during August. The seasonal camps at Solomon, Bonanza Channel and Nook (Safety Sound Entrance) number well over 100."

Analysis
This letter is particularly effective as it shows documentation of the ecosystem, and documentation of human use. By discussing the migratory windows the letter shows that there is a clear conflict between mining and human use. Documentation of time, place, and number of users helps agencies to understand the scale of an impact.
Kawerak, NSEDC, BSNC Press Release

Comment
“NSEDC, along with the Native Village of White Mountain, with funding from the Alaska Department of Fish and Game (ADF&G), have worked since 2005 to rehabilitate chum, coho and Chinook salmon runs in the areas proposed for mining. The rehabilitation efforts consist of collecting and fertilizing eggs from adult salmon, incubating eggs to the eyed egg or fry stages, and ultimately releasing them in areas previously mined. The long-term goal is these juvenile salmon will imprint on currently under-utilized habitats and return as adults to spawn, thereby rehabilitating areas previously disrupted by placer mining.”

Analysis
This letter is particularly effective as it shows documentation of the ecosystem, and documentation of human use. By discussing the migratory windows the letter shows that there is a clear conflict between mining and human use. Documentation of time, place, and number of users helps agencies to understand the scale of an impact.

Helpful Links

Kawerak, NSEDC, BSNC Press Release

Northern Norton Sound Fish and Game Advisory Committee Letter

KNOM: ‘Rivers of Gold’ Proposes Offshore Gold Mining Project for Solomon Area; Permit Process in Early Stages

KNOM: Environmental Concerns Are Cited in Opposition to Mining Projects Like ‘Rivers of Gold’
Public Comment Tips

**Comment Tips**

**Identifying local knowledge**
Due to the vast expanse of Alaska’s landscape, land managers don’t always know all the uses of all the land. Land managers have a responsibility to balance uses on land, both subsistence and extractive.

Agencies can’t always keep sensitive information private, so please contact the appropriate person before commenting on information you’d like to keep private.

In particular, good questions to answer in a comment are:
1. Where does human use occur? (can identify verbally, or by coordinates)
2. What human use is it? (hunting, fishing, ceremony, etc.)
3. How many people participate in the use?
4. When does the use take place?

**Documenting Use and making data available**
Following up on the previous Tip, documenting uses can be particularly helpful. Additionally, identifying academic studies can be helpful.

**Examples**

“Moose hunting takes place in the area of the proposed mine from August to September. Typically 15 members of the village take part. Please limit mining activities in this period.”

“This is a salmon-spawning stream, discharges in early July could affect spawning.”

“Recently, our environmental department commissioned a study that showed greater biodiversity of fish populations than what was previously identified in this region.”

“Some studies note that that fish intake can be higher than the state of Alaska’s base value in its water quality standards.”
Identifying Alternatives
Identifying best management alternatives for permits can be helpful.

“A retention pool might be necessary due to high runoff in this area.”

Identifying Errors
While errors are rare, they are important to catch. Typically, catching errors might require the eye of a skilled environmental professional. However, if you see something that looks wrong, there’s no reason not to reach out.

“There is no temperature discharge limit listed in the permit.”
5.
Glossary
**Army Corps of Engineers**: The federal agency responsible for managing engineering projects in federal waters (see: Waters of the United States)

**Categorical Exclusion**: A type of federal action that has been determined to have no significant impact on the environment and is excluded from NEPA requirements

**Clean Water Act**: The national law that regulates the discharge of pollutants into the water

**Clean Water Act, Section 402**: Regulation of Point Source Pollution

**Clean Water Act, Section 404**: Regulation of dredged and fill material

**Environmental Assessment (EA)**: An initial assessment to determine if a full Environmental Assessment is necessary

**Environmental Impact Statement (EIS)**: A report and decision regarding a federal action that may affect the environment. In the report, the government determines the environmental impacts of a proposed decision and lays out steps to mitigate the impacts

**Exploration**: The phase of mining whereby operators evaluate how much value a claim has and the cost of extracting the mineral. Typically, the environmental impacts of this stage are minimal.

**General Permit**: A general permit is typically a permit for which an agency has decided that rather than develop a unique set of permitting conditions for each mining operation, that many types of mining have similar impacts and can generally be governed by the same permit conditions. For example, most agencies have general permits for placer mining, rather than developing unique permits for each placer mine. This typically means that the opportunity for public comment occurs when the type of mining is permitted rather than a specific operator. This is different than an Individual Permit.

**Hard Rock Mining**: Typically, hard rock mining involves the removal of many layers of soil and rock above the mineral deposits to access them. This creates the image of multiple layers of an open-pit mine.

**Individual Permit**: An individual permit is a permit developed for a specific mining operation. Individual permits are typically required for large mining projects that require unique conditions, and do not fit the categories of any general permits. These permits typically go through a public process to identify. For example, large mines such as Donlin have to complete individual permits.

**National Environmental Policy Act (NEPA)**: An environmental law requiring the government to consider the environmental impact of its decisions

**Navigable Water**: Water that can be used for boat travel
**NEPA Preferred Alternative:** An alternative to the proposed action in an EIS

**Non-Point Source Pollution:** Pollution entering from a broad source, such as runoff over an agricultural area

**Placer Mining:** Placer mining is one of the most common forms of mining in the state of Alaska. Placer mining consists of the removal of some sorts of sediment or rock, then crushing the sediment or rock.

**Rivers and Harbors Act, Section 10:** An act requiring the approval of USACE of any changes to navigable waters of the United States

**Turbidity:** A measurement of the suspended sediment in the water, typically cloudier water is more turbid

**Waters of the United States:** Waters the federal government regulates. This includes navigable waters, and the waters that flow into them, as well as wetlands and coastal areas.

**Water Right:** A right to use or divert a certain amount of water
Acknowledgements

Thanks to:
Lannan Foundation
Bob Loeffler
Allan Nakanishi
Gina Shirey
Tim Hammond
Audra Brase