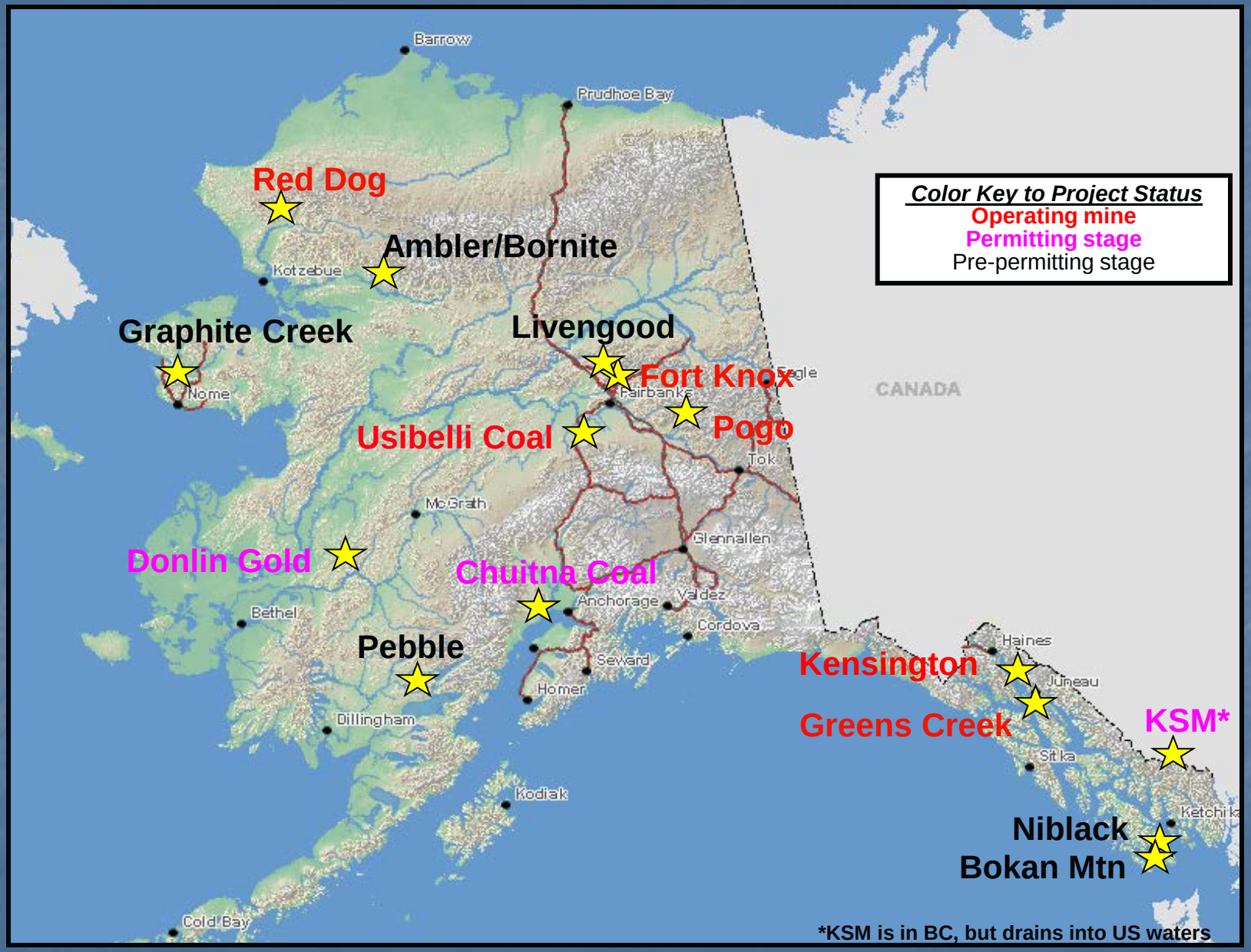
An Overview

The Process for Large Mine Permitting in Alaska

State of Alaska
Department of Natural Resources
Office of Project Management and Permitting
July, 2014

Large Mining Projects in Alaska



Presentation Outline

- Description of the Permitting Process
- Mining 101 – basics of mining
- Description of Major Mine Permits
- Description of Permitting Agencies

Key Concepts

1) Permitting process doesn't guarantee a "Yes"
2) Mining 101 – rock chemistry drives water quality and mine design
3) Many permits from many agencies are required
4) Financial assurance ($) is required
5) We have experienced, dedicated regulators
6) Interagency monitoring & inspection continue through operation and closure

The Permitting Process!

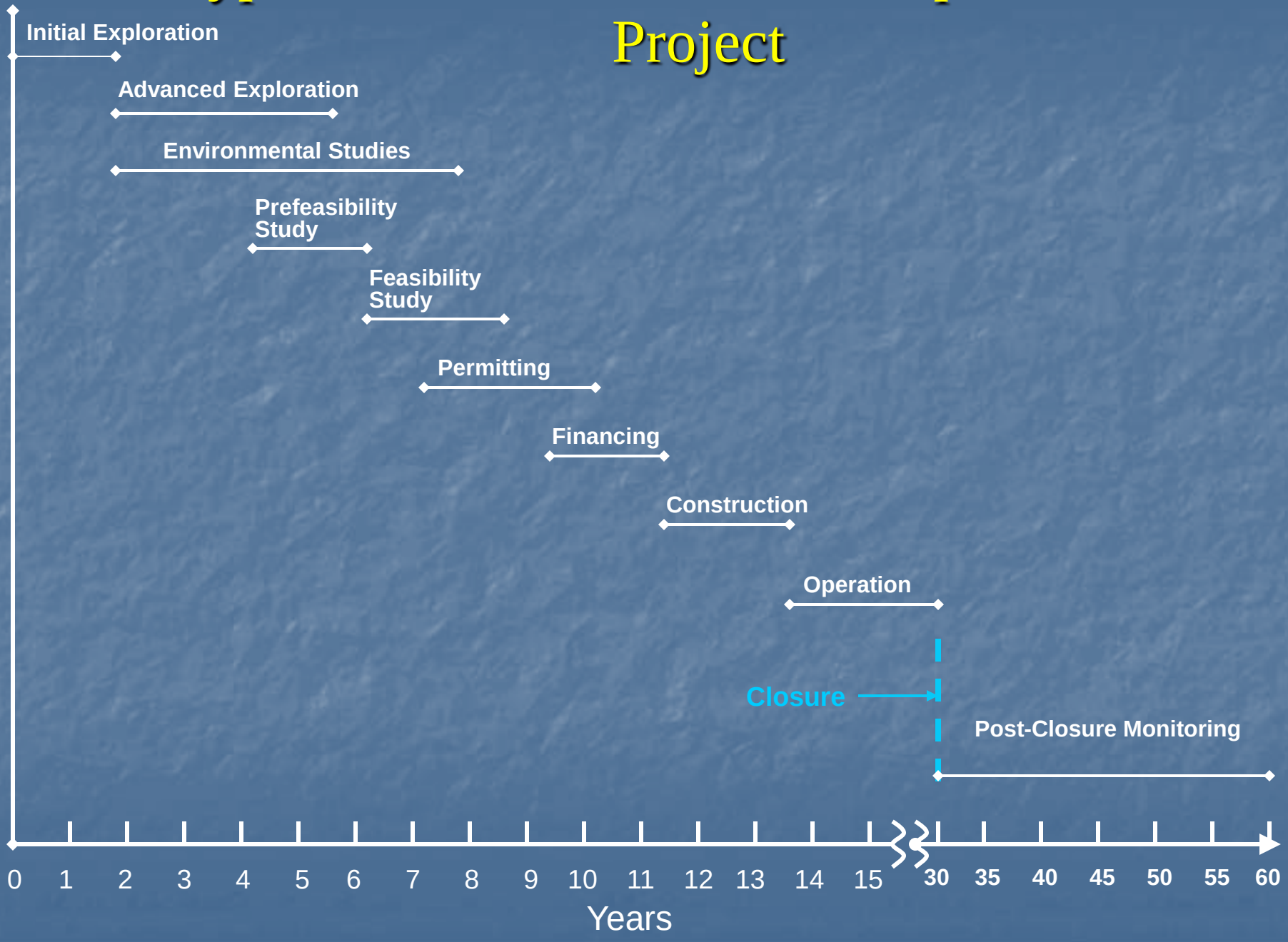
Mineral Rights on State Land

- State land use plans determine allowable land uses, and if land is open or closed to staking (legislative approval needed for more than 640 acres). If there is no land use plan, default is usually open to staking.
- Most state land is open to mining
- Rights established for most minerals by discovery and appropriation (staking claims) under Alaska Constitution, Article VIII, section 11)
- State and Federal (BLM and most Forest Service) Land – established through staking claims (hard rock minerals)
- ANCSA and Private Land – open with agreements with landowner

Major Steps in Mineral Development Process

- Prospecting - Geological data and map reviews, non-invasive exploration
- Staking - Establish Mineral Rights
- Exploration (includes drilling, geophysics, bulk sampling)
- Detailed Resource Delineation and Economic Feasibility
- Development Plan and permitting process (focus of this presentation)
- Mine Development (Construction)
- Mine Operation
- Shutdown (Closure) and Reclamation
- Long-term monitoring

Typical Time Frame for a Completed Mine Project



No Single Permit to Mine: there are many permits & authorizations

STATE

- Plan of Operations Approval (DNR)
- Reclamation and Bonding (DNR)
- Waste Management Permits and Bonding (ADEC)
- Water Discharge Permit (APDES)
- Certification of ACOE Permits (ADEC)
- Sewage Treatment System Approval (ADEC)
- Air Quality Permits (ADEC)
- Fish Habitat and Fishway Permits (ADFG)
- Water Rights (DNR)
- Right of Way/Access (DNR/DOT)
- Tidelands Leases (DNR)
- Dam Safety Certification (DNR)
- Cultural Resource Protection (DNR)
- Monitoring Plan (Surface/Groundwater/Wildlife) (DNR/DEC)

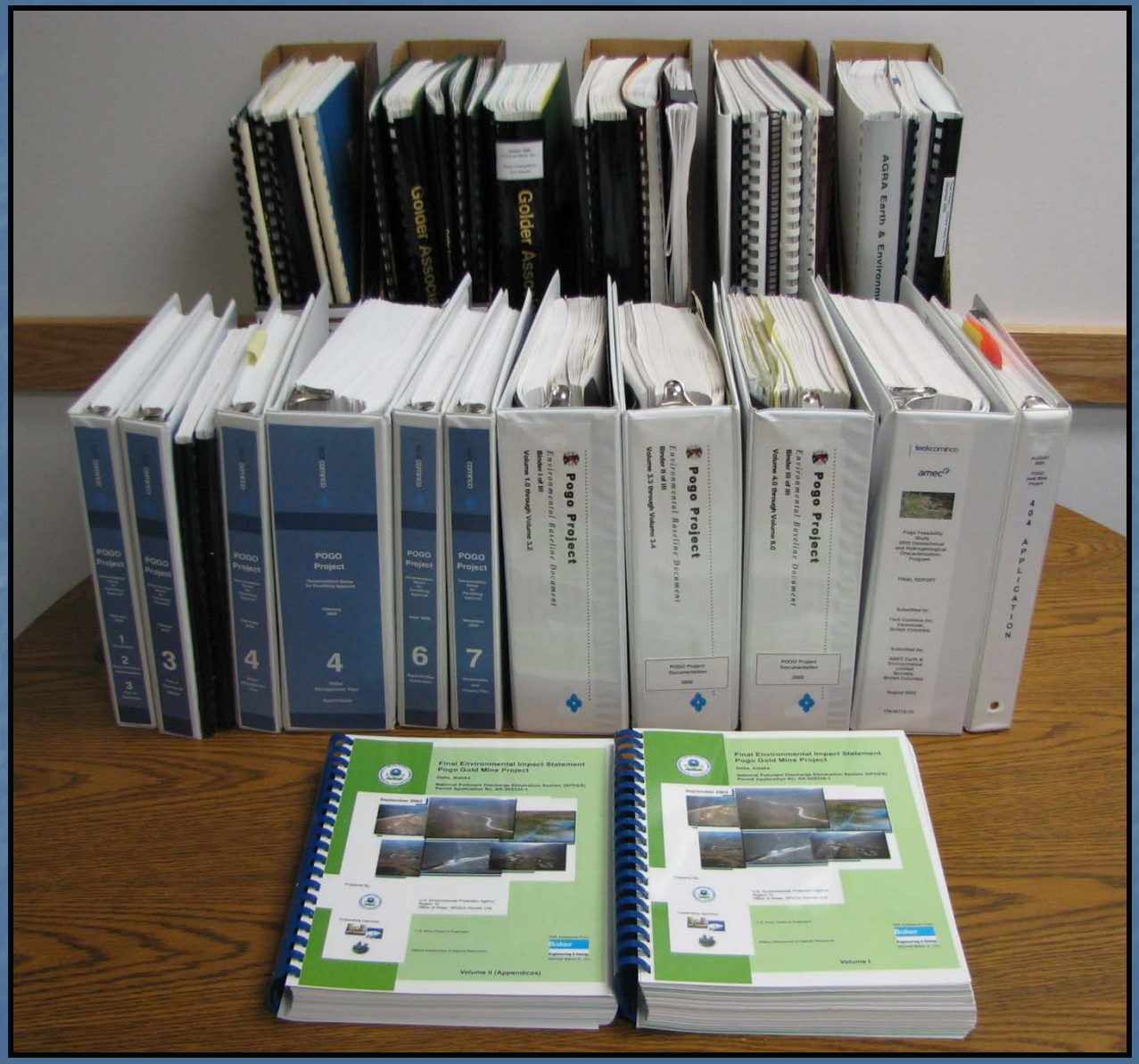
FEDERAL

- US EPA Air Quality Permit review
- US EPA Safe Drinking Water Act (UIC Permit)
- US ACOE Section 404 Dredge and Fill Permit
- US ACOE Section 10 Rivers and Harbors Act
- US ACOE Section 106 Historical and Cultural Resources Protection
- NMFS Threatened and Endangered Species Act Consultation
- NMFS Marine Mammal Protection Act
- NMFS Essential Fish Habitat
- NMFS Fish and Wildlife Coordination Act
- USFWS Threatened and Endangered Species Act Consultation
- USFWS Bald Eagle Protection Act Clearance
- USFWS Migratory Bird Protection
- USFWS Fish and Wildlife Coordination Act

(These are only some of the authorizations required)

And many agencies

- Department of Natural Resources
- Department of Environmental Conservation
- Department of Fish and Game
- Department of Transportation & Public Facilities
- Department of Commerce, Community and Economic Development
- Department of Law
- US Environmental Protection Agency
- US Army Corps of Engineers
- US Fish and Wildlife Service
- National Marine Fisheries Service
- Bureau of Land Management
- U. S. Forest Service
- National Park Service



The permit application package is comprehensive!

Example:

Pogo Gold Mine Permitting Documents and Environmental Impact Statement

National Environmental Policy Act (NEPA) Process

What is NEPA?

- National Environmental Policy Act
- Major federal actions trigger NEPA (EPA, Corps, BLM, USFS)
- Requires an Environmental Assessment (EA)
- Could require an Environmental Impact Statement (EIS)
- Timeline for NEPA is usually longest part of mine permitting process

An EIS is

- A disclosure document prepared so agencies making decisions on a project are fully informed.

An EIS is NOT

- A decision document

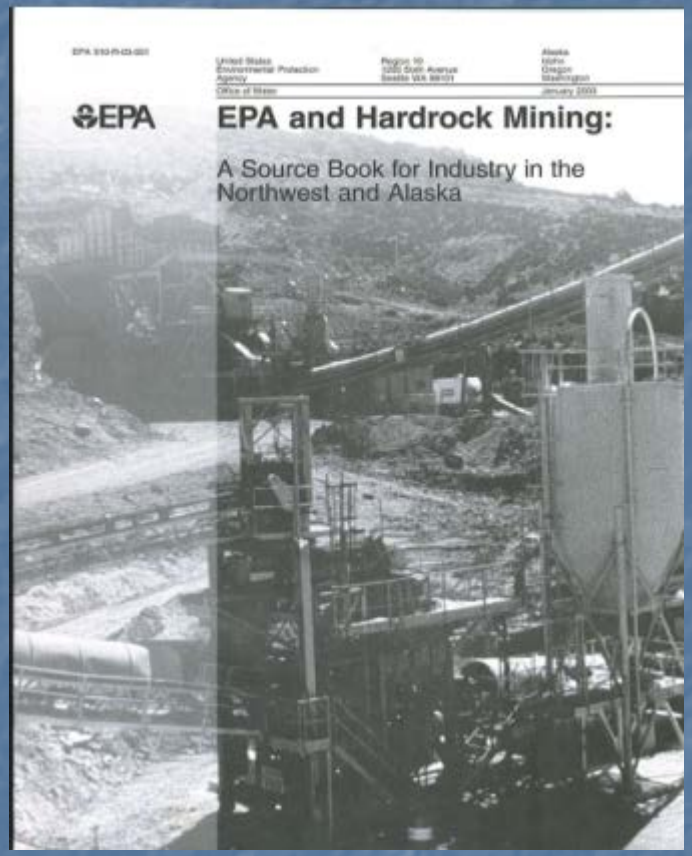
NEPA Process Steps

- Application (i.e. for a CWA Section 404 permit, or USFS Plan of Operations Approval)
- Scoping (identify significant issues, scope of EIS)
- Draft EIS Review
- Comments
- Final EIS
- Record of Decision (ROD)

Record of Decision

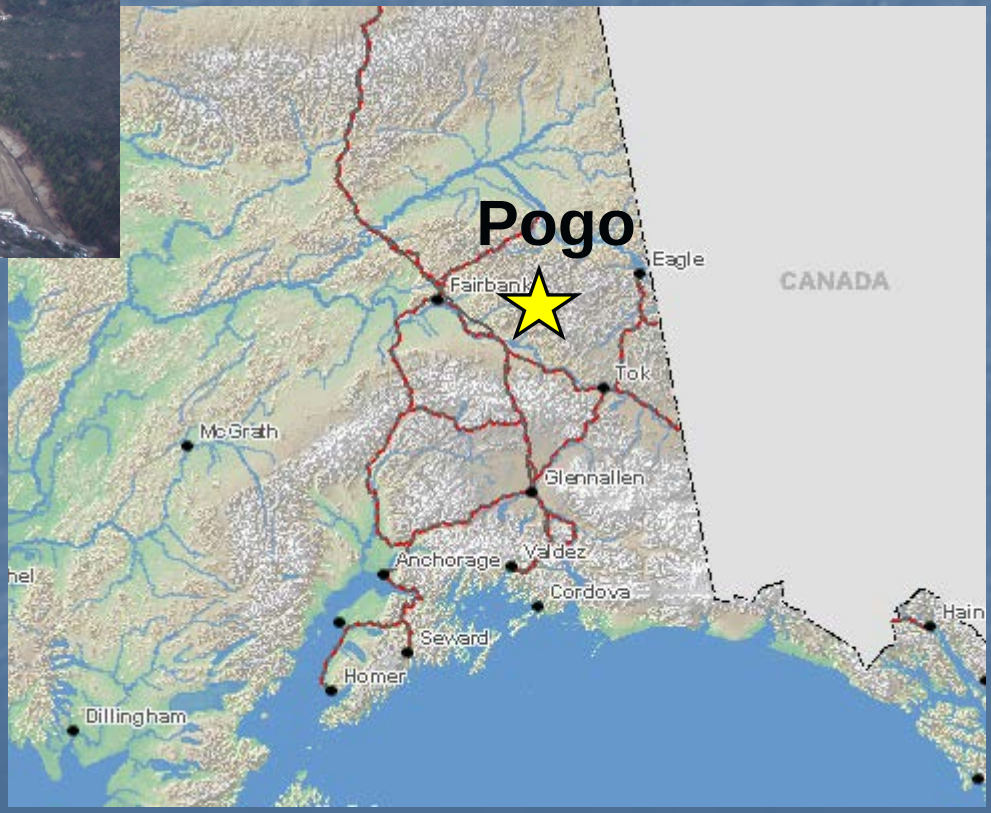
- A federal agency's permitting decision is based on the information presented in the EIS. Their decision is formalized when they publish their Record of Decision (ROD) in the federal register.
- The ROD is not a permit. Permit issuance follows the ROD and may incorporate certain language from the ROD as permit stipulations.

Good Source for NEPA Information



Permitting Example: Pogo Mine

Underground Gold Mine near Delta Junction



Pogo Mine Permitting Chronology

- Agency Discussions and Baseline Studies Initiated in 1997
- EIS Initiated in August 2000
- Public input on Scoping 2000/2001
- Public Review of Draft EIS and Public Meetings, Spring 2003
- Final EIS Completed in October 2003
- State Permits Issued in December 2003

Baseline Studies

- Surface Water Quality & Quantity
- Groundwater Quality & Quantity
- Subsistence
- Aquatic Life
- Wildlife
- Wetlands
- Socioeconomics
- Cultural Resources
- Meteorology
- Traditional Ecological Knowledge (TEK)
- Visual Resources
- Noise
- Air Quality

Coordinated State/Federal Process

- Draft State Permits may be included in Draft EIS for Public Review
- Public involvements (meetings, notices, etc.) are synchronized - not “streamlined”
- Public Comment Opportunities on State permits are preserved

Pogo Public Participation

- Pre-Application meetings and outreach (community groups, Native groups, NGOs)
- Environmental Impact Statement Process
  - Scoping (meetings, public notice)
  - Draft EIS (meetings, public notice)
  - Final EIS (public notice)
- Tribal Consultation with 12 Tribes (Government to Government)
- Public comments accepted on all State authorizations
- Open Communication (website, meetings, newsletters, etc.)

Do we ever say “No” ?

ANSWER: We say NO many times

- There are numerous permits, each requiring YES/NO decisions
- A NO typically results in design changes to the project, and resubmittal of supporting documents
- The final approved project rarely looks like what was initially proposed – agencies require numerous changes to get to YES decision and permit approvals
- Sometimes applicants abandon a project before they get rejected
- Frequently project owners abandon project before they submit development permits – economics or technical challenges make project unfeasible or marginally feasible. Very few exploration projects ever become mine.

Mining 101

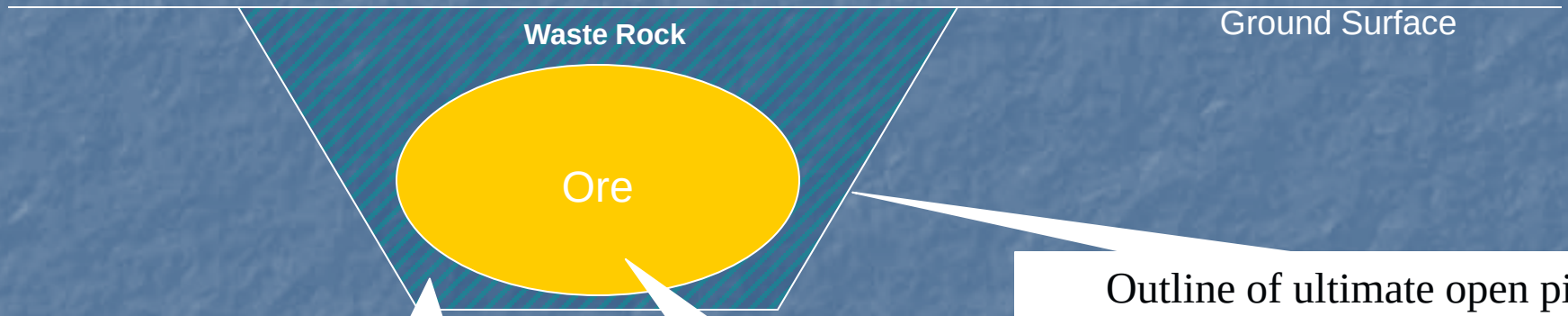
(a brief overview of mining practices and terminology)

Types of Mining

Ore and Waste

A generalized example, based on the Fort Knox Mine

Ore and Waste



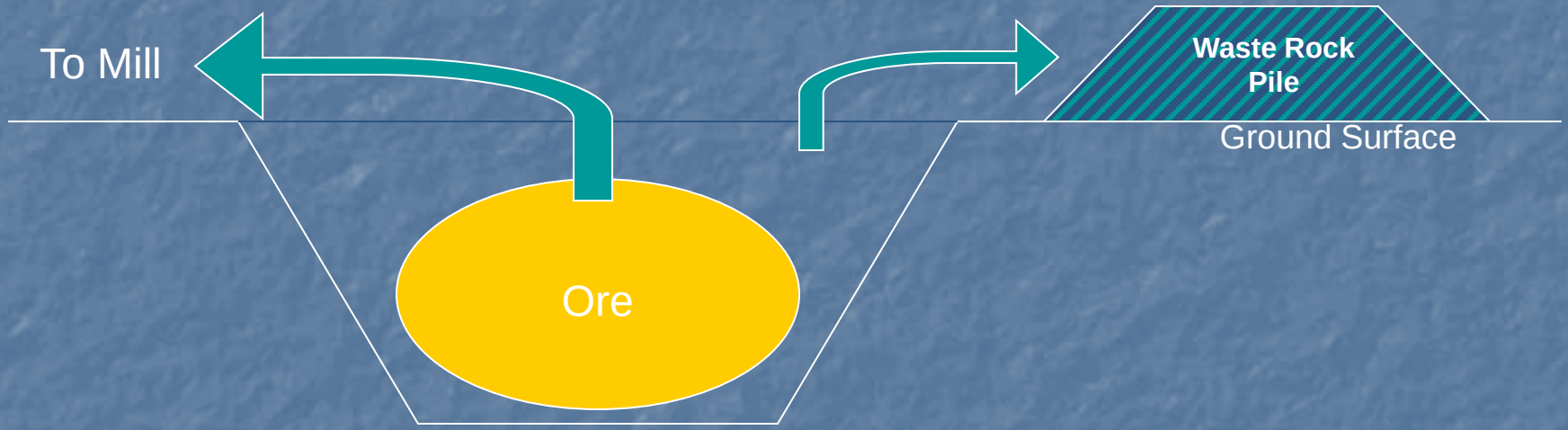
Outline of ultimate open pit

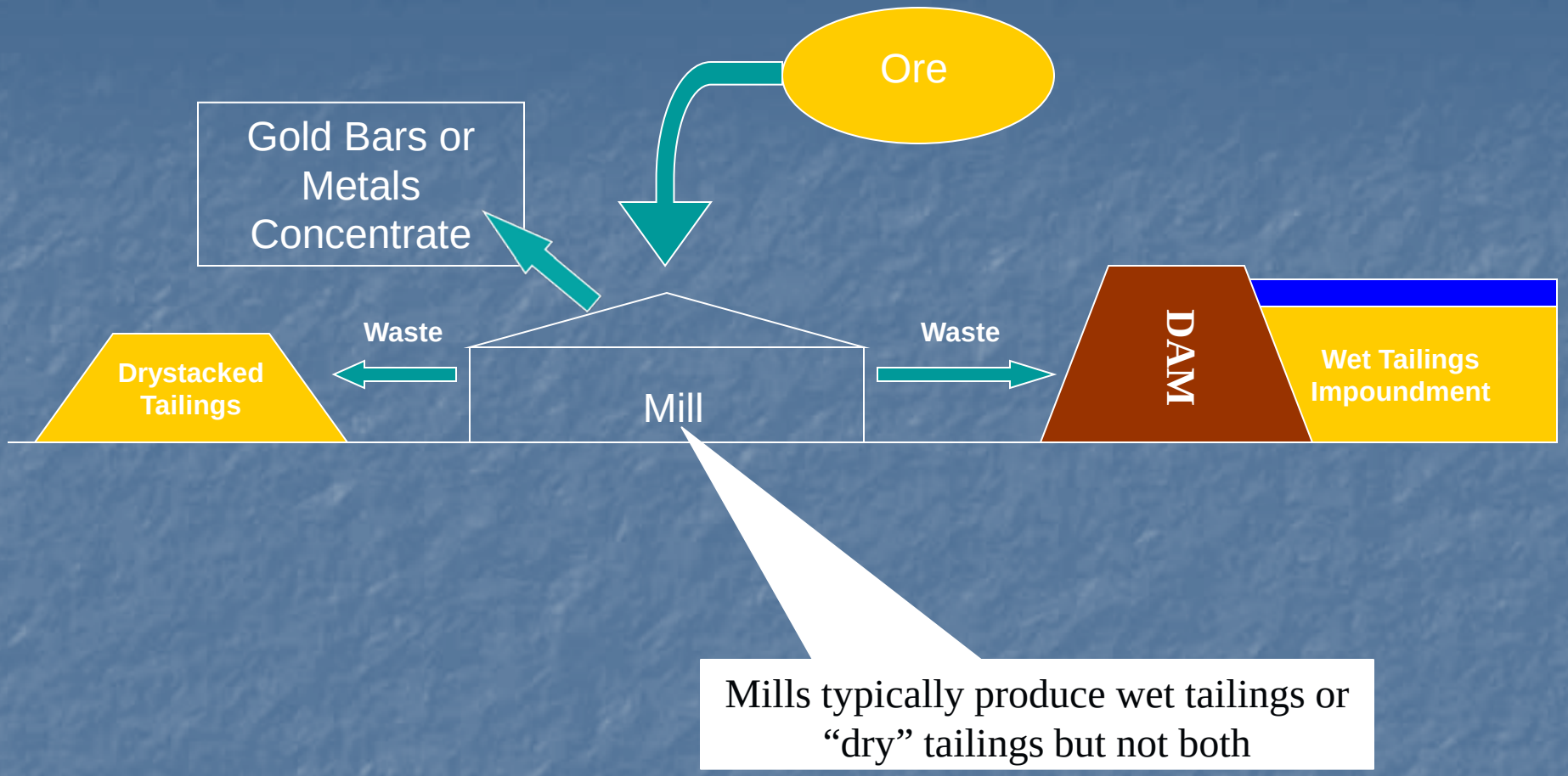
Waste is rock that has to be removed in order to mine the ore

Ore is defined as mineralized rock that can be mined and milled profitably

Ore and Waste

where they go

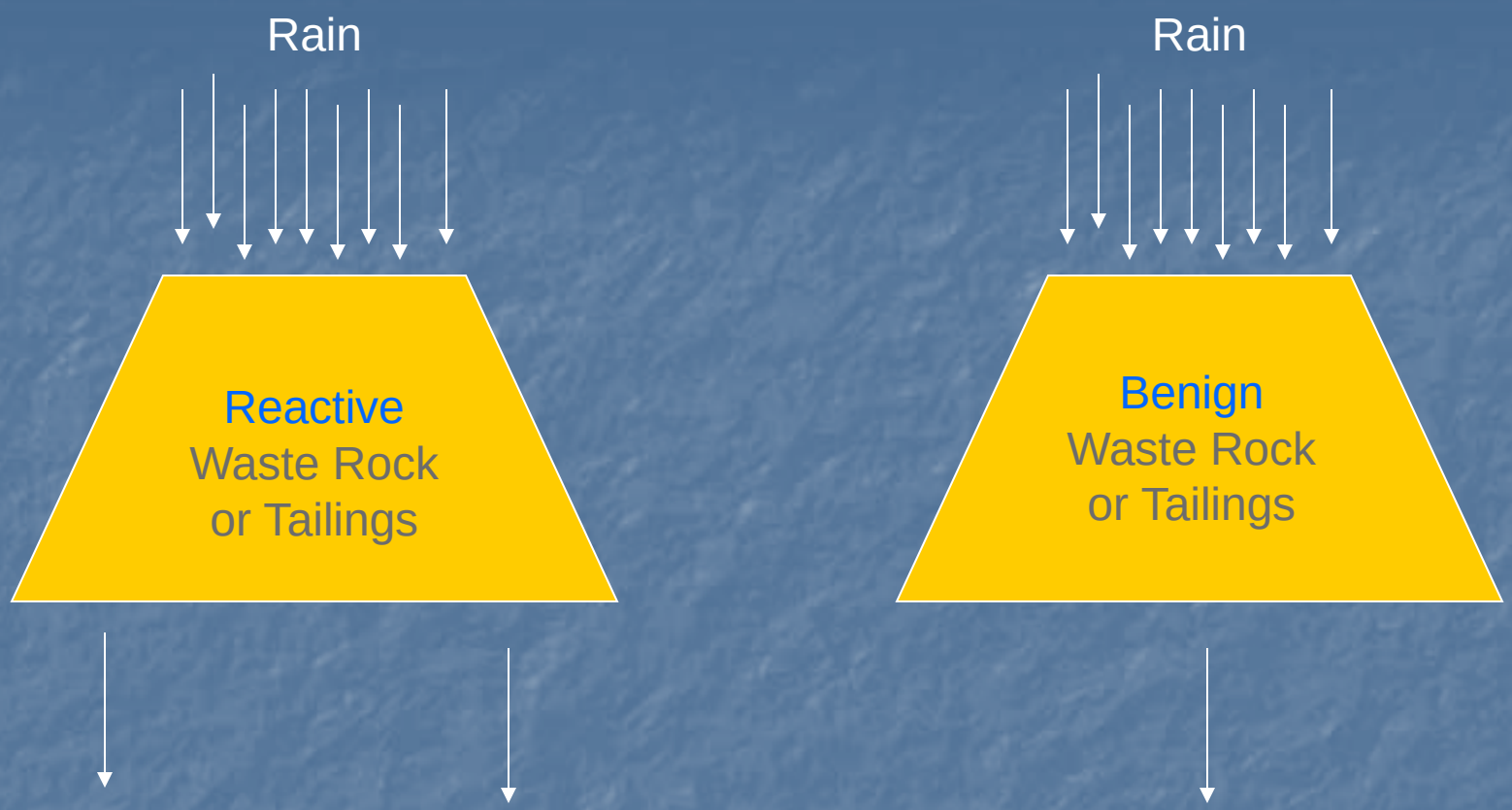



Ore
Gold Bars or Metals Concentrate
Waste
Waste
Drystacked Tailings
Mill
DAM
Wet Tailings Impoundment
Mills typically produce wet tailings or "dry" tailings but not both

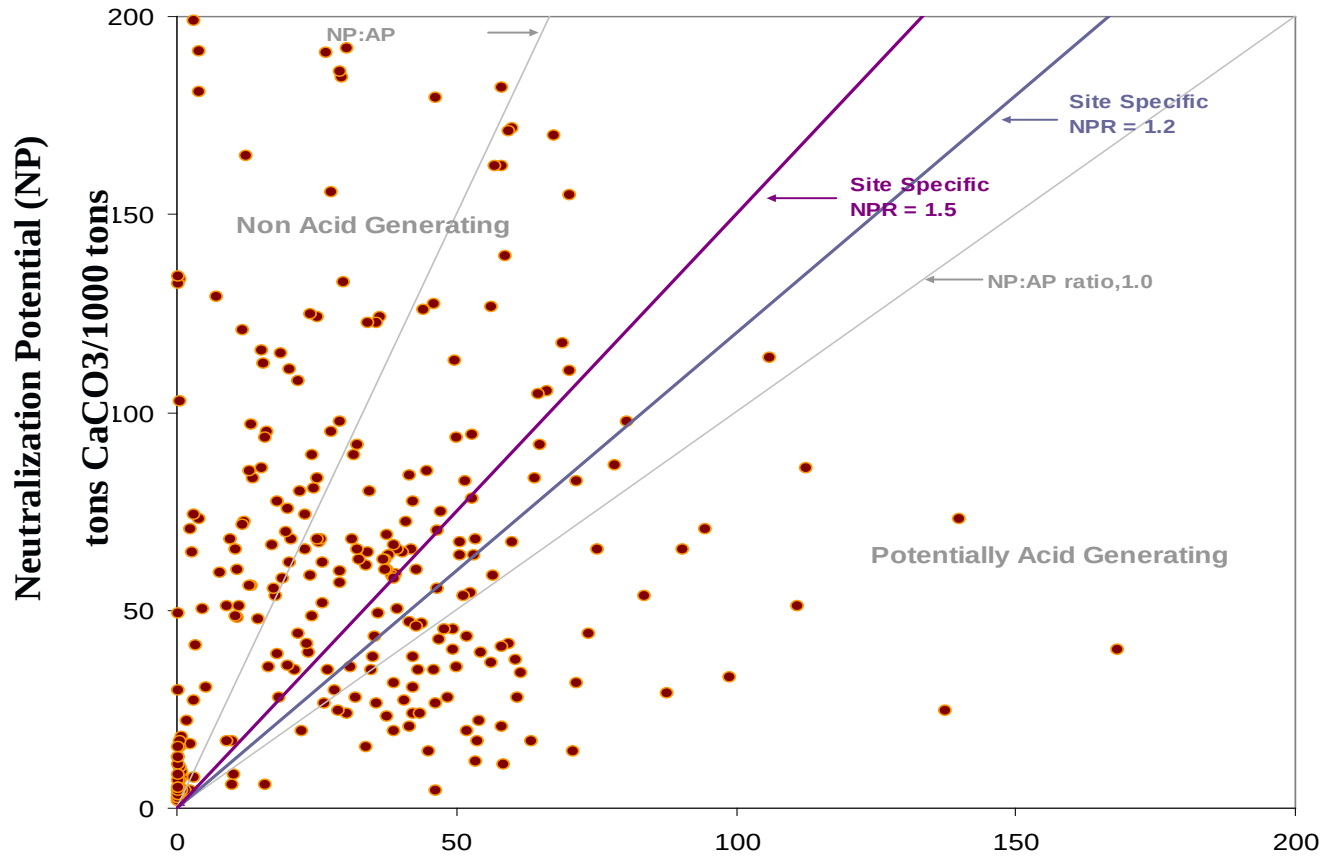
WASTE PRODUCTS

Geochemistry
(Water Chemistry)

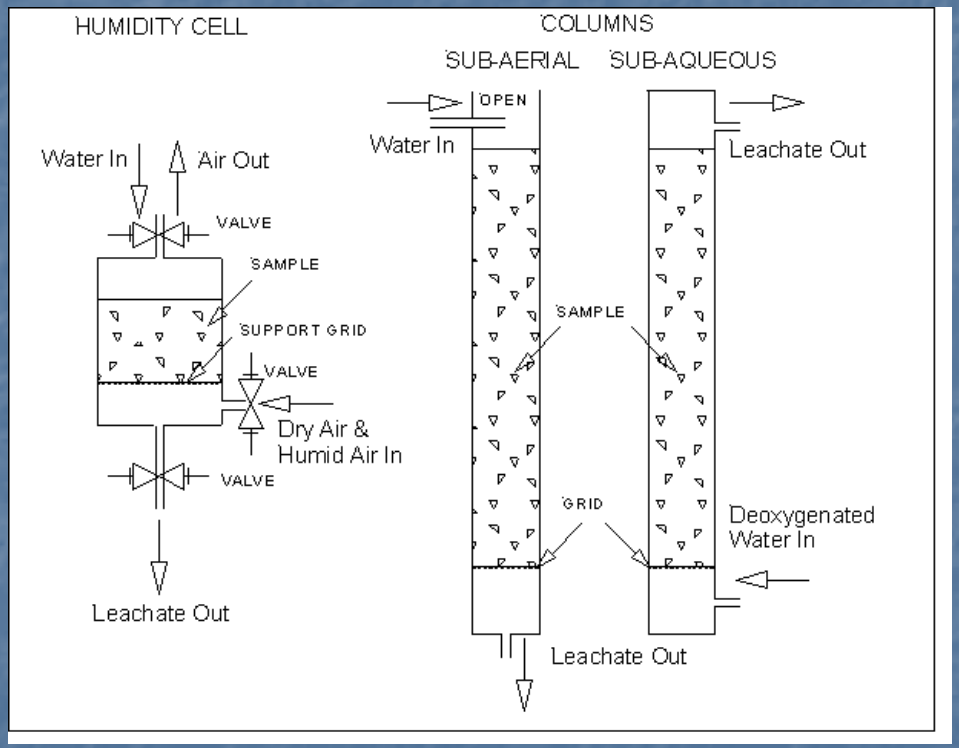
Water Quality!


Rain
Reactive
Waste Rock
or Tailings
Acid Rock
Drainage
(ARD)
Metals
Leaching
(ML)
Rain
Benign
Waste Rock
or Tailings
Water meets
Clean Water
Standards

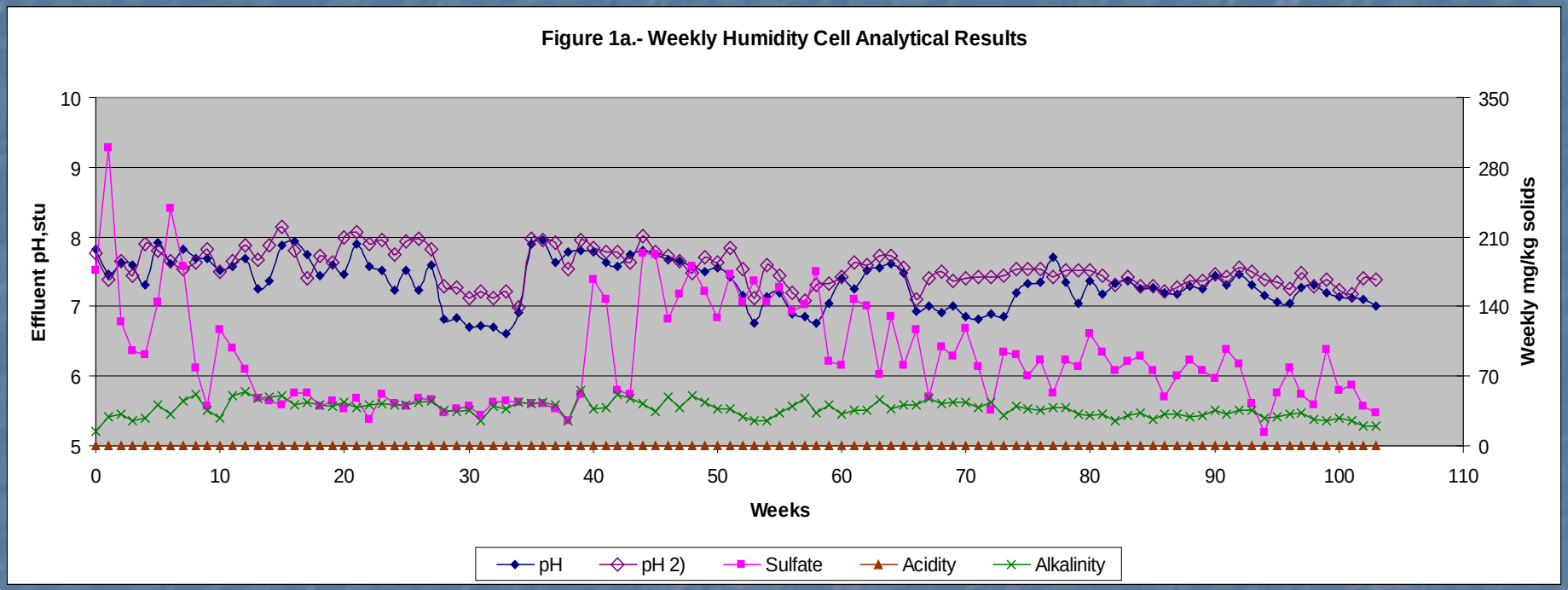
Neutralizing Potential vs. Acid Producing Potential (NP:AP)



Column Tests or Humidity Cells Measure Long Term Chemical Trends in Waste Rock



Humidity Cell Test Results



This test lasted for 103 weeks before being terminated

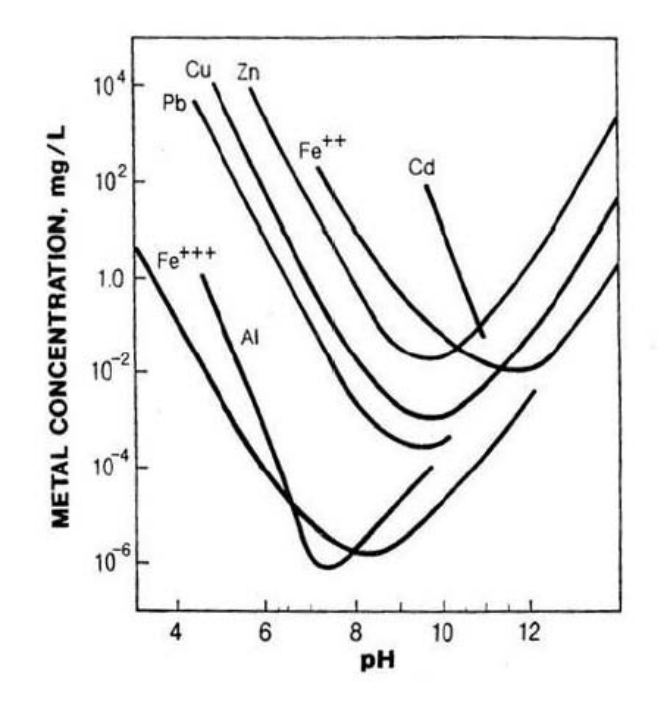
All of this geochemical information is used to predict the likelihood of developing acid rock drainage or metals leaching at the proposed mine.

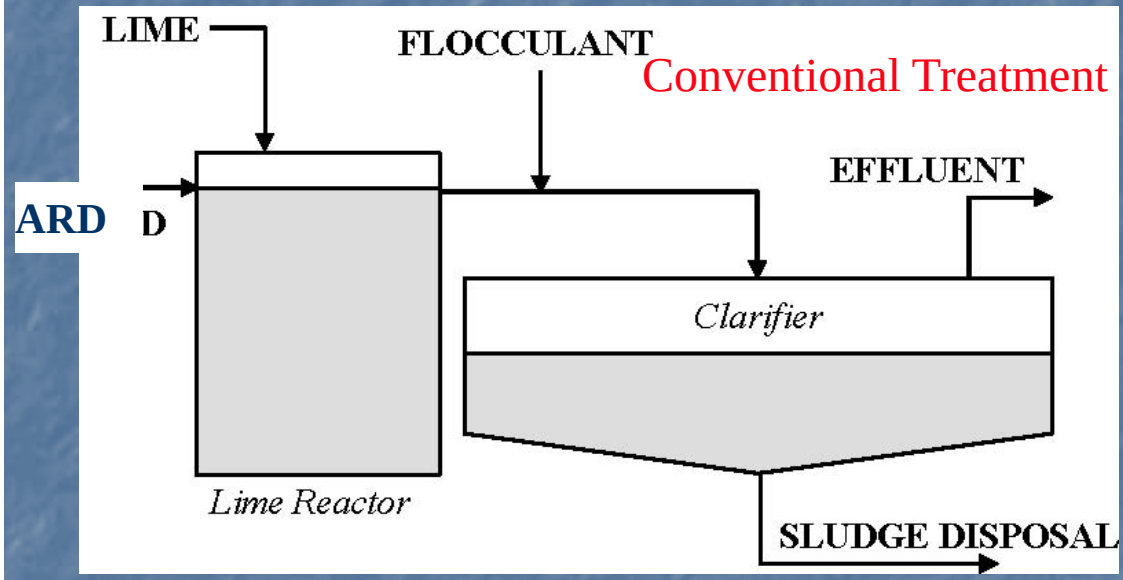
Understanding the geochemistry is essential to designing the mine (including waste storage, closure options)

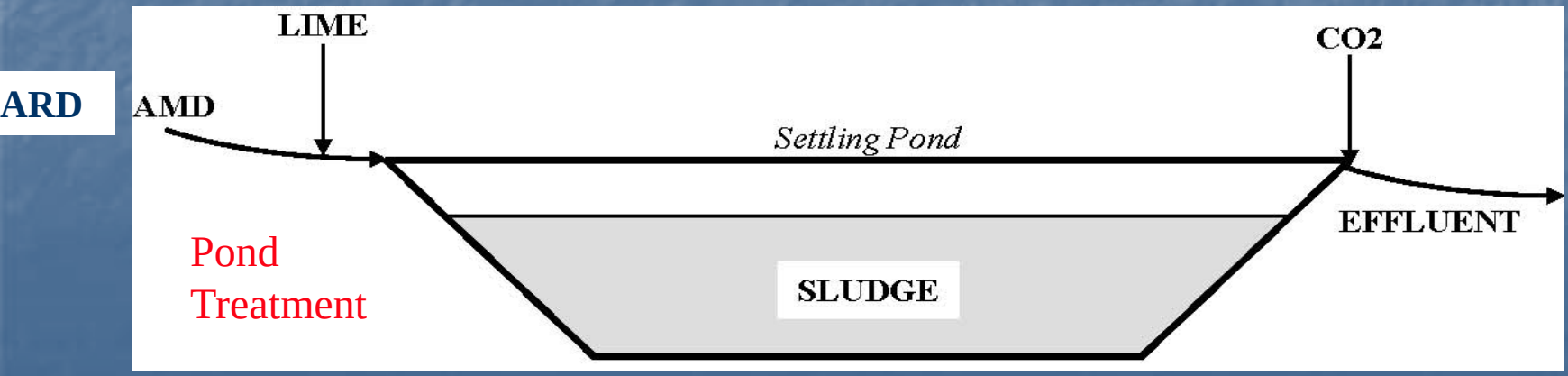
Example: Red Dog drainage from waste rock piles must be captured and treated prior to discharge

Water Treatment

(when required)

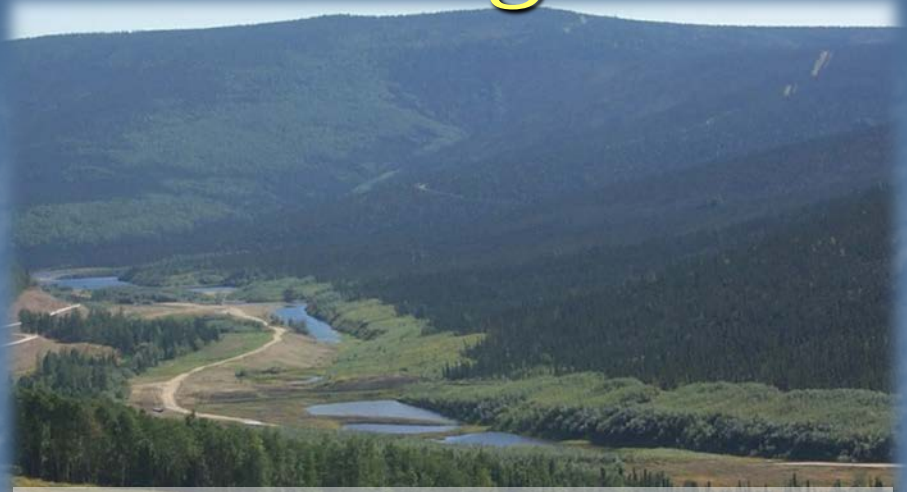






Greens Creek Mine –Water Treatment Plant

Desired Outcome of Mine Regulations



Existing conditions downstream of the Fort Knox Mine

Historic Outcomes
(Spain & Pennsylvania)

Desired Outcome
(Alaska)

Existing conditions downstream of the Red Dog Mine

The Permits

State of Alaska Approvals

(not a complete list)

- **Waste Disposal Permits and Bonding** - (ADEC)
- **Fish Habitat Permits** (DNR/OHMP)
- Certification of ACOE permits - (ADEC)
- Sewage Treatment System Approval - (ADEC)
- **Air Quality Permits** - (ADEC)
- Water Rights - (DNR)
- **Monitoring Plan Approval** - (DNR/ADEC/ADF&G)
- Right of Way/Access - (DNR/DOT)
- **Reclamation Plan Approval** - (ADNR)
- Cultural Resource Protection - (DNR)
- **Dam Safety Certification** - (DNR)
- **Plan of Operations Approval** - (DNR)
- **Surface Coal Mining Control and Reclamation Permit (DNR)**

Overview of ADEC Integrated Waste Management Permit

- Integrated Waste Management Permit
  - 18 AAC 60 – Solid Waste Management
  - 18 AAC 70 – Water Quality Standards
  - 18 AAC 72 – Wastewater Disposal
- Typical Wastes Managed
  - Tailings
  - Waste Rock
- Potential Contaminants Controlled
  - Acid Rock Drainage
  - Metals Leaching
  - Process Chemicals
- Primary Focus of Protection
  - Surface Water
  - Groundwater

Integrated Waste Management Permit

- DEC Solid Waste Program
  - Tailings and waste rock disposal, plus garbage, sewage sludge disposal
- Wastewater Discharge Program
  - Wastewater from disposal and processing operations

Integrated Waste Management Permit

- Typically supported by many of the following
  - Mine Plan of Operations
  - Monitoring Plan
  - Environmental Baseline Data
  - Reclamation & Closure Plan
  - Financial Assurance (bonding)
  - Wastewater Plan
  - Storm Water Pollution Prevention Plan (SWPPP)
  - Waste Characterization and Management Plan
  - Design and Construction Documents
  - Hydrology, Geochemistry Analysis, Mass Load Modeling, etc.

A Solid Waste Disposal Permit is required when:

- The waste material poses a threat to public health, safety, or welfare or to the environment;
- The waste material is being managed in a manner that causes a nuisance;
- The tailings from hard rock or placer have been amalgamated or chemically treated, or is not otherwise exempt from the regulations;
- There is an environmental problem associated with the management of the waste or materials
  - Waste rock or tailings that may cause acid rock drainage (ARD) or metals leaching are examples of mining wastes that would require a permit. Typically these wastes would need to be disposed at a facility that meets the requirements of an industrial waste facility.

Exemptions:

- Mining waste that is regulated by the Federal Surface Mining Control Act of 1977 and by the Alaska Surface Coal Mining Control and Reclamation Act (AS 27.21)
- Storage of small quantities of waste
- Other exemptions that normally don't apply to large mine permitting

Other ADEC Permits

- CWA Section 404 Permit Certifications.
- Storm Water Discharge Certifications
- Air Quality Permits
  - mine construction
  - mine operation
- Other permits & approvals
  - drinking water system, domestic wastewater system, food service permits, fuel storage plan

Alaska Pollution Discharge Elimination System Program (APDES)

- ADEC assumed full authority (from EPA) to administer the (APDES) wastewater and discharge permitting and compliance program for Alaska in 2012.
- Mines that have a need to discharge water to the surface environment typically require an APDES discharge permit
- APDES permitted water discharges have to meet stringent water quality standards

APDES Permitted Discharge at Red Dog Mine

Mixing Zones

- Mixing Zones are defined in 18 AAC 70.990(38) as an area in a water body surrounding, or downstream of, a discharge where the effluent plume is diluted by the receiving water within which specified water quality criteria may be exceeded.

Mixing Zones

- Defined in Alaska Regulations 18 AAC 70.990(38).
- Are part of most permitted discharges to surface water.
- Required to be as “small as Practicable” 70.240(k)
- Can apply to both domestic and industrial discharges.
- Size is designated by the state (DEC)

Discharge vs. Zero Discharge Mines

- Facilities that discharge to surface water
  - Designed to discharge to the environment
  - Incorporates treatment prior to discharge
  - Direct hydraulic connection to surface water
  - Mixing zone in receiving water may be necessary
  - State APDES permit typically required
  - Examples: Red Dog Mine, Pogo Mine, Kensington Mine, Greens Creek Mine
- Facilities with zero discharge to surface water
  - Designed to contain or use all water
  - No discharge to environment
  - No direct hydraulic connection to surface water
  - Example: Fort Knox Mine

Typical Water Monitoring Required at Large Mines

- Facilities with zero discharge to surface water:
  - Groundwater and surface water monitoring to ensure that facility is operating as no-discharge (chemical and physical)
  - Process water monitoring
  - Tailings solids monitoring
  - Waste rock monitoring
  - Biological monitoring
  - Example: Ft. Knox Mine
- Facilities that discharge to surface water :
  - All of the above monitoring
  - Upstream and downstream water monitoring
  - Examples: Red Dog Mine and Pogo Mine

Engineered cover being placed over waste rock at the Greens Creek Mine

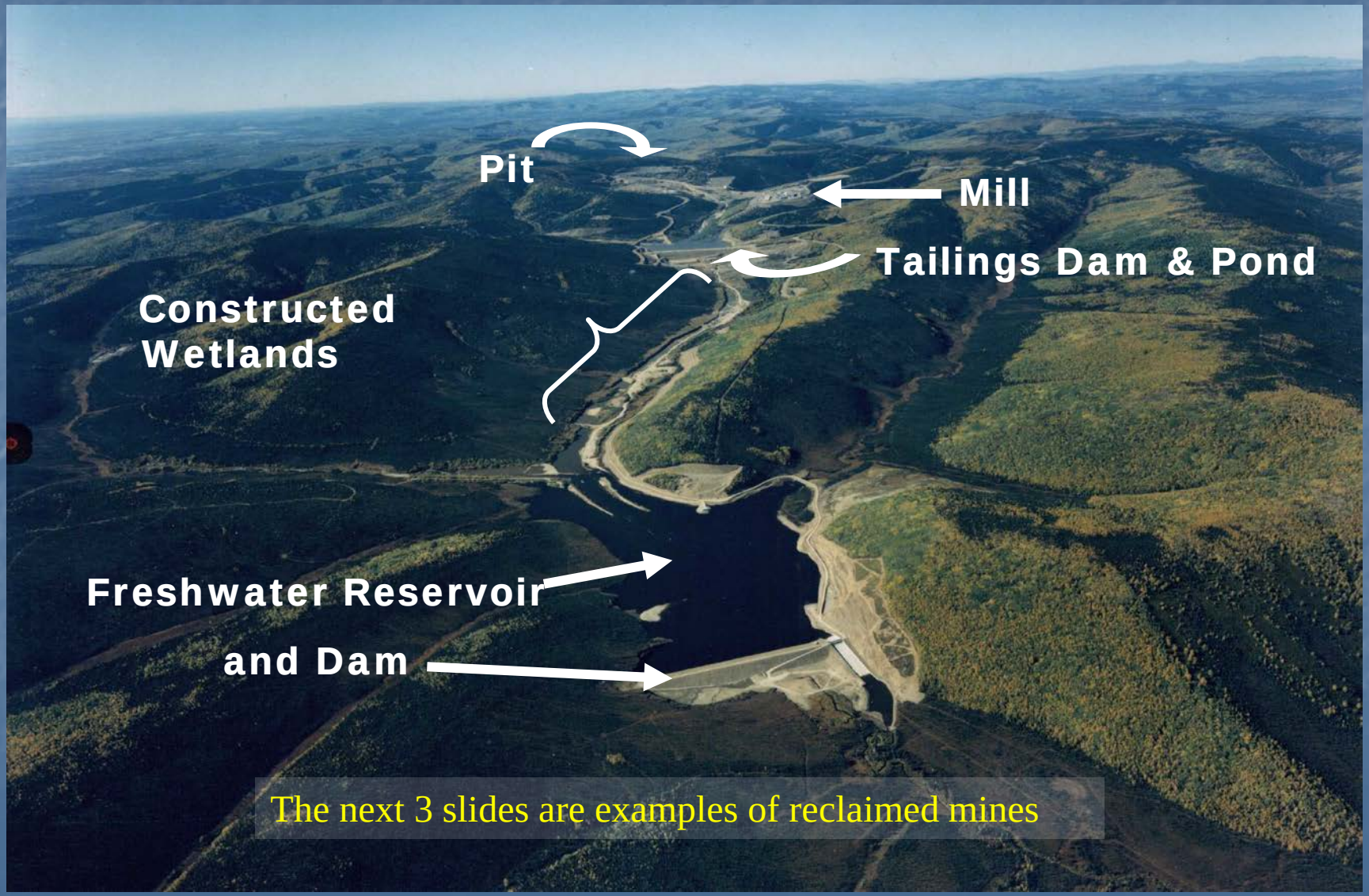
Reclamation Plan Approval Issued by ADNR

Division of Mining, Land and Water - Mining Section

- Minesite must be returned to a stable condition, compatible with the post-mining land use (AS 27.19.02)
- Financial Assurance must ensure State can perform the reclamation if company cannot.

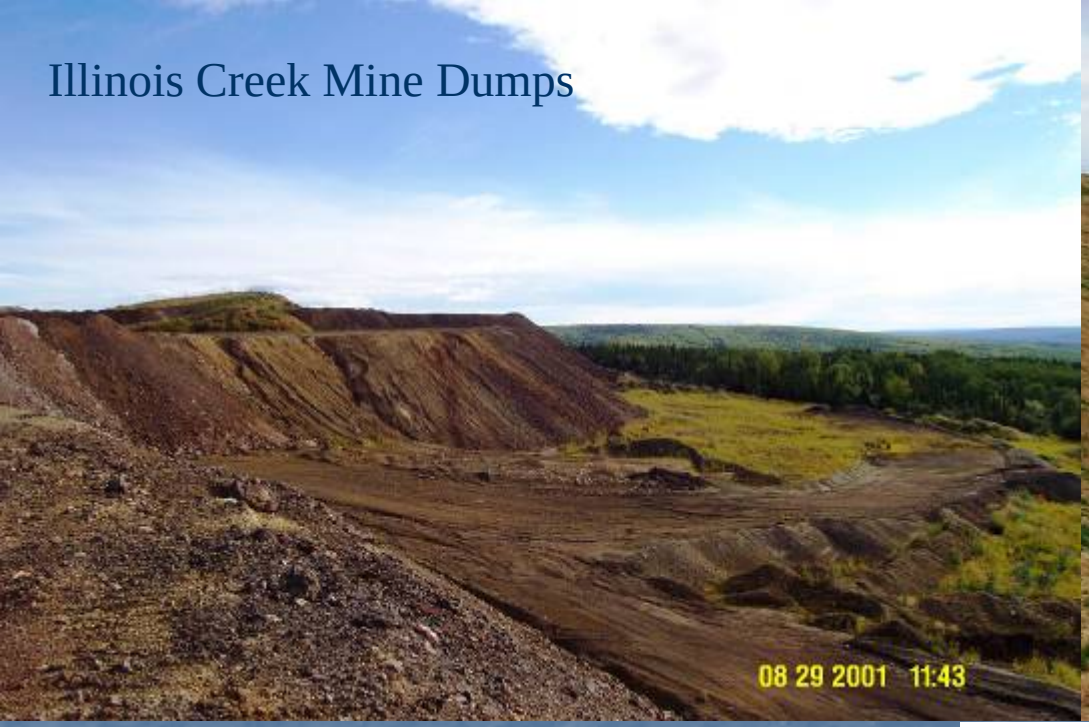
Example of an operating mine

Fort Knox Mine



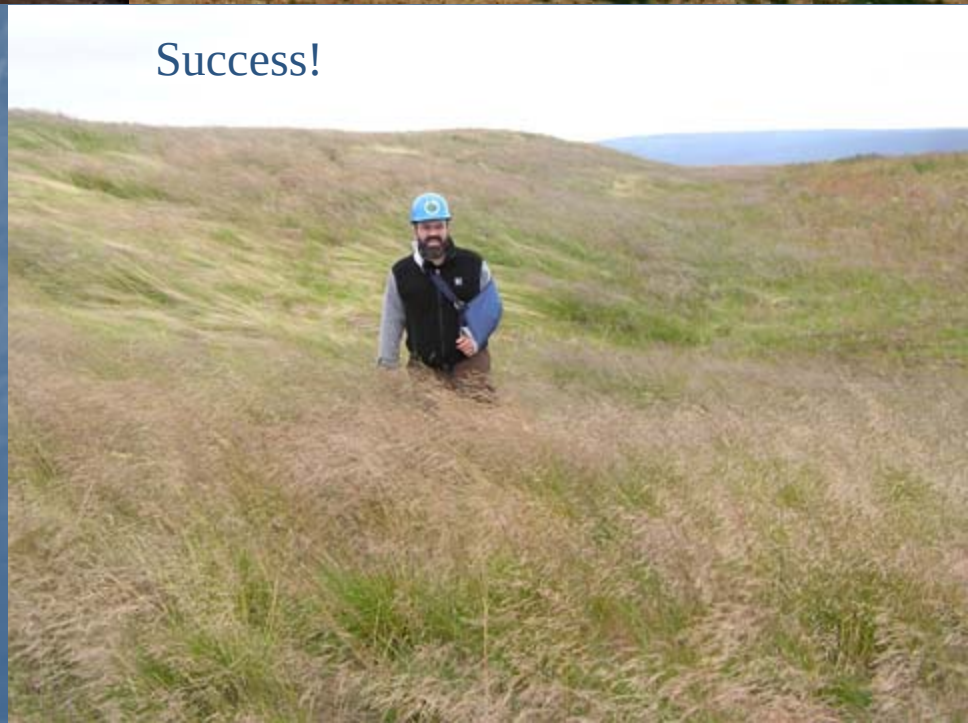
Illinois Creek Mine Reclamation

Illinois Creek Mine Dumps

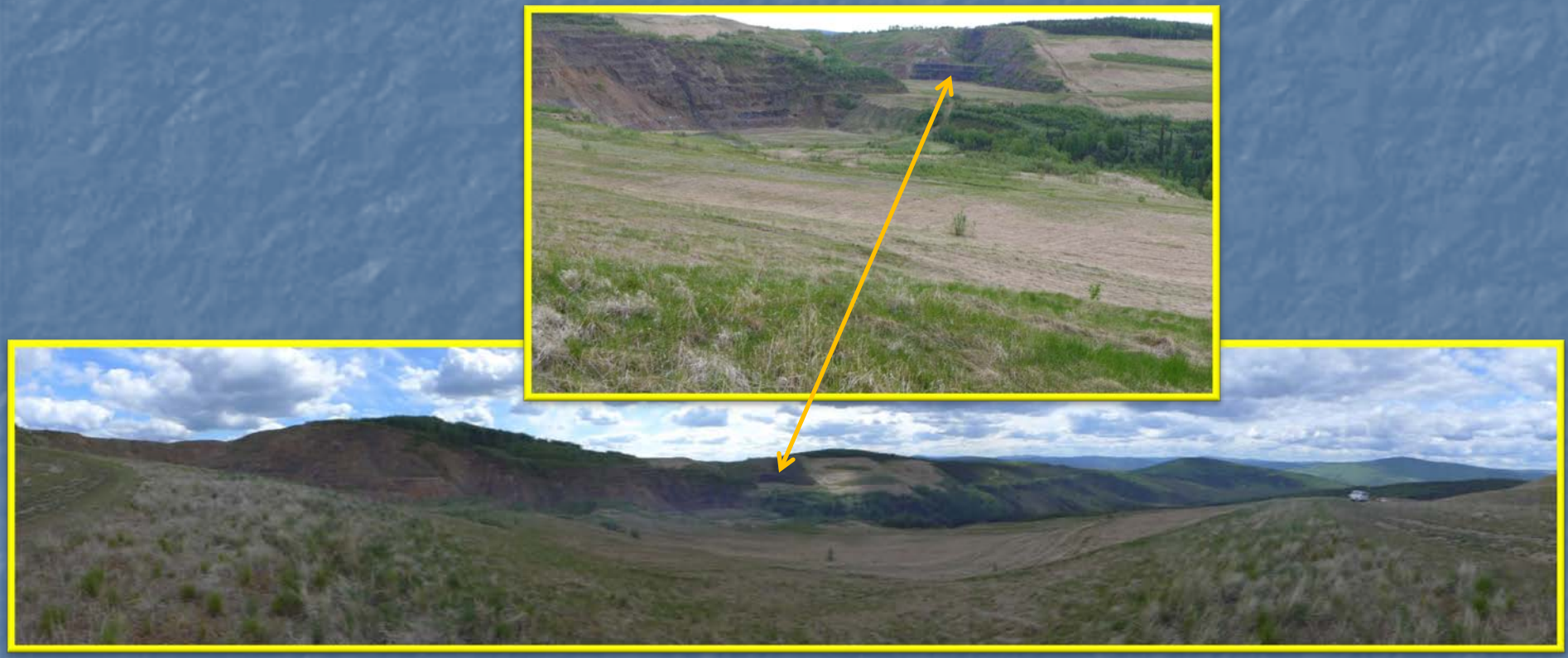


Initial Recontour & Seeding

Success!



True North Mine Reclamation



Landusky Mine Reclamation
2000 to 2005

From Scott Haight, U.S. Bureau of Land Management

Financial Assurance

- Financial Assurances (FA) are required from each mine operator so that reclamation and closure activities can be performed if the operator is unable to do so.
- FA may be in the form of a Bond, Letter of Credit, Cash, Collateral. Most are Letters of Credit
- Trust Funds can be used used for long-term obligations under AS 37.14.800
- Requirement applies equally to US and non-US parent corporations

Financial Assurance

- FA amounts vary, mostly due to long-term obligations (water treatment, monitoring)
- FA amount is reviewed every 5 years through Environmental Audit as part of permit renewal process
- FA amount also reviewed anytime agencies feel it is warranted by a change in the scope/scale of mining operation

Financial Assurance is based on a detailed closure cost estimate

Teck-Pogo Inc.
teckcominco

Reclamation & Closure Plan Update

Table F.1: Demolition Hourly Labor Wage Rages

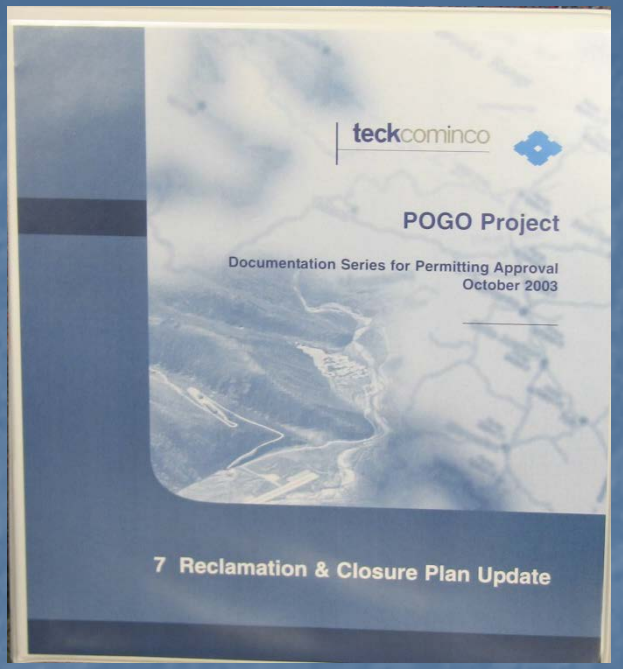
Description		General Demolition Crew	Mechanical Crew	Heavy Equipment Operator	Electrical Crew	Foreman	Laborer
Base Hourly Rate - straight time		$26.55	$26.04	$27.77	$30.83	$30.55	$23.43
Overtime for 50 hour week	10.0%	$2.66	$2.60	$2.78	$3.08	$3.06	$2.34
Adjusted Hourly Base Rate		$29.21	$28.64	$30.55	$33.91	$33.61	$25.77
Social Security, Medicaid, Unemployment, Liability, and Workers Comp Insurance	21.7%	$6.34	$6.22	$6.63	$7.36	$7.29	$5.59
Total Direct Hourly Labor Costs		$35.54	$34.86	$37.18	$41.27	$40.90	$31.37
Labor Indirects							
Benefits - percentage of adju							.74
Field Overhead - percentage							.32
Small Tools Allowance - rate							.00
Camp and/or Travel Allowan							.00
Total Indirect Hourly Costs							.06
Total Hourly Costs							.42

Teck-Pogo Inc.
teckcominco

Reclamation & Closure Plan Update

Table F.2: Hourly Equipment Rates ($)

Equipment	Equipment Lease Rate	Maintenance & Fuel	Support & Transport	Total
Excavator 330	31.00	52.00	16.60	100.00
Excavator 375L	48.00	89.00	27.40	164.00
Excavator 235	31.00	52.00	16.60	100.00
Dozer D10R	73.00			
Dozer D8R	42.00			
D6R Dozer	30.00			
Grader 16G	34.00			
Water Truck	20.00			
Tamrock Drill	48.00			
Shotcrete Machine	20.00			
Picker Truck	30.00			
Re-seeding	15.00			
Shear on 375L	65.00			
FE Loader 950	30.00			
FE Loader 980G	45.00			
FE Loader 992C	62.00			
Dump Truck 14Cy	25.00			
Self Load Flat Bed	50.00			
Low Bed Truck	35.00			
Dump Truck 17cy	31.00			
Crane Truck 20T	45.00			
Crane Truck 50T	70.00			
Track Skidder 528	50.00			



amec

POGO: RECLAMATION COST ESTIMATE (SEPTEMBER 2003)

Project Number: U419F
Currency: USD 4Q2002

Description	Qty	Unit	Unit Direct Hr	Total Direct Hr	TotalDirect Lab Cost	Unit Mat	Total Mat Cost	Unit Sub	Total Sub Cost	Unit Equip	Total Equip Cost	Total Cost
Phase I: Post-Construction				4,988	287,345		13,213		26,400		156,977	483,935
Phase II: Reclamation Concurrent with Mining												
A-07 WELLS				115	6,294		1,200		0		0	7,494
A-09 GRAVEL PADS				363	21,312		900		0		25,013	47,224
A-12 ROCK PILES				2,928	165,891		0		0		197,786	363,677
A-13 LINERS UNDER ROCK PILES				629	35,340		0		0		41,040	76,381
A-14 PADS UNDER ROCK PILES				340	19,996		870		0		23,860	44,726
A-15 EXPLOSIVES STORAGE				406	23,515		0		0		10,904	34,418
R-01 SURFACE BOREHOLES				2,000	114,060		50,000		0		31,260	195,320
S-00 WATER QUALITY ASSURANCE				0	0		0		10,000		0	10,000
Phase II: Reclamation Concurrent with Mining				6,781	386,408		52,970		10,000		329,862	779,241

Financial Assurances for Alaska Mines

Operation	*Total Bond ($ Millions)*
Greens Creek Mine	$65 (proposed)
Red Dog Mine	$305
Fort Knox Mine	$98
Kensington Mine	$29
Rock Creek Mine (closed)	$14
Pogo Mine	$57
Nixon Fork Mine (closed)	$6
TOTAL	$574

Alaska Dam Safety Program Approvals

Issued by
DNR Water Section
Dam Safety & Construction Unit

Approvals Include

- Certificate of Approval to Construct, Modify, Repair, Remove or Abandon a Dam

- Certificate of Approval to Operate a Dam

Technical Considerations for Dams

- Site location and hazard potential
- Geology and seismicity
- Hydrology and hydraulics
- Structural integrity, slope and seismic stability
- Seepage control
- Operations and maintenance
- Emergency contingency planning

Fort Knox Mine
Tailings Dam

Red Dog Mine
Main and Back Tailings Dams

Surface Coal Mining Control and Reclamation Permit (SMCRA)

Issued by DNR

Division Of Mining, Land and Water

Mining Section

- State coal primacy program with Federal oversight
- Prescribed engineering and design standards
- Financial assurance required
- Federal Applicant Violator System
- Mandatory monthly inspections
  - Inspectors have enforcement authority

Other DNR Authorizations

- Millsite Lease – Division Of Mining, Land and Water
- Plan of Operations Approval – Division Of Mining, Land and Water
- Material Sales – Division Of Mining, Land and Water
- Rights-of-Way (access, powerlines) – Division Of Mining, Land and Water
- Leases (off-site facilities, docks) – Division Of Mining, Land and Water
- Cultural Clearances – State Historic Preservation Office
- Water Rights – Division Of Mining, Land and Water

Alaska Department of Fish & Game Habitat Division Approvals

- AS 16.14.840: Fishway Act

For activities within or across a stream used by fish that could represent an impediment to the efficient passage of fish

- AS 16.14.870: Anadromous Fish Act

All activities within or across a specified anadromous waterbody and all instream activities affecting a specified anadromous waterbody require approval from the ADF&G

Environmental Monitoring

- Mines are required to perform routine environmental monitoring to assure their protection mechanisms are performing
- Monitoring is specified in a number of Monitoring Plans approved by ADNR, ADEC or ADF&G
- Typically air, water, fish and waste streams are monitored
- Monitoring begins prior to mine construction and continues through operational and closure periods
- Monitoring typically continues for 30 years following closure and reclamation

Environmental Audits

- Environmental Audits on 5 year schedule tied to reissuance of permits
- All environmental systems audited
- Audits evaluate agencies as well as operations
- Audits by 3rd party experts
- Financial Assurances audited and recalculated based on Audit results

The Agencies

State Agencies

Large Mine Permitting Team (LMPT)

- Department of Natural Resources
  (Lead State agency for coordination)
- Department of Environmental Conservation
- Department of Fish and Game
- Department of Law
- Department of Commerce, Community and Economic Development
- Department of Transportation & Public Facilities
- Department of Health & Social Services

Large Mine Permitting Team (LMPT)

DNR Coordinates the permitting of large mine projects in the state in accordance with AS27.05.010(b):

The department is the lead agency for all matters relating to the exploration, development, and management of mining, and, in its capacity as lead agency, shall coordinate all regulatory matters concerning mineral resource exploration, development, mining, and associated activities. Before a state agency takes action that may directly or indirectly affect the exploration, development, or management of mineral resources, the agency shall consult with and draw upon the mining expertise of the department.

Large Mine Permitting Team

- Coordinates review of applications and numerous State permit requirements
- Reviews, analyzes, and evaluates complex technical documents for adequacy and soundness
- Benefits from multi-disciplinary expertise of team members (geologists, engineers, hydrologists, biologists, environmental scientists)

Large Mine Permitting Team

- If the Team does not have the expertise, we can hire additional experts.
- At operating mines the team members conduct mine inspections and evaluates permit updates during operations.
- The Team is involved from pre-permitting to post-closure.
- State costs are billed back to the applicant/operator

State Agencies

- Department of Natural Resources
  - Division of Mining, Land and Water
    - Mining Section
    - Land Section
    - Water Section
      - Water Use authorizations
      - Dam Safety Construction Unit
  - Office of Project Management and Permitting

State Agencies

- Department of Environmental Conservation
  - Division of Water
  - Division of Air Quality
  - Division of Environmental Health

State Agencies

- Department of Fish and Game
  - Habitat Division
  - Division of Wildlife Conservation
  - Division of Subsistence
  - Sport Fish Division
  - Division of Commercial Fisheries

Federal Agencies

- **US Army Corps of Engineers**
- **US Fish and Wildlife Service**
- **National Marine Fisheries Service**
- **Bureau of Land Management**
- **U. S. Forest Service**
- **National Park Service**

Major Federal Regulatory Requirements

- **US ACOE Section 404 Dredge and Fill Permit**
- US ACOE Section 106 Historical and Cultural Resources Protection
- NMFS Threatened and Endangered Species Act Consultation
- NMFS Essential Fish Habitat
- USFWS Threatened and Endangered Species Act Consultation
- USFWS Bald Eagle Protection Act Clearance
- USFWS Migratory Bird Protection

U.S. Army Corps of Engineers (Corps) Involvement with Large Mines

Corps Regulatory Authorities

- Section 404 Clean Water Act
  - Regulates discharge of fill in waters of U.S.:
    - Corps permit required before discharge
    - fill includes the redeposit of wetland soil
    - applies on private, public, and Native lands
  - Waters of U.S.:
    - navigable waters and their tributaries
    - surface waters (lakes, sloughs, mudflats, etc.)
    - adjacent wetlands

Corps Regulatory Authorities

- Section 10 Rivers and Harbors Act of 1899
  - Work in, under, or over navigable waters
  - Structures and activities that affect course, condition, location, or navigable capacity
  - Includes tidal waters and territorial seas
  - Navigable Waters List (subject to Section 10) on website: Navigable Waters (http://www.poa.usace.army.mil/Portals/34/docs/regulatory/NavWat.pdf)

Corp Regulatory Authorities

- Section 103 Marine, Protection, Research and Sanctuaries Act (1972)
  - Disposal of dredged material in Ocean waters outside of territorial seas

Definition of Fill

- Material placed in waters of the U.S. with the effect of:
  - Replacing any portion of a water with dry land
  - Changing the bottom elevation of any portion of a water

Scope of Analysis

- Corps may broaden scope beyond waters of the U.S.:
  - Extent of Corps jurisdiction
  - Configuration of facilities/uplands affects location of regulated activity
  - Cumulative Federal control (e.g., land, $, permits)

Corps Permit Evaluation

- Public Interest Review
  - Balance benefits against detriments to public issues unless “contrary to the public interest”
- NEPA
  - EA/FONSI or EIS on all actions
- 404(b)(1) Guidelines
  - Analysis only on 404 permits
  - Least environmentally damaging practicable alternative (LEDPA)
  - All appropriate and practicable mitigation

Corps Permit Process

- Receive complete application
- Issue Public Notice
- Consider:
  - All public comments
  - Alternatives
  - Determine the LEDPA
  - Mitigation
- Make decision to issue or deny

Corps Permit Process with EIS

- Go through NEPA Process:
  - Scoping
  - Draft EIS (DEIS)
  - Final EIS (FEIS)
- Issue Public Notice on FEIS
- Consider:
  - All public comments
  - Determine the LEDPA
  - Mitigation
- Make decision to issue or deny

Permit Process with EIS

- Corps does not issue draft permits
- Corps permits are not placed in DEIS or FEIS
- Corps must issue Record of Decision (ROD)
- Corps does not request comments on ROD

404(b)(1) Guidelines

- Different than NEPA process:
  - Corps must select LEDPA
  - LEDPA may not be same as preferred alternative in EIS
- NEPA provides information for 404(b)(1)
  - More information may be required

404(b)(1) Guidelines

- Discharge cannot be authorized if:
  - Violates applicable State water quality standards
  - Violates applicable toxic effluent standard or prohibition
  - Jeopardizes threatened or endangered species
  - Violates Marine Sanctuary designation
  - Contributes to significant degradation of waters of the U.S.

404(b)(1) Guidelines

- Discharge cannot be authorized if:
  - Significant adverse effect on aquatic life or dependent wildlife
  - Significant adverse effect on aquatic ecosystem diversity, productivity, and stability
  - Significant adverse effect on recreational, aesthetic, and economic values
  - All appropriate and practicable steps to minimize potential adverse impacts

Alternatives

NEPA	404(b)(1)
Reasonable alternatives: • Feasible • Accomplish purpose and need • Not necessarily available	Practicable alternatives: • Available & capable of being done • Considers overall project purpose • Considers cost, technology, & logistics

For More Corps Information

- Call: 1-800-478-2712 (statewide), 474-2166 (Fairbanks)
- Visit us: 2175 University Avenue, Suite 201E (Fairbanks)
- Visit our website: http://www.poa.usace.army.mil/Missions/Regulatory.aspx

Presentation Summary

- DNR Synchronizes permitting to greatest extent possible including public participation and the technical review of permit applications, mine plans and supporting data.
- Design for Closure is encouraged
- Monitoring Plans are designed to ensure appropriate monitoring (air, water, reclamation success, etc) through life of mine and beyond
- Mines are required to provide adequate financial assurance
- Environmental Audits required every 5 years

Presentation Summary

- State and Federal agencies each have their own regulatory authorities in the large mine permitting process.
- Permit applications for Federal permits (i.e. 404 Fill Permit from the Corps) trigger NEPA which typically includes an EIS for large mines

How Can We Improve?

- More, different Public involvement?
- More information dissemination?
- More educational outreach?
- Other Ways?

The State of Alaska is always interested in hearing about how you think we can improve the large mine permitting process

CHECK US OUT AT:

http://www.dnr.state.ak.us/opmp/

or

http://www.dnr.state.ak.us/mlw/mining/largemine.htm

For questions or suggestions please contact:

Jack DiMarchi, Large Project Manager
Jack.DiMarchi@alaska.gov

(907) 451-2806