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EPA's Work in the Bristol Bay Watershed

Presentation for Office of Federal Activities

January 31, 2018

Overview

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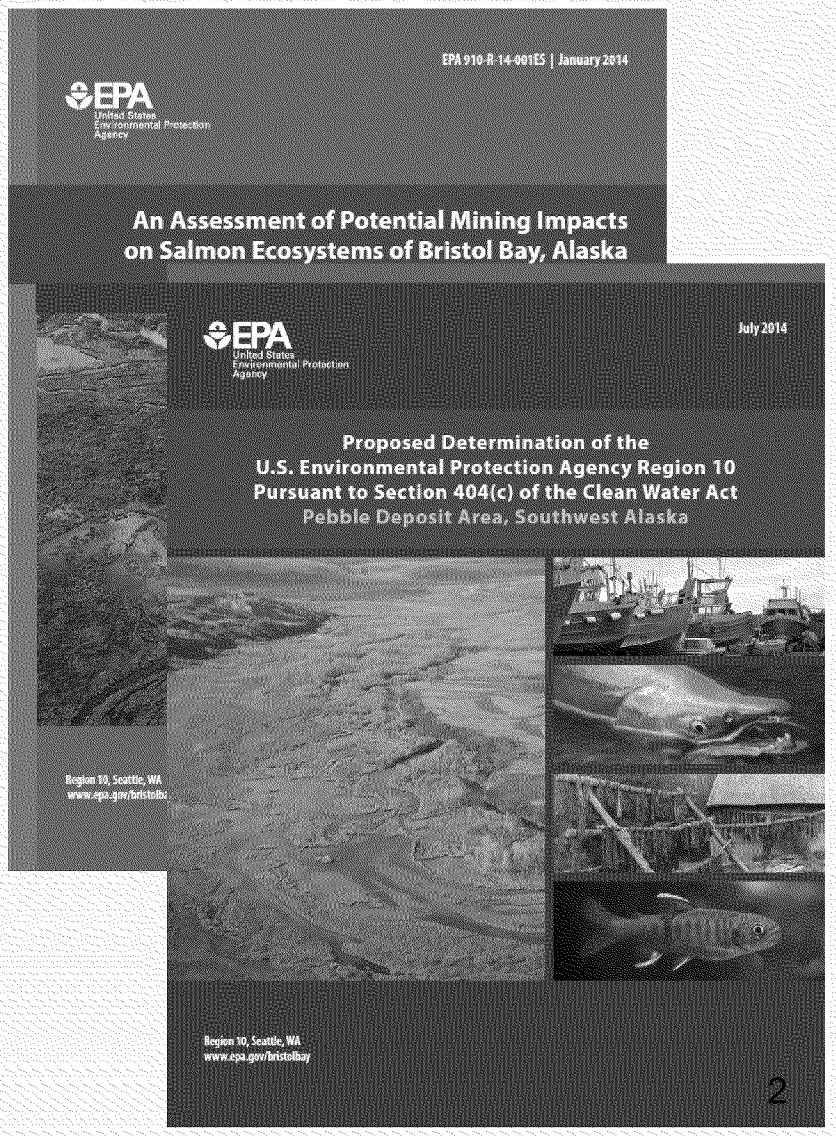
- EPA's Involvement History
- Science
- Section 404(c) Regulatory Response
- Section 404 Permitting and NEPA



Bristol Bay Watershed

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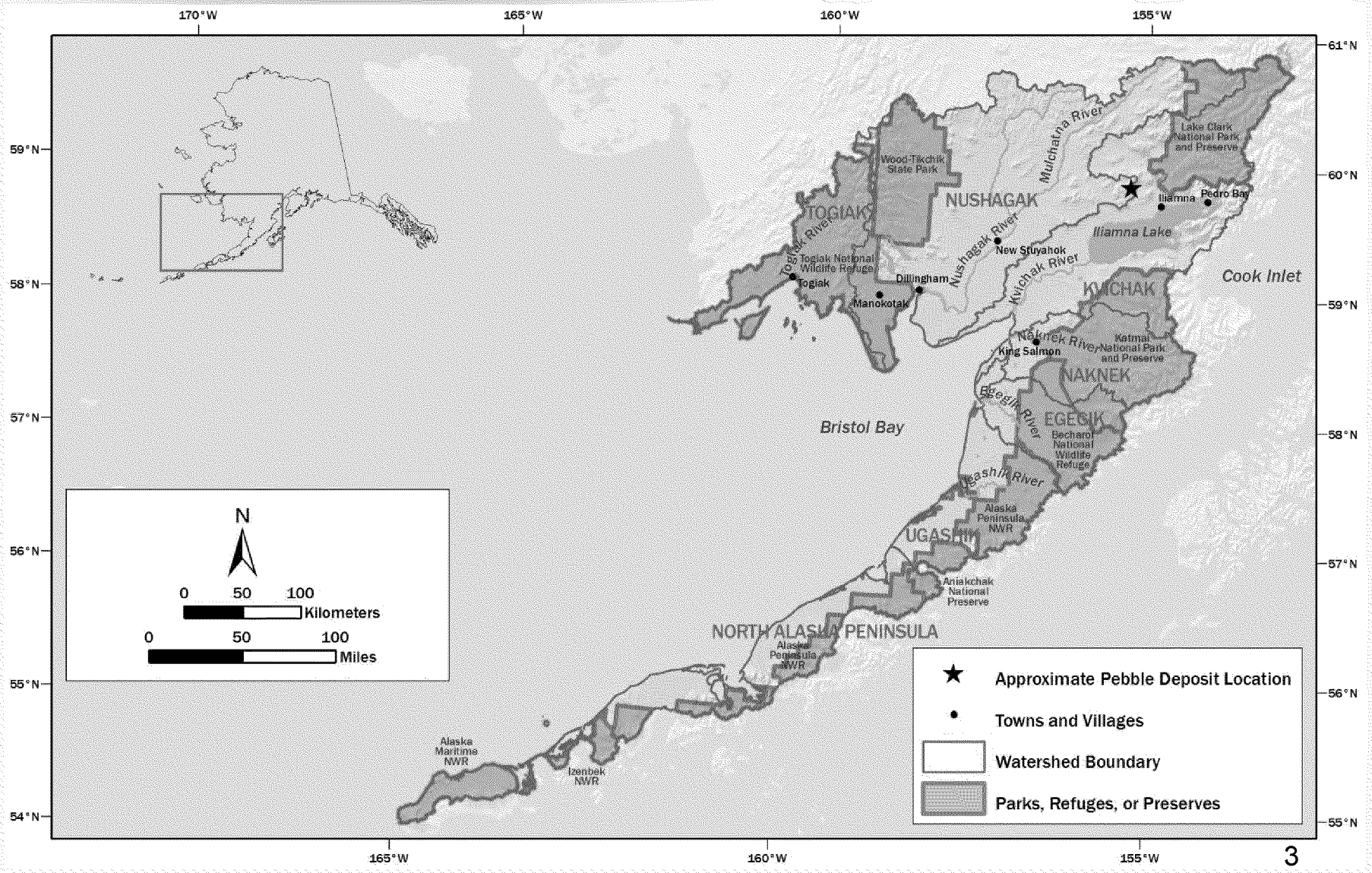

Timeline 2003 - 2014

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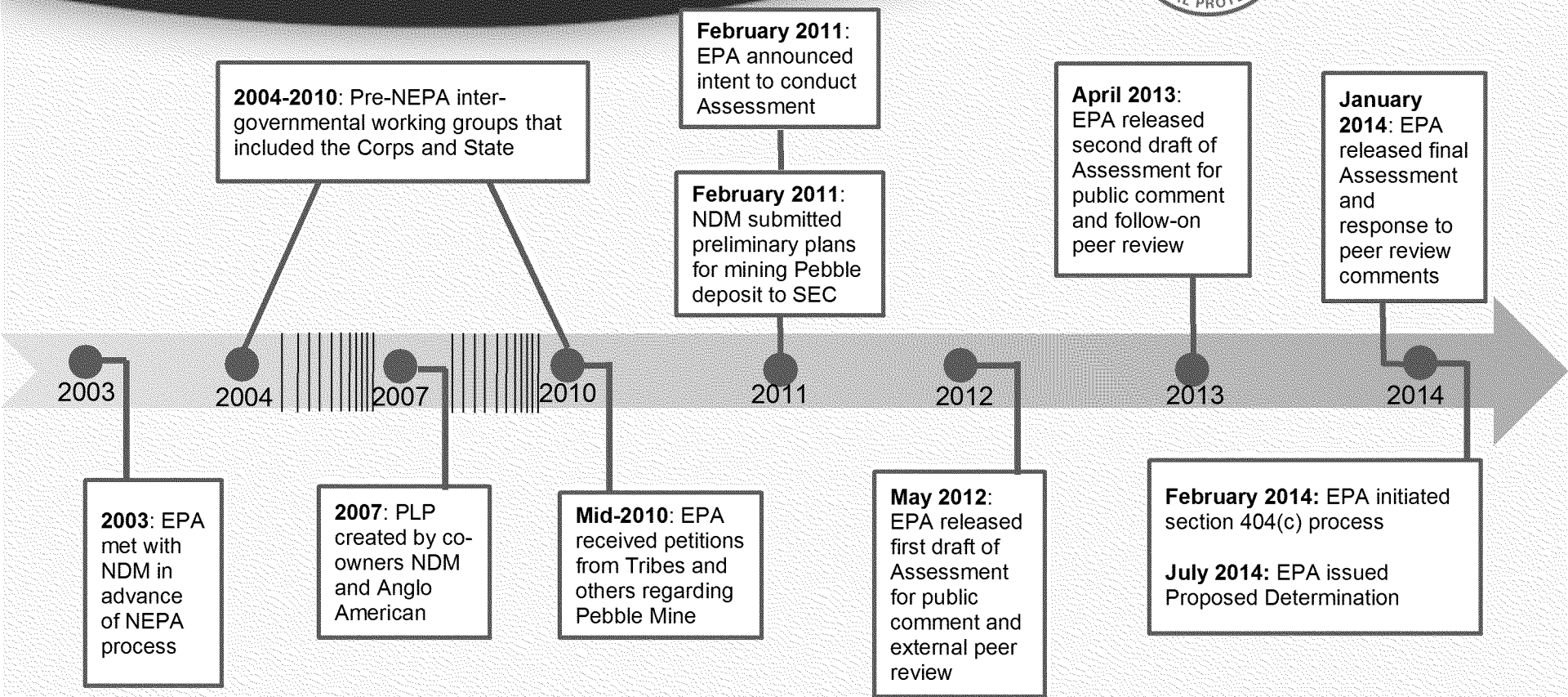

NDM = Northern Dynasty Minerals Ltd.
PLP = Pebble Limited Partnership
NEPA = National Environmental Policy Act
SEC = U.S. Securities and Exchange Commission

Timeline 2014 - Present

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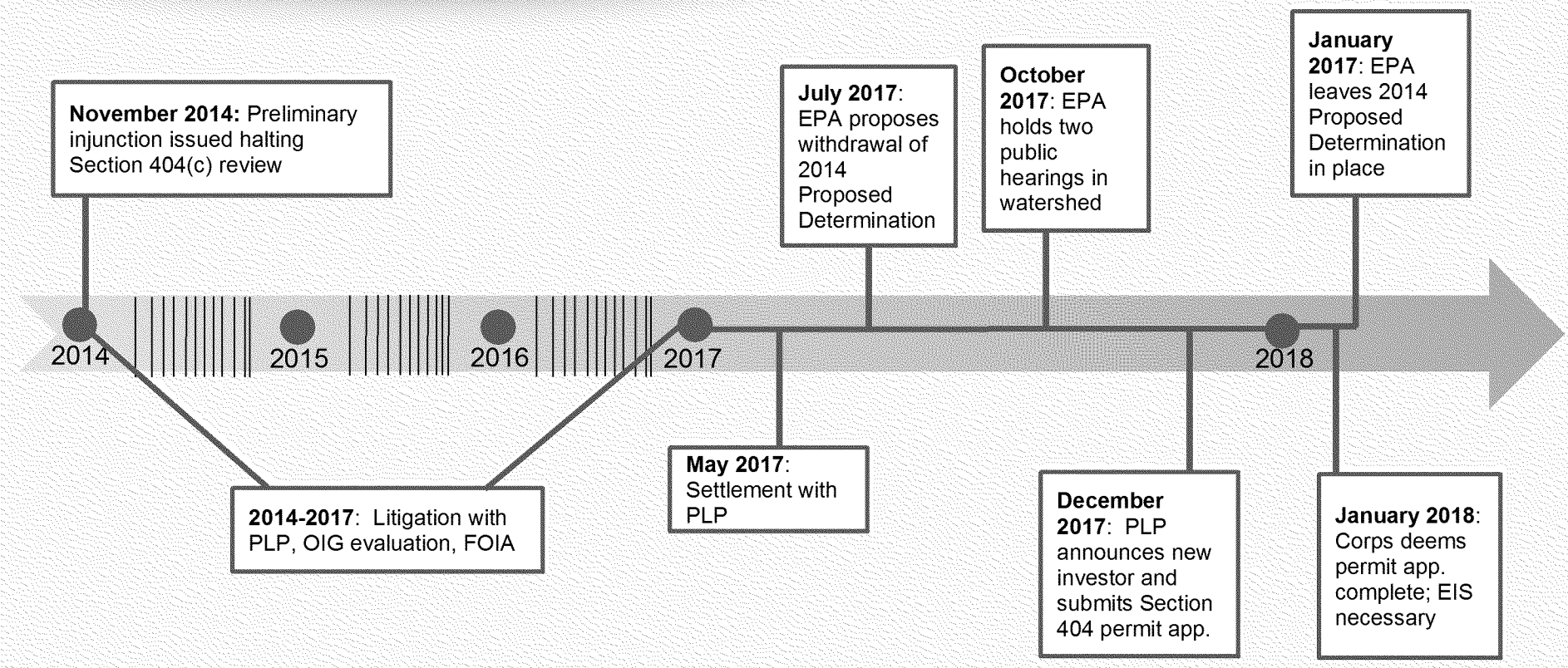

OIG = EPA Office of Inspector General
PLP = Pebble Limited Partnership
Corps = U.S. Army Corps of Engineers
EIS = Environmental Impact Statement

Bristol Bay Watershed Assessment

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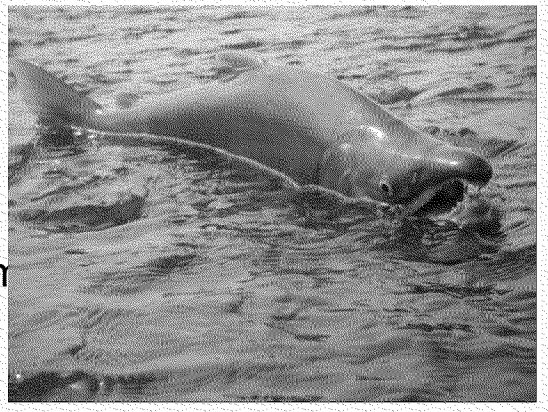
- Purpose:
  - Characterize the biological and mineral resources of the Bristol Bay watershed
  - Increase understanding of the potential impacts of large-scale mining on the region's fish resources
  - Inform future decision-making
- Scientific Ecological Risk Assessment evaluating potential impacts associated with:
  - Large-scale mine construction and operation
  - Accidents and failures
- Three-year scientific assessment effort
  - Independent external peer review
  - Stakeholder and public engagement
    - 8 public meetings
    - 2 rounds of public comment – over 1.1 million comm
  - Tribal consultations



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Bristol Bay Watershed Resources

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Biological Resources:

- Bristol Bay produces almost half of world's sockeye salmon
- Kvichak watershed world's largest producer of sockeye salmon
- Nushagak watershed frequently at or near world's largest producer of Chinook salmon

Biological Resources Support:

- 14,000 jobs, generates $480 million annually in direct economic expenditures and sales
  - Salmon fishery valued at $1.5 billion annually
- 4,000-year-old subsistence fishery for Alaska Natives

Geological Resources:

- At least 10 claims with more than minimal exploration, including Pebble.
- Pebble deposit: low-grade, with copper, gold, and molybdenum
- According to NDM, Pebble could:
  - Be largest mine of its type in North America
  - Produce 3,000 jobs in AK
  - Contribute $2.7 billion to US GDP annually
- Economics of mining the Pebble deposit are speculative
- Since 2001, four major mining companies have walked away from Pebble project

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Bristol Bay Watershed Assessment

- Mining scenarios informed by NDM plans submitted to U.S. Securities and Exchange Commission (SEC) in 2011
- Uses 3 potential stages of mine development at Pebble deposit
  - 0.25-billion-ton mine (worldwide median size porphyry copper deposit)
  - 2.0-billion-ton mine (smallest mine size proposed by NDM to SEC)
  - 6.5-billion-ton mine (largest mine size proposed by NDM to SEC)
- NDM says deposit is nearly 12 billion tons

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Bristol Bay Watershed Assessment

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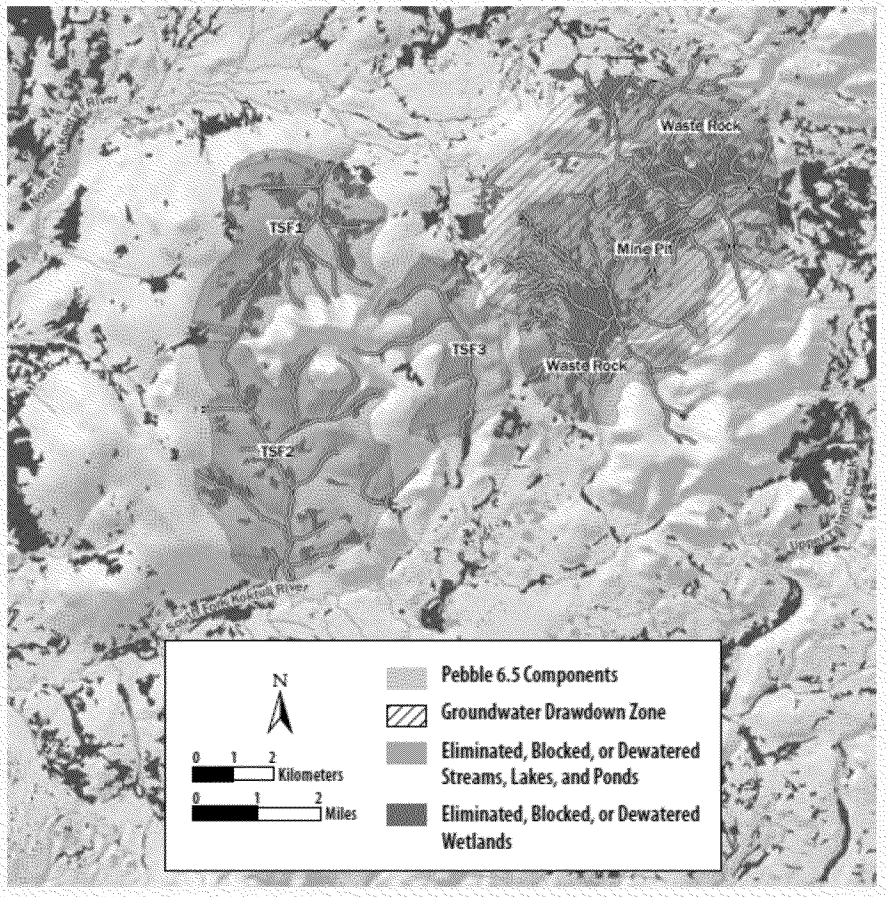
Mine Footprint Impacts:

- 24-94 miles of salmon-supporting streams destroyed
- 1,300-5,350 acres of wetlands, ponds, lakes destroyed
- 9-33 miles of salmon-supporting streams with altered streamflow likely to affect ecosystem structure and function

Other Impacts:

- Tailings dams need maintenance in perpetuity
- Routine operations and accidents would increase impacts on salmon habitat quality, both at the mining site and along the 86-mile transportation corridor.



Clean Water Act Section 404

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- §404(a) authorizes the Secretary of the Army to issue **permits**
  - For the discharge of dredged or fill material into waters of the U.S. at specified disposal sites
- §404(b) directs the Secretary of the Army to apply **environmental criteria** developed by EPA when specifying disposal sites
  - §404(b)(1) Guidelines [40 CFR Part 230]
- §404(c) authorizes EPA to prohibit, deny or restrict (withdraw) the placement of dredged or fill material at defined sites in waters of the U.S.

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Limits of Section 404(c)

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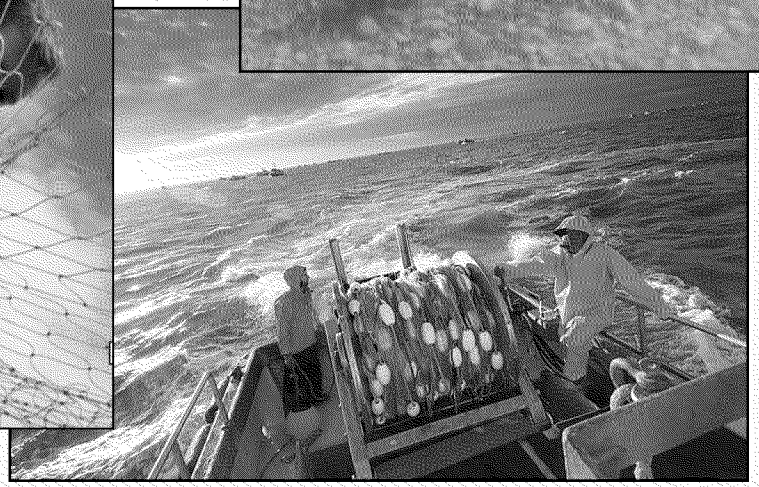
- **Whenever** it determines, after notice and opportunity for public hearing, that the discharge of such materials into such area will have an **unacceptable adverse effect(s)** on:
  - Municipal water supplies; or
  - Shellfish beds and **fishery areas**; or
  - Wildlife; or
  - Recreation areas.



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Pebble Deposit 404(c) Process

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Step

Step

Step

Step

) by EPA Assistant Administrator for Water

- 7/18/14 proposed Determination released (PD) by EPA Region 10
- NDM/MIP, and State public comments on **jion 10 – "15-day letter**
- 8/12/14 public comments on Alaska
- RD issue FD affirming proposed Determination (RD)
- >99% (86% unique) supported Proposed Determ
- >

What Are the Proposed Restrictions?

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Restrict the discharge of dredged or fill material related to mining the Pebble deposit into waters of the U.S. that would, individually or collectively, result in the following:

1. **Loss of Streams.**
   a. The loss of 5 or more linear miles of streams with documented anadromous fish occurrence; **or**
   b. The loss of 19 or more linear miles of streams where anadromous fish are not currently documented, but that are tributaries of streams with documented anadromous fish occurrence; **or**

2. **Loss of Wetlands, Lakes, and Ponds.** The loss of 1,100 or more acres of wetlands, lakes, and ponds contiguous with either streams with documented anadromous fish occurrence or tributaries of those streams; **or**

3. **Streamflow Alterations.** Streamflow alterations greater than 20% of daily flow in 9 or more linear miles of streams with documented anadromous fish occurrence

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Response to Section 404(c) Proceeding

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- Office of Inspector General (OIG) Review
  - 17-month in-depth evaluation found no evidence of bias or a pre-determined outcome
  - Possible misuse of position for retired Region 10 employee noted
- PLP broad Freedom of Information Act (FOIA) requests
  - Approximately 18,000 documents produced
- PLP filed three lawsuits in 2014
  - Administrative Procedure Act (APA) challenge to initiation of 404(c) process
  - FOIA litigation
  - Federal Advisory Committee Act (FACA) litigation
- May 2017 settlement agreement
  - Resolved FOIA and FACA litigation and PLP's outstanding FOIA requests

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Settlement Agreement

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- Key terms of the May 11, 2017 settlement agreement between PLP and EPA:
  - EPA may use its Bristol Bay Watershed Assessment without limitation
  - EPA agrees to initiate a process to propose to withdraw its 2014 Proposed Determination by July 11, 2017
  - EPA agrees not to forward a Recommended Determination (the next step in the 404(c) review process) to EPA HQ until a Final EIS is noticed for the project or May 11, 2021, whichever is earlier
  - PLP drops remaining lawsuits and fee requests against EPA and agrees to file no new FOIA requests during the 2.5- to 4-year hiatus period

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Proposal to Withdraw 2014 Proposed Determination

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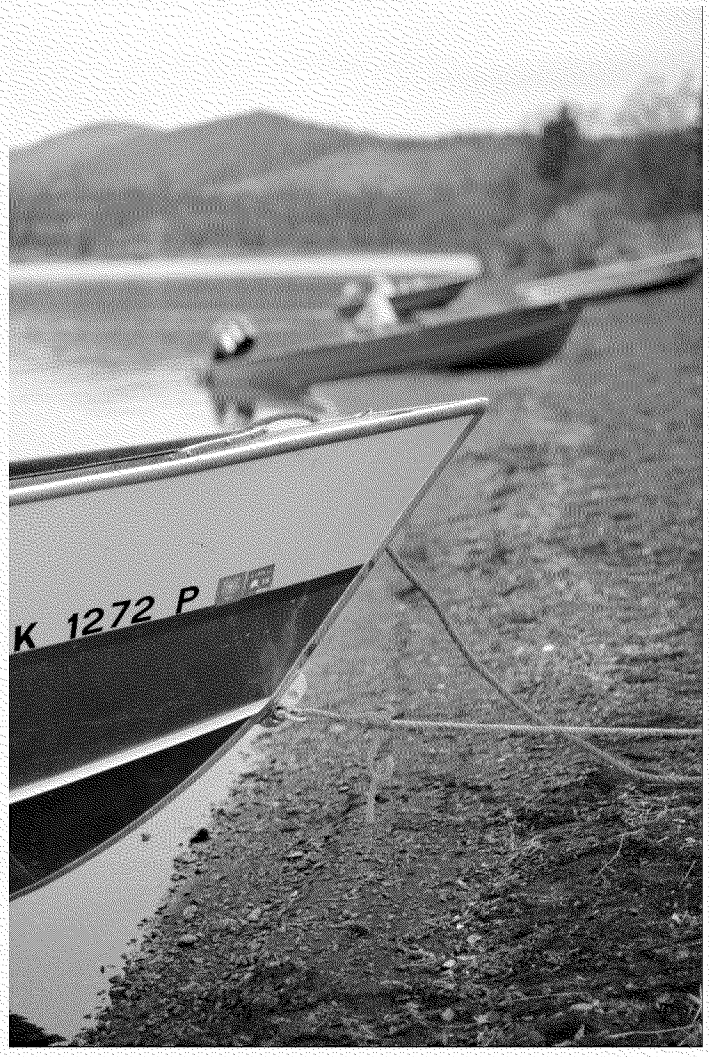
- July 2017: Withdrawal proposed based on policy rationale
  - EPA did not solicit comment on the proposed restrictions or on science or technical information underlying the Proposed Determination
- Outreach and Consultation
  - Proposal generated >1 million comments (~99% opposed)
  - 2 public hearings in watershed
  - Tribal and ANCSA Consultation
    - 16 tribal governments and 1 ANCSA Regional Corp. opposed
    - 1 tribal government and 2 ANCSA Village Corps. supported



Section 404(c) Next Steps

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- EPA decided not to withdraw and suspended Section 404(c) process pending further review

- Settlement agreement obligations
  - EPA can issue a new/modified Proposed Determination at any time
  - EPA Region 10 cannot forward a Recommended Determination to EPA HQ until May of 2021 or until a final EIS is noticed, whichever comes first

2017 Permit Application

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- PLP filed Department of Army (DA) permit application to the Corps in December 2017
  - Includes CWA 404 and RHA Section 10
  - Includes Project Description: mine, power supply, transportation
- Corps deemed application sufficient to begin NEPA

Pebble deposit area

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Project Description

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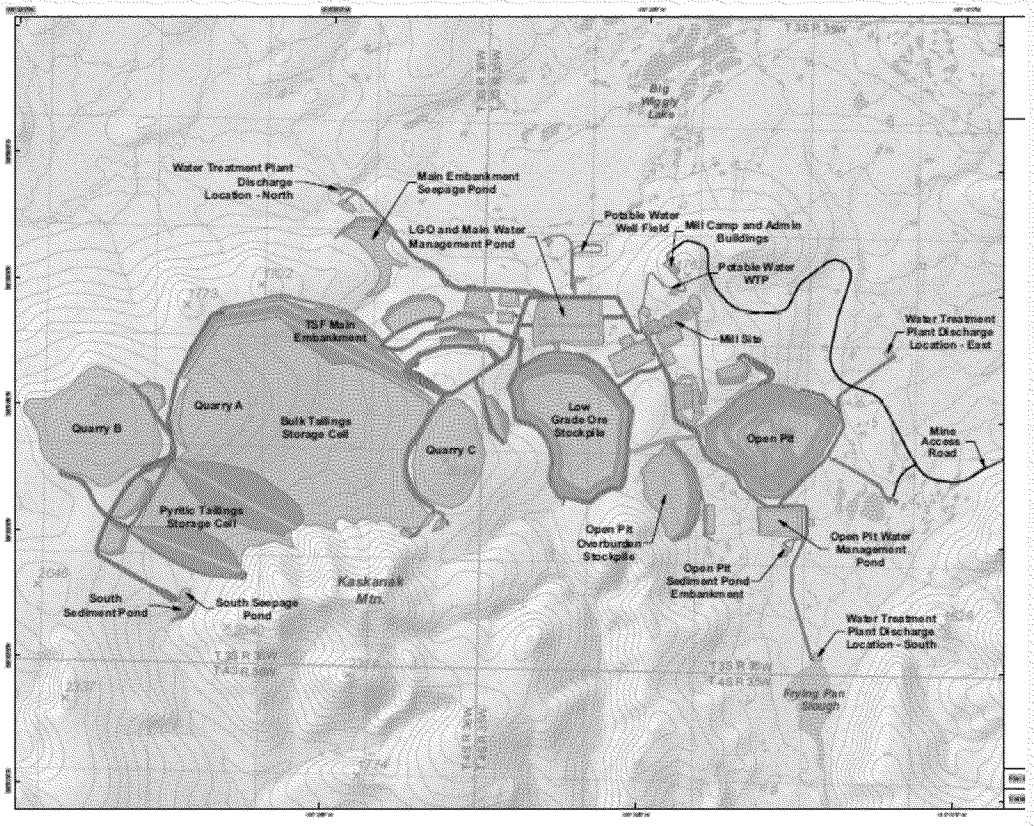
Mine Site

- 1.1 billion tons of ore mined over 20 years
- 160,000 tons/day of ore processed to produce:
  - Copper concentrate
  - Molybdenum concentrate
  - Gold via gravity separation
- Open pit mine, ore storage pile, 2 tailings impoundments
- 2 water treatment plants and 3 discharge outfalls
- Closure
  - PAG waste rock backfilled into open pit
  - Dry closure of tailings
  - Long-term water treatment



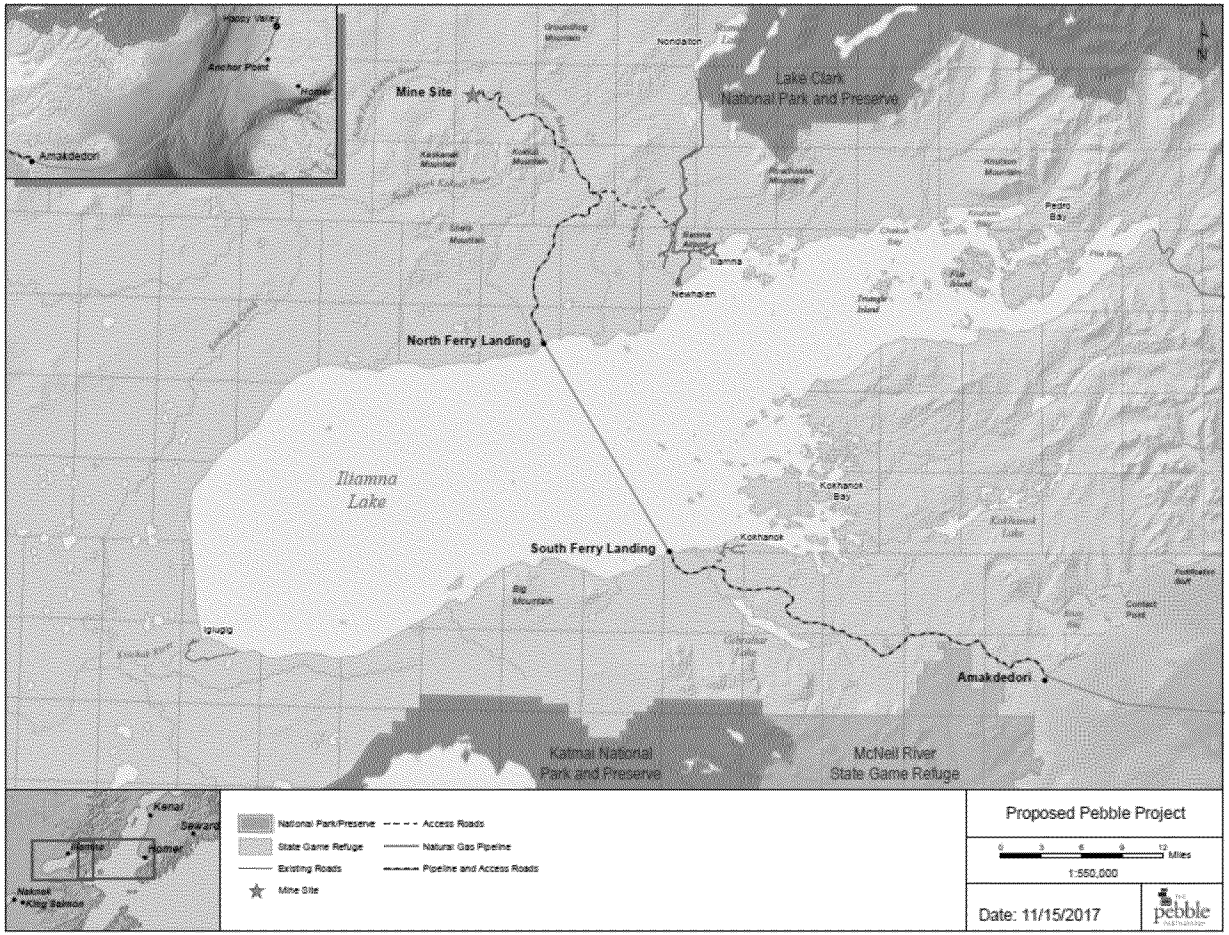
Project Description

Power

- 230 MW power plant at mine site
- 188 mile natural gas pipeline

Transportation

- 65 miles of roads
- Ferry across Lake Illiamna
- Cook Inlet port site & dredge disposal site



Project Description

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- Proposed mine is:
  - Smaller than 2011 Preliminary Assessment to SEC
  - Larger than the EPA Assessment's 0.25 billion ton mine scenario, which is the basis for the 2014 Proposed Determination

2014 Proposed Determinations
Loss of 5 or more miles of streams with anadromous fish; or
Loss of 19 or more miles of streams that are tributaries of anadromous fish streams; or
Loss of 1100 or more acres of wetlands, lakes and ponds contiguous with streams or tributaries to streams that have anadromous fish; or
Stream flow alteration > 20% of daily flow in 9 or more miles of streams with anadromous fish

2017 DA Application	
component	**wetlands filled**
Mine site	3190
Transportation (roads, ferry terminals, port)	480
Pipeline	408
TOTAL	4078

- Differences from 2011 Preliminary Assessment and EPA's Assessment:
  - Less waste rock mined
  - No cyanide leaching
  - Liners (pyritic tailings and low grade ore stockpile)
  - Advanced water treatment and "Physical Habitat Simulation System" to mitigate dewatering
  - Compensatory mitigation - TBD
- Project description could evolve during EIS and 404 review

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Initial Corps Process

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- Corps issued informational Public Notice of application (January 5, 2018)
  - Did not request public comment at this time
- Corps invited EPA to be EIS cooperating agency
  - Currently proposing to limit EPA's involvement to Section 404(b)(1) issues
  - Framework for coordination is atypical
  - EPA requested higher-level meeting to discuss
- Proposed schedule
  - Notice of Intent/EIS scoping in spring 2018
  - Final EIS by end of 2020
  - DA Application (CWA 404) public notice with Draft or Final EIS
  - FAST-41 considerations

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Potential NEPA Cooperating Agencies

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- Federal
  - DOT Pipeline and Hazardous Materials Safety Administration (TBD)
  - US Coast Guard
  - DOI Bureau of Safety and Environmental Enforcement
  - US Fish and Wildlife Service
  - National Marine Fisheries Service
  - EPA
- State
  - Alaska Department of Natural Resources Office of Project Management and Permitting coordinates state agencies (ADNR, ADEC, ADFG, SHPO)
- Local Governments
  - Lake & Peninsula Borough & Kenai Peninsula Borough
- Tribes
  - Corps sent consultation letters to 35 tribal governments
  - Corps has not yet solicited tribes interest in participating as cooperating agency

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EPA Response to Permit Application

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- EPA Role
  - NEPA
    - Potentially a cooperating agency
    - CAA 309 review of the Draft EIS
  - Clean Water Act
    - CWA 404 permit application & 404(b)(1) review
    - Oversight of State CWA 402 Alaska Pollutant Discharge Elimination System Permit
  - Clean Air Act
    - Oversight of State Air Quality Permit
- EPA has developed a cross-programmatic, multi-disciplinary team
- Next Steps
  - Resolve cooperating agency status
  - EIS scoping

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Questions

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Upper Talarik Creek, one of three streams flowing from the Pebble deposit site

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