### POA-2017-271 PROJECT BRIEF

Shane McCoy Program Manager US Army Corps of Engineers, Alaska District Regulatory Division Date: 03 April 2019









### **SCOPE OF PRESENTATION**



#### PROCESS

Permit Review Process
 USACE Authorities
 Decisions
 Interdisciplinary Team
 Public Engagement
 Media Engagement
 Tribal Engagement

#### PROJECT

Overview
Scoping
Development of DEIS
Next Steps



### USACE AUTHORITIES AND COMPLIANCE WITH FEDERAL LAW April 2019



Section 10 Rivers and Harbors Act Any work affecting the course, condition, location or capacity of a navigable waterbody

Section 404 Clean Water Act Authorized to issue permits for the discharge/placement of dredged or fill material into waters of the United States





Compliance with other Federal Law Endangered Species Act

Fish and Wildlife Coordination Act

National Environmental Policy Act

National Historic Preservation Act

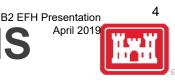
Magnuson Stevens Fishery Conservation and Management Act

Marine Mammals Protection Act





# **OTHER FEDERAL DECISION MAKERS USING EIS**



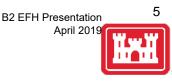
### U.S. Coast Guard (USCG)

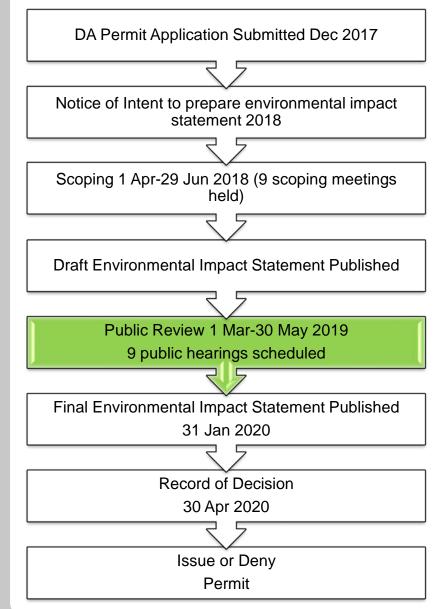
- Authority: over locations and clearances of bridges and causeways in or over navigable waters of the U.S. under the Bridge Act.
  - Proposed activity requiring permit: Bridge over Newhalen River

Department of the Interior's Bureau of Safety and Environmental Enforcement (BSEE)

- Authority: oversees safety, environmental protection, and conservation of resources related to the exploration for and development of offshore resources on the Outer Continental Shelf (OCS) under the Outer Continental Shelf Lands Act.
  - Proposed activity requiring permit: right-of-way encompassing the natural gas pipeline that would lie on the OCS of Cook Inlet.







#### USACE DETERMINATIONS in RECORD OF DECISION

- Least Environmentally Damaging Practicable Alternative Determination (LEDPA)
- Whether the proposed project or a practicable alternative is the LEDPA
- ➤Whether the LEDPA is contrary to the public's interest
- Whether the LEDPA will cause or contribute to the violation of applicable state or federal laws
  - Ex: State Water Quality Standards
  - Ex: Endangered Species Act
- Whether the LEDPA will result in significant degradation of waters of the United States.
- Whether the LEDPA includes appropriate and practicable steps to minimize the adverse impacts of the project on wetlands and other waters.
- Consideration of the relative extent of the public and private need for the proposal and the public interest.



# PROCESS REQUIREMENTS

#### Process Requirements Standard Permit < 120 days EIS required time 105 days (scoping 30, DEIS 45, FEIS 30)

Public Notice Permit Application for 15 days & mail to adjacent property owners

Provide the public a 30 day opportunity to provide input into scope of DEIS

Publish the Draft EIS in Federal Register with required 45 day public comment period

Publish Final EIS in Federal Register for 30 day period

#### **S** USACE Efforts Schedule for this project: 850 days EIS time required by regulation: 210 days Scoping 90 days, DEIS, 90 days, FEIS 30 days

Permit Application mailed to 31 Federally Recognized Tribes Permit Application made available on District Website (Jan18) and pebbleprojecteis.com (Mar 18) Permit Application Public notice 30 days January 2018. Permit Application Public notice 90 days concurrent with DEIS review

Baseline data made available on pebbleprojecteis.com Scoping package developed to explain process Public meetings held in nine communities Video by applicant explaining proposed project developed at USACE request and made publically available and played on loop during meetings 30 day public comment period extended to 90 days Scoping webinar Scoping Newsletter to residents and published on website

Draft EIS mailed to 38 Federally Recognized Tribes on thumb drive Made available at nine public libraries Published in federal register with 90 day comment period DEIS Newsletter to residents and website DEIS How to Comment Package Nine Public Hearings Scheduled

#### Additional:

Monthly Media Roundtables Transcripts Available via website Media Availability during scoping Key Note panel at Alaska Forum on the Environment Real Time Data upload of all project information on website Pre DEIS comments from cooperating agencies available on website





# **PUBLIC ENGAGEMENT - WEBSITE**



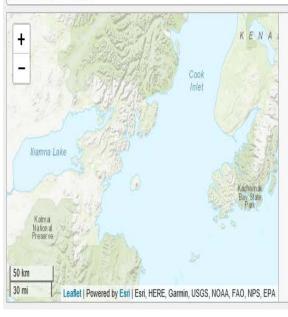
Project website (www.PebbleProjectEIS.com) went live on March 19, 2018

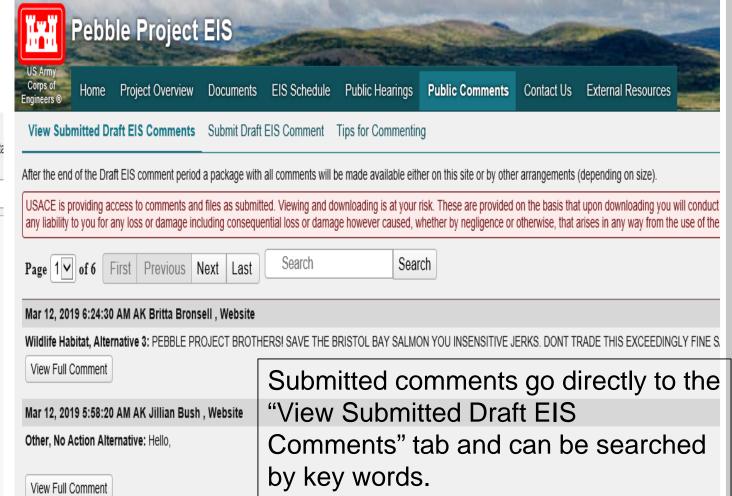
You can input location information for your comment.

#### Include a map location about your comment

You can use the map below to include a location about your comment. For example, show us where in the project area you feel is important for wildlife habita reference. Click on the map and a marker will be placed at that location. Click again to move the maker to a new location

#### No Action Alternative







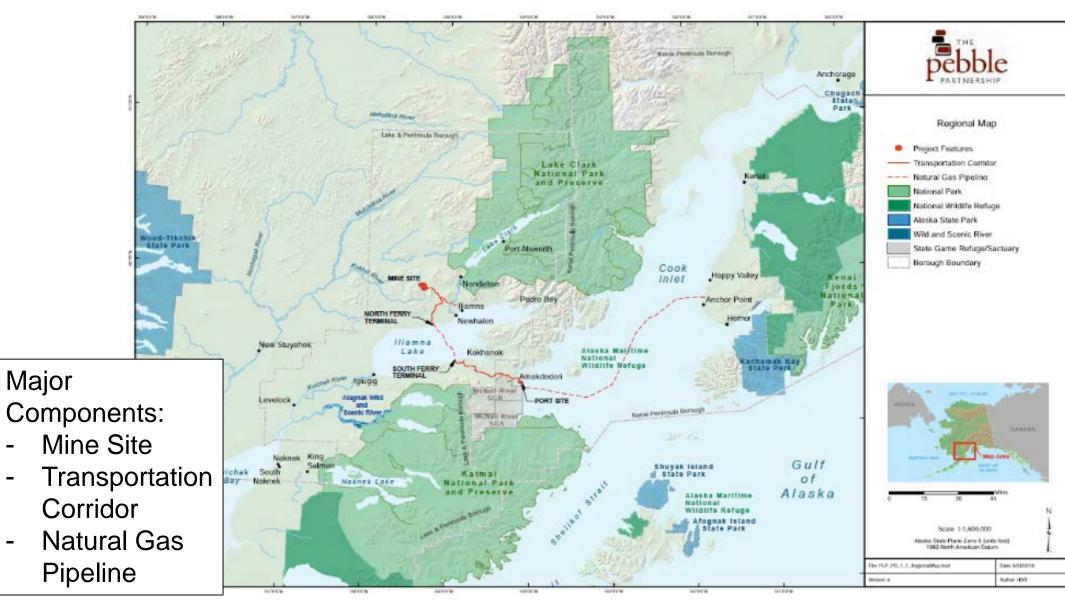
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# **PROPOSED PROJECT - OVERVIEW**





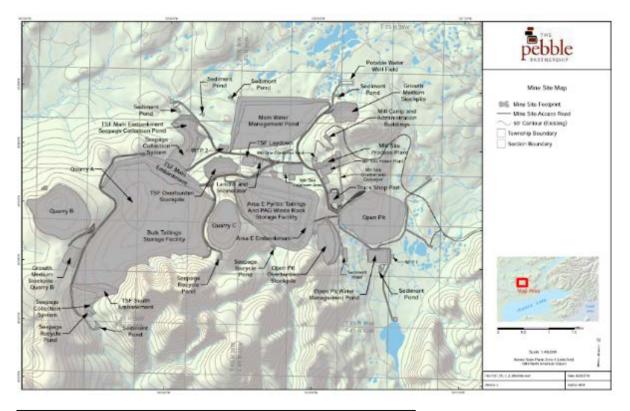
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# **PROPOSED PROJECT**



#### MINE SITE

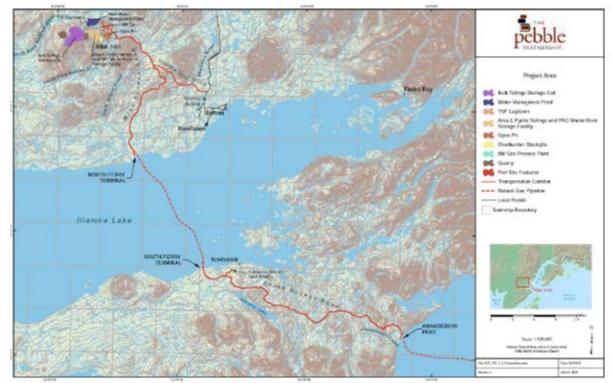


#### Mine Site Area:

- 8 miles long x 4.8 miles wide
- 8,086 acres -

Transportation Corridor (including spur roads):

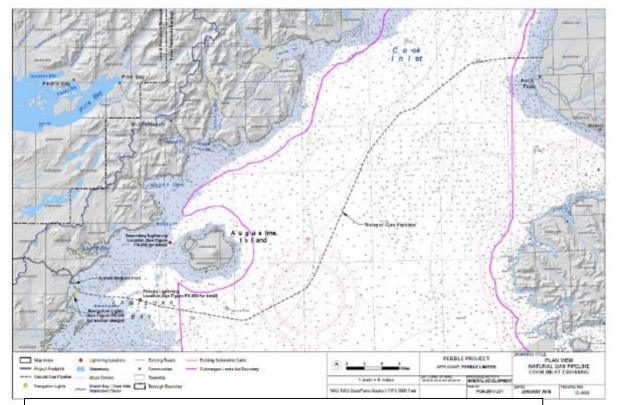
- Port to South Ferry Terminal: 37 miles
- Ferry Route across Iliamna Lake: 18 miles -
- North Ferry Terminal to Mine: 29 miles







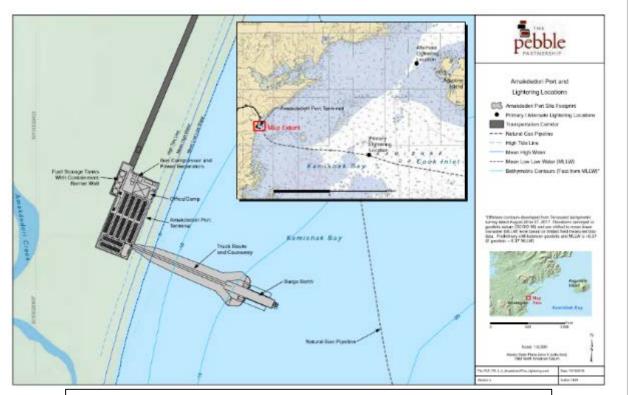
#### NATURAL GAS PIPELINE



Natural Gas Pipeline in Navigable Waters:

- Cook Inlet: 104 miles
- Iliamna Lake: 18 miles

#### AMAKDEDORI PORT SITE

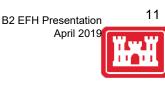


Amakdedori Port (40 acre facility):

- 1,900 feet long causeway/wharf
- Sheetpile and granular fill



# **USACE JURISDICTION**



#### IMPACTS/ACTIVITIES PROPOSED UNDER SECTION 10 RIVERS AND HARBORS ACT

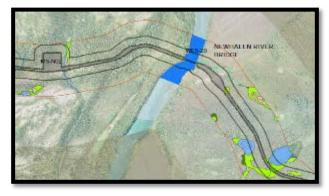
- 1,900 foot long causeway/wharf;
- six mooring buoys at two separate locations for lightering;
- 122-miles of natural gas pipeline;
- two ferry terminals; and
- four mooring/navigation buoys; and two lighted navigation buoys.

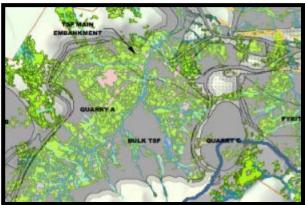




### IMPACTS PROPOSED UNDER SECTION 404 OF CWA

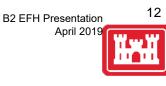
- Permanent placement of dredged or fill material into 3,555.4 acres of waters of the U.S., including wetlands, and,
- Temporary placement of dredged or fill material in to 518.3 acres of waters of the U.S., including wetlands,
- as part of the construction of an open pit mine, tailings and water storage impoundments, power plants, rock source sites, mineral processing facilities, a port facility, roads, ferry terminals, and a natural gas pipeline.







# STATE OF ALASKA APPROVALS AND PERMITS



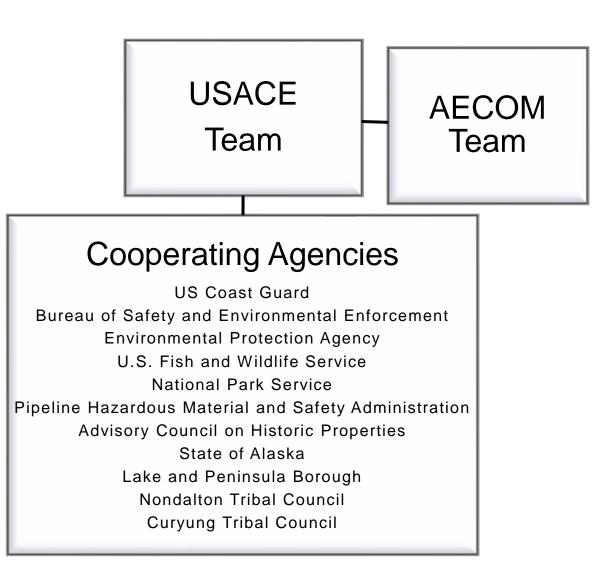
State of Alaska Permits Required:

- Clean Air Act
- Alaska Air Quality Control
- Clean Water Act certifications under Sections 401 and 402
- Wastewater Disposal
- Drinking Water
- Water Use
- Oil and Hazardous Substances Pollution Control
- Anadromous Fish Act
- Fishway Act
- Special Area Use
- Material Sites
- > Oversize vehicle
- Transport of Hazardous Materials
- ➤ Utility

- Proposed Road
- Natural Gas Pipeline



### **INTERDISCIPLINARY TEAM**







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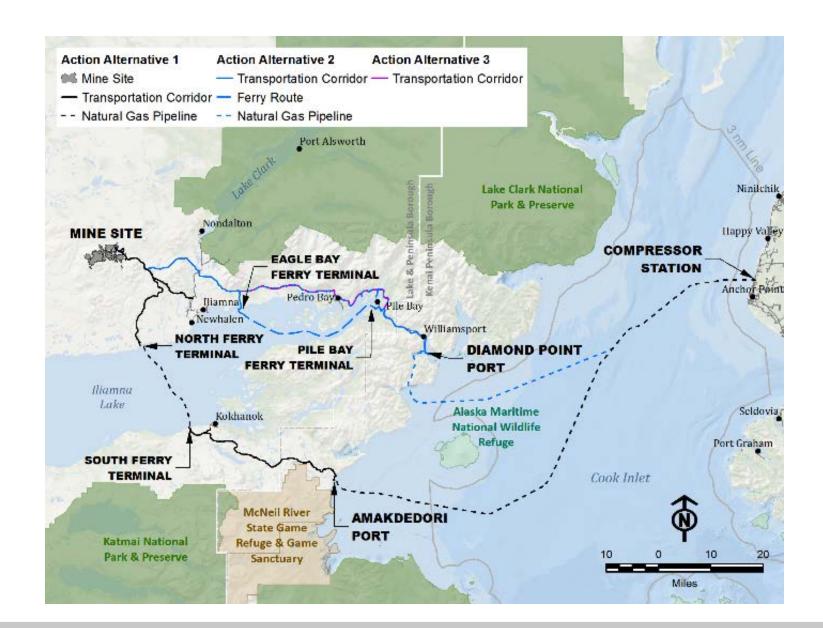
- > 174,889 submissions
- > 295,721 Petition signatures (not validated)
- Main Topics Raised
  - Socioeconomic impacts
  - NEPA Process
  - Wildlife impacts
  - Fish Impacts
  - Tailings Dam

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### **Alternatives**







### **Alternatives**



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Alternative 1: Pebble's Proposed Project
Alternative 2: North Access Road & Ferry
Alternative 3: North Access Road Only

•No Action Alternative









### **Resources Analyzed in the DEIS**



Social Environment		Physical Environment		Biological Environment	
0	Cultural Resources	0	Geohazards	0	Wetlands and Other Waters/Special Aquatic
0	Historic Properties	0	Geology		Sites
0	Land use and management	0	Soils	0	Vegetation
0	Subsistence	0	Surface Water Hydrology including flood plains	0	Birds
			and flood hazards	0	Terrestrial Wildlife
0	Transportation and Navigation	0	Groundwater Hydrology	0	Fisheries and Aquatic Resources
0	Aesthetics	0	Water and Sediment Quality	0	Marine Wildlife
0	Recreational and Commercial Fisheries	0	Noise	0	Threatened and Endangered Species
0	Recreation	0	Air Quality		0
0	Needs and Welfare of the People (Socioeconomics)	0	Climate Change		
0	Environmental Justice				
0	Health and Safety				
0	Food and Fiber				



# SURFACE WATER AND GROUNDWATER

#### Key Resource Characteristics

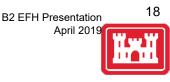
- surface water hydrology, groundwater hydrology, and water and sediment quality

#### Concerns Expressed During Scoping

- streamflow reduction
- impact to groundwater aquifers and flow
- surface water/groundwater interaction and quality
- effects of climate variability

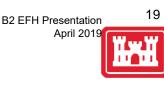
#### Unique Analytical Elements –

- zero-discharge of untreated contact water; no need for additional water from outside mine site
- AECOM Conducted independent reviews of: PLP water balance models and how long-term climate trends are incorporated, water management plans, water treatment /discharge plans, and baseline data/reports





### **FISH VALUES**



#### > Key Resource Characteristics

- Kvichak and Nushagak River salmon resources are world class, contribute to major subsistence, commercial, and recreational fisheries
- Over the past 20 years the Kvichak River contributed 45 percent of the average annual inshore Bristol Bay sockeye salmon return while the Nushagak River accounted for over 2.3 million sockeye salmon per year
- A draft EFH Assessment is in Append I of the dEIS

#### Concerns Expressed During Scoping

- Potential direct/indirect impacts to aquatic resources
- Habitat loss, fish displacement, changes in stream flow and productivity, stream sedimentation and turbidity, water temperature and fish migration

#### Unique Analytical Elements

- Affected watersheds, including the NFK, SFK, and UTC, were analyzed for potential impacts to aquatic resources
- The extent and productivity of stream reaches affected by the project were assessed, including potential impacts to salmon populations



# **COMMERCIAL AND RECREATIONAL FISHERIES**



#### Key Resource Characteristics

- worlds largest commercial sockeye fishery, ex-vessel value of \$216 million, 1863 drift net/972 set permits, > 4000 processing jobs, and nearly \$15 million combined in sales/ real property/raw fish taxes in 2017
- well-known fisheries resources support sport fishing lodges, fishing guides and related services, and generate revenue

### Concerns Expressed During Scoping

- routine operations/accidental releases impact fish populations
- reductions in employment/income, product value, tax revenue
- damage to the reputation of the fisheries

### Unique Analytical Elements

- projected impacts on water quality, fish habitat, and accidental releases drive impacts on fish populations and availability for harvest
- historic fluctuations in returns, catch, fish price and employment assessed
- assessed potential for reputational impacts based past oil spills and mining in salmon watersheds



### SUMMARY



USACE has taken unprecedented steps to engage the public and federally recognized Alaska Native Tribes

USACE has developed a DEIS appropriately constrained by regulatory authorities

USACE's analysis will be refined based on input from the public during the 90 day comment period for the DEIS and permit application

USACE – Regulatory is not a proponent or opponent of ANY project

No decision regarding the permit application will be made until a minimum of 30 days after the FEIS is released to the public

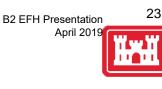


### **QUESTIONS?**

B2 EFH Presentation 22 April 2019



# PUBLIC ENGAGEMENT



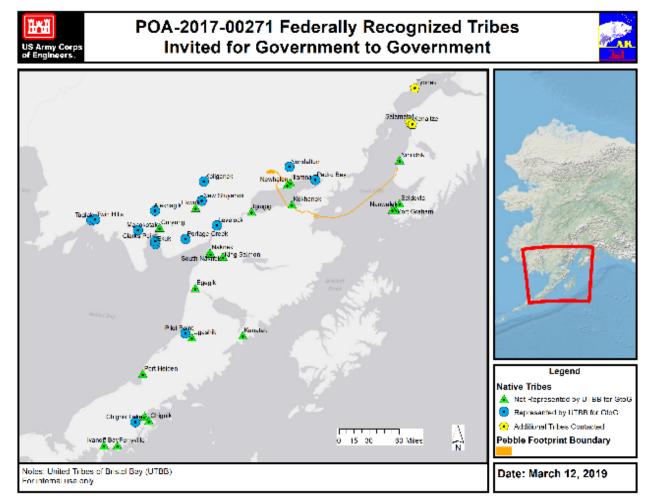
- Pre-application and pre-scoping efforts
- > Scoping
- > DEIS Availability
- Media Roundtables and other press engagements
- > Newsletters
- > Multiple avenues for submitting scoping comments and comments on the DEIS:
  - Project website (<u>www.PebbleProjectEIS.com</u>);
  - Email
  - U.S. Mail
  - Computers at hearing locations
  - Court reporter at hearings

B2 EFH Presentation April 2019



### ALASKA NATIVE TRIBES

- Pre-application outreach/questionnaire to accommodate rural preferences
- Pre-application inquiries regarding government to government consultation
- Post-application delivery of materials
- Travel to multiple communities/groups to discuss process
- 17 staff level government to government meetings
- 8 leader to leader government to government consultations (2 with UTBB representing 14 Tribes)
- Delivery of DEIS via Thumb Drive



- Inquiry for meetings while traveling for Public Hearings
- Conducting milestone webinars (2 thus far) and teleconferences (4 to date) to answer questions

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### SOCIOECONOMICS

#### Key Resource Characteristics

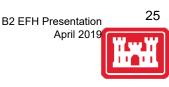
- wage/employment economy
- population trends
- community and regional infrastructure,
- housing and education

### Concerns Expressed During Scoping

- potential beneficial and adverse project effects on existing economic sectors
- continued population loss without additional regional economic activity
- potential improvements to infrastructure, services, cost of living
- impacts to government revenue

### Unique Analytical Elements

 assessed project effects on employment and income, population trends, state and local tax revenues, cost of living and regional infrastructure, and regional economy





### WILDLIFE

#### Key Resource Characteristics

- large terrestrial mammals (caribou, moose, brown and black bear, gray wolf)
- marine mammals/threatened and endangered species (Cook Inlet beluga whale, humpback whale, fin whale, Steller sea lion, northern sea otter, Steller's eider)
- bird species (raptors, waterbirds, landbirds, shorebirds)

### Concerns Expressed During Scoping

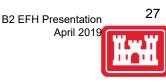
- Direct/indirect impacts on breeding, wintering, migrating, and staging of wildlife populations
- behavioral disturbance, injury and mortality, barriers to migration, unintended spills and loss/changes in wildlife habitat

#### Unique Analytical Elements

 analyzed wildlife distribution, habitat, and migratory routes for potential direct, indirect, and cumulative impacts from project components, particularly for protected species and wildlife identified in scoping, such as brown bear



### **DEVELOPMENT OF FAILURE SCENARIOS**



#### Purpose of Analysis

- proven ADNR permitting risk assessment tool used to determine the probability of potential dam failures and the severity of consequences
- determine reasonable dam failure scenarios and associated volumes of release to be modeled and analyzed for impacts in the EIS

### FMEA Execution

- conducted by a facilitator with a panel of experts
- included engineers and managers from USACE, AECOM, PLP (owner), Knight Piésold (design engineers to PLP), and ADNR Dam Safety Program

### FMEA Results

- failure scenarios selected for EIS analysis with low level of probability, a comparatively high level of consequence
- Scenarios developed for bulk tailings storage/dam, pyritic (acid generating) tailings storage, and water management pond/dam



### GEOHAZARDS

- Key Resource Characteristics
- Tectonically active region with features such as earthquakes, active faults, volcanoes
- potential for tsunamis and seiches, slope instability, liquefaction

#### Concerns Expressed During Scoping

 Potential for instability of major mine structures (including embankments), potential ferry and port facilities, and pipeline landfalls

#### > Unique Analytical Elements

- Analyzed potential seismic events and other geohazards on major mine site structures, port/ferry facilities, pipeline landfalls, and likelihood of environmental impacts
- Key independent reviews of: embankments construction materials, design, construction, seepage analysis
- Performed seismic hazard analysis, static and seismic stability analyses; analyzed stability of dock designs, and probability and effects of tsunamis and seiches



### SUBSISTENCE

- > Key Resource Characteristics
- significant contributor to household and community wellbeing, social relationships, and cultural ties
- encompasses hunting, fishing, trapping, gathering, camping, and ceremonial activities, processing, sharing, use, consumption, and barter of wild resources

#### Concerns Expressed During Scoping

- effects on availability and abundance of subsistence resources through habitat loss
- behavioral disturbance and displacement from increased noise, vehicle/aircraft/ ferry traffic, and human activity
- concerns about contamination of resources (dust, spills)
- avoidance of traditional use areas
- increased costs and time spent traveling to more distant harvest areas

#### Unique Analytical Elements

- subsistence integral to the contemporary mixed economic system in rural Alaska;
- salmon is the most important subsistence food and accounts for the majority of harvest
- extensive community data available from previous PLP studies and ADF&G



#### Key Resource Characteristics

- vegetated wetlands, ponds, lakes, rivers, and marine and estuarine waters
- special aquatic sites (wetlands, mudflats, vegetated shallows, and riffle and pool complexes)

#### Concerns Expressed During Scoping

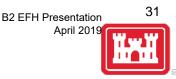
- potential direct/indirect impacts to aquatic resources
- filling of wetlands, alterations of wetlands habitat, fragmentation, and loss of wetlands habitat
- impacts from dewatering and changes to downstream habitat

#### Unique Analytical Elements

- potential direct/indirect effects to wetlands and other waters assessed by project component
- magnitude of direct impacts to wetlands and other waters assessed based on the number of acres of impacts relative to the extent of the impacted resources within a watershed, perceived regional importance of the resource
- project impacts compared to the relative proportion of common wetland types in each watershed to assess the relative magnitude/extent of impacts within an ecological context



# **CUMULATIVE IMPACTS/FUTURE PROJECTS**



#### > NEPA Guidance

- must assess potential impacts of past, present, and reasonably foreseeable future actions (RFFAs)
- typically based on documents such as existing plans, permit applications, and fiscal appropriations

#### Pebble Mine Expansion

- USACE determined that Pebble mine expansion is an RFFA for the purpose of analysis
- detailed expansion scenario developed for impact assessment

### Other Regional Mining Projects

- wide range of mineral deposits systematically assessed as RFFAs
- projects included in the Bristol Bay Watershed Study, state mineral project database