



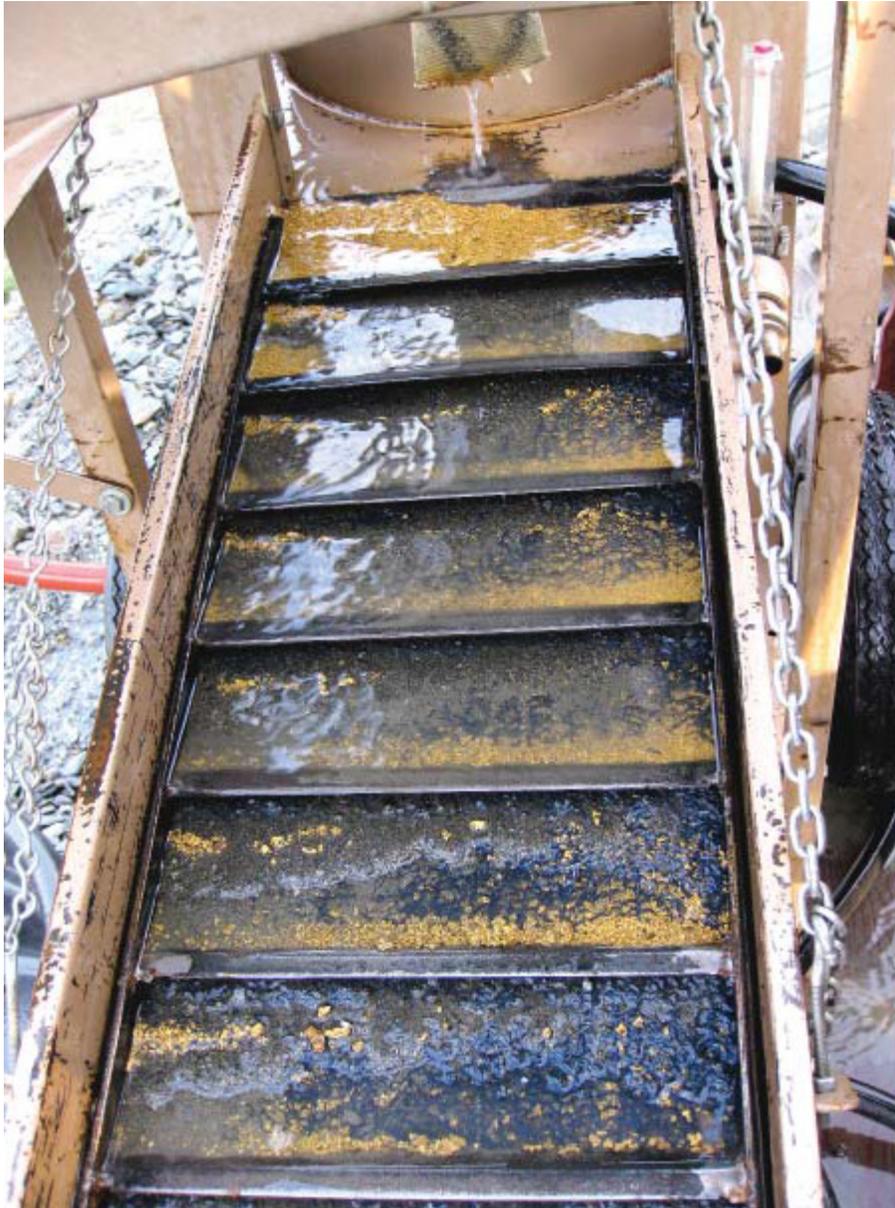
Alaska Mining

Interstate Mining Compact Commission

October 2, 2013

Senator Cathy Giessel

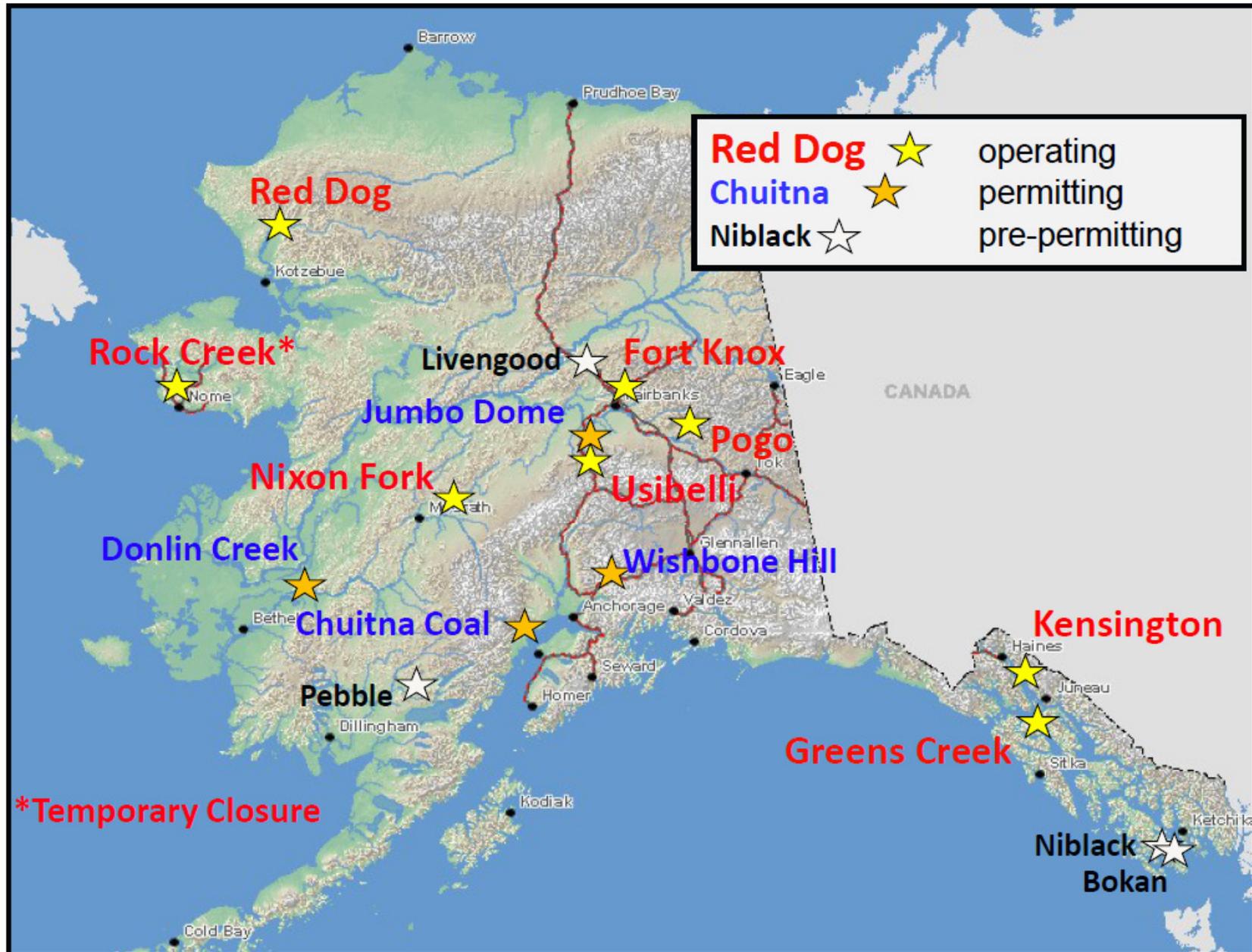
Estelle Gold Project
Yenta & McGrath Mining
District (Millrock & Teck)



Abundant coarse-grained gold and gold nuggets in a sluicebox on the Little Squaw property during 2010.

Photo courtesy of Goldrich Mining Co.

Large mining projects in Alaska



Alaska as a Storehouse

Strategic Minerals



Despite huge potential for mineral development, Alaska remains largely unexplored.

The State of Alaska Ranks in the *Top Ten in the World* for Important Minerals, Including:

Coal: 17% of the world's coal; *2nd most in the world*

Copper: 6% of the world's copper; *3rd most in the world*

Lead: 2% of the world's lead; *6th most in the world*

Gold: 3% of the world's gold; *7th most in the world*

Zinc: 3% of the world's zinc; *8th most in the world*

Silver: 2% of the world's silver; *8th most in the world*

USGS estimates

According to the USGS, Alaska has more than 70 occurrences of Rare Earth Elements (REE), including at the Bokan Mountain prospect in Southeast Alaska.

Alaska Mining Update

Recent Mining Activity



In 2011, the gross mineral production value from Alaska totaled \$3.8 billion, up 16% since 2010.

Mineral ore production had an export value of \$1.8 billion in 2011, nearly 40% of Alaska's total exports.

• Producing Mines in Alaska

- **Red Dog:** one of the world's largest zinc mines, produced over 555k tons of zinc and 78k tons of lead in 2011
- **Greens Creek:** among the world's top 10 silver mines, produced over 9.48 million ounces of silver, 56k ounces of gold, and 73k tons of zinc in 2011
- **Pogo:** produced 356k ounces of gold in 2011
- **Fort Knox:** produced 289.8k ounces of gold in 2011
- **Usibelli:** produced a record 2.2 million tons of low sulfur coal in 2011, exporting half of its production
- **Nixon Fork:** gold and copper mine re-opened in 2011 and still in pre-commercial production phases
- **Kensington:** 2011 was first year of production for this new gold mine—produced 88,420 ounces of gold



Greens Creek Mine (Hecla)

**Kensington Mine, Coeur,
Southeast Alaska**

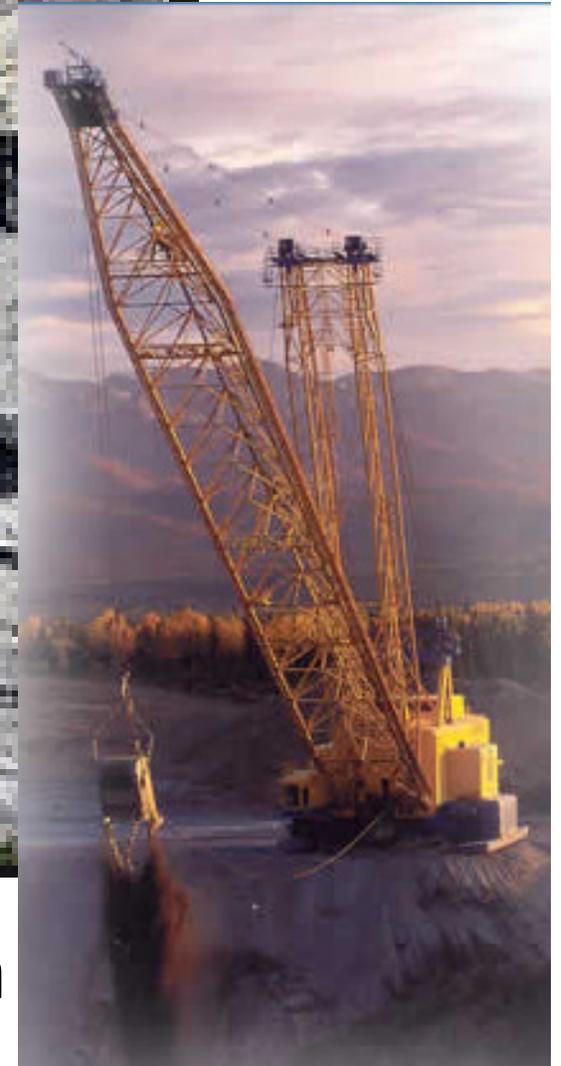




**Nixon Fork Mine,
Fire River Gold,
Interior Alaska**

**Pogo Mine, Sumitomo,
Interior Alaska**





Usibelli Coal Mine, Interior Alaska

Red Dog Mine



Strategic Mineral Development is
Critical for Sustainable Economies





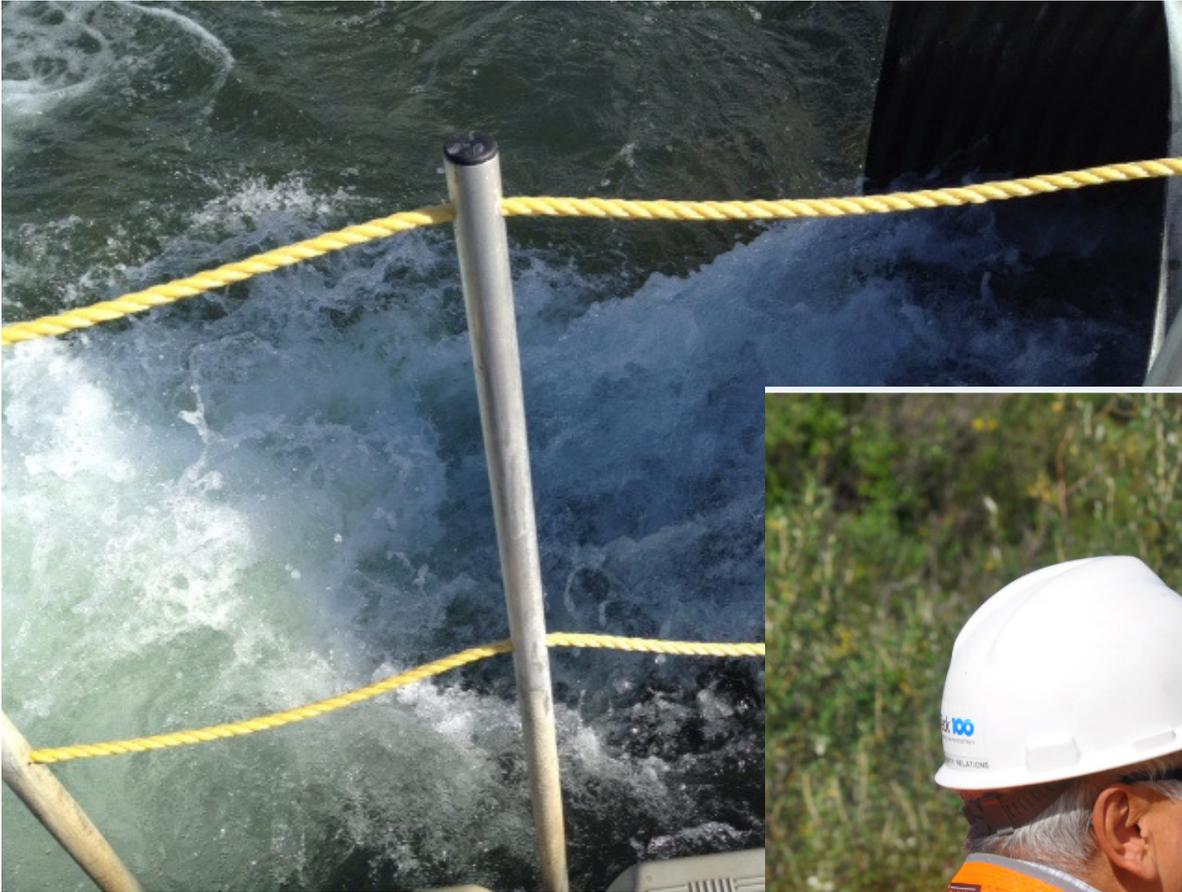


MIDDLE FORK RED DOG CREEK

BEFORE
MINING

AFTER
MINING







A Partnership between our land



...and our People.



Alaska Mining Update

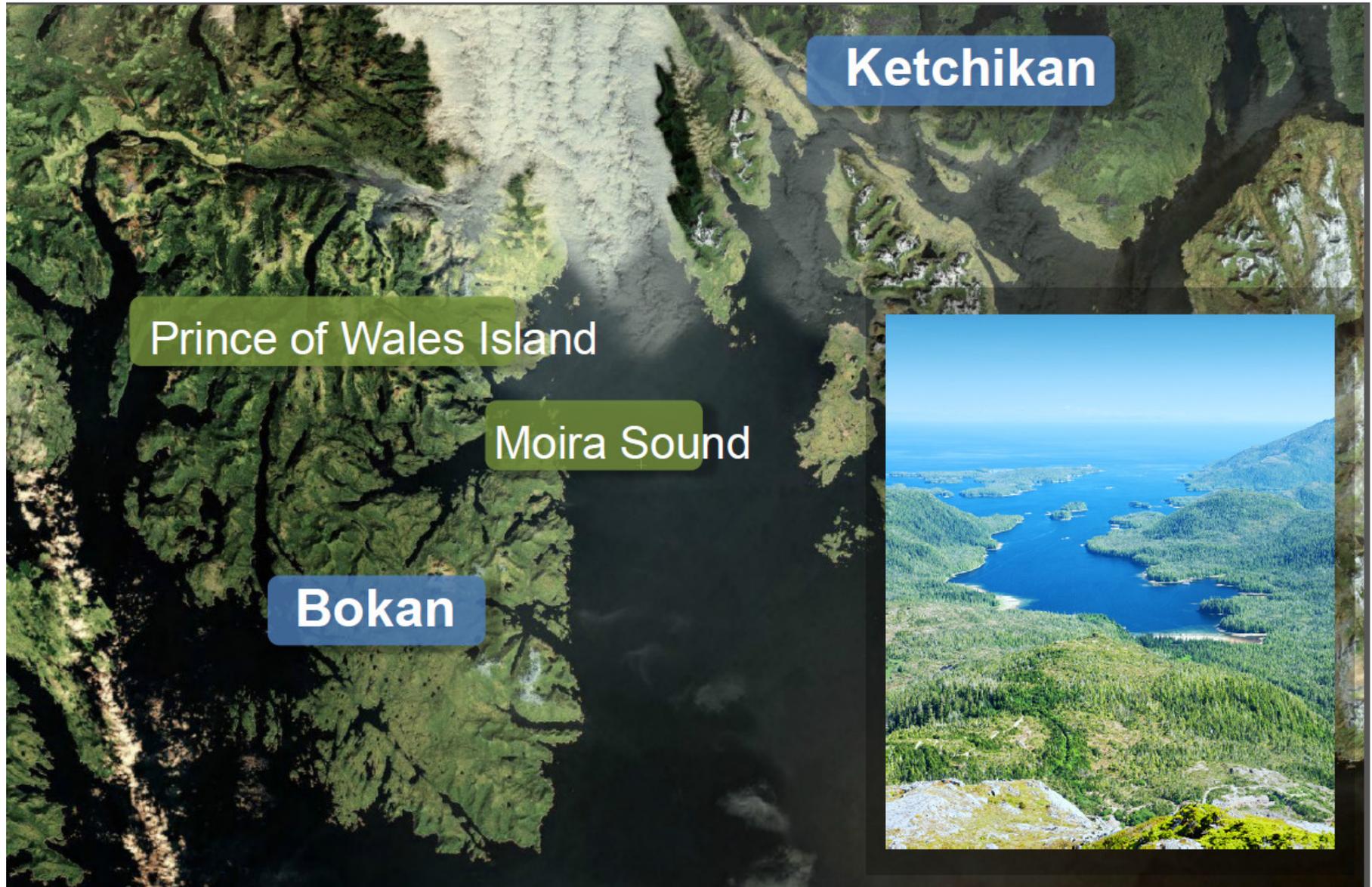
Recent Mining Activity



In 2011, mineral exploration investment in Alaska totaled \$365 million - accounting for about one-third of the total spent on exploration in the U.S.

- **Advanced exploration projects include:**
 - *Pebble:* ~ 80.6 billion pounds of copper, 107.4 million ounces of gold, and 5.6 billion pounds of molybdenum
 - *Bokan Mountain:* enriched in yttrium, dysprosium, and critical heavy Rare Earth Elements
 - *Donlin:* ~ 42.3 million ounces of gold
 - *Money Knob:* ~20.6 million ounces of gold
 - *Niblack:* ~7.3 million tons of polymetallic (copper, gold, silver, and zinc) volcanogenic massive sulfide project
- 30 exploration projects spent more than \$1 million each in 2011
- \$2.8 billion has been spent on mineral exploration in Alaska since 1981

Rare Earth Elements – Bokan Mountain, Ucore





A series of REE-bearing veins and pegmatite dikes at the Bokan Mountain property.

Photo provided by Ucore Rare Metals Inc.



**Donlin Creek, Southwest
Alaska
Land owned by Native
Corporations –
Calista & Kuskokwim
Royalties 7(i), 7(j)**



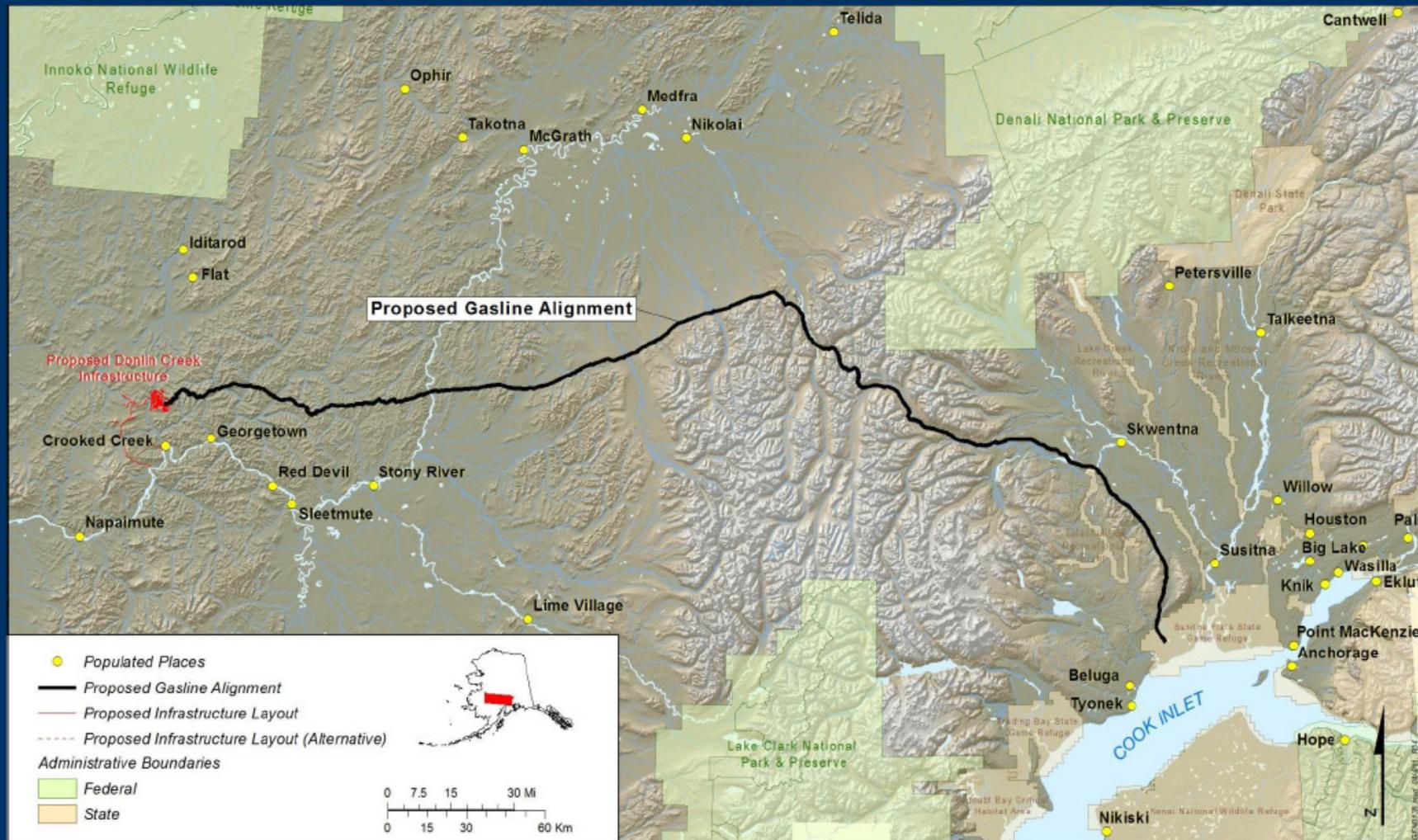
DONLIN GOLD



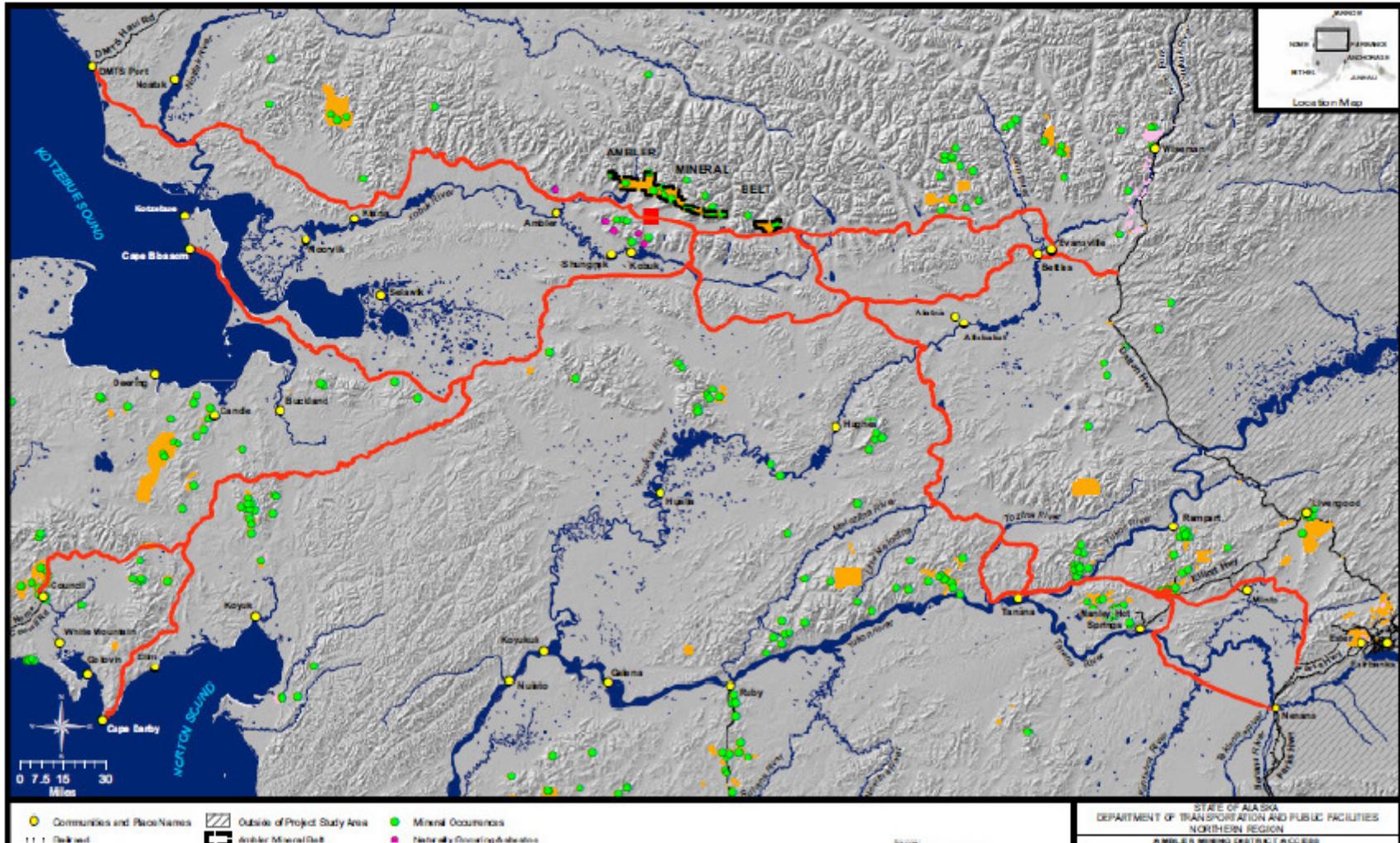
~40 million oz AU
315 mile gas pipeline (\$1B)
4 year permit anticipated
\$7 B total cost
90% local hire
****5% turnover****

2013 Employer of the Year
National Assoc of State
Workforce Agencies

Proposed Natural Gas Pipeline Route



ROADS TO RESOURCES: AMBLER MINING DISTRICT ACCESS





Bornite - August 2011

RECLAMATION

Poker Flats



July 2003



July 2012

9 Years
Later

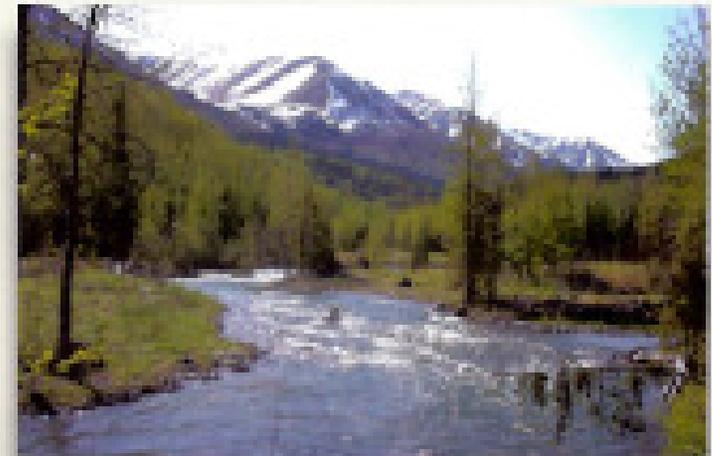


Usibelli Coal Mine, Reclamation



Straight entrenched channel before restoration

The Resurrection Creek Restoration Project returned a 1 mile stretch of creek and floodplain that were severely impacted by mining to an area "displaying all the characteristics of a naturally functioning, self-maintaining ecosystem." (USDA 2007)



Meandering stream channel and floodplain in August, 2011: 5+ years after construction

1981 Bulk Coal Sample Test Pit Chuitna Coal Project



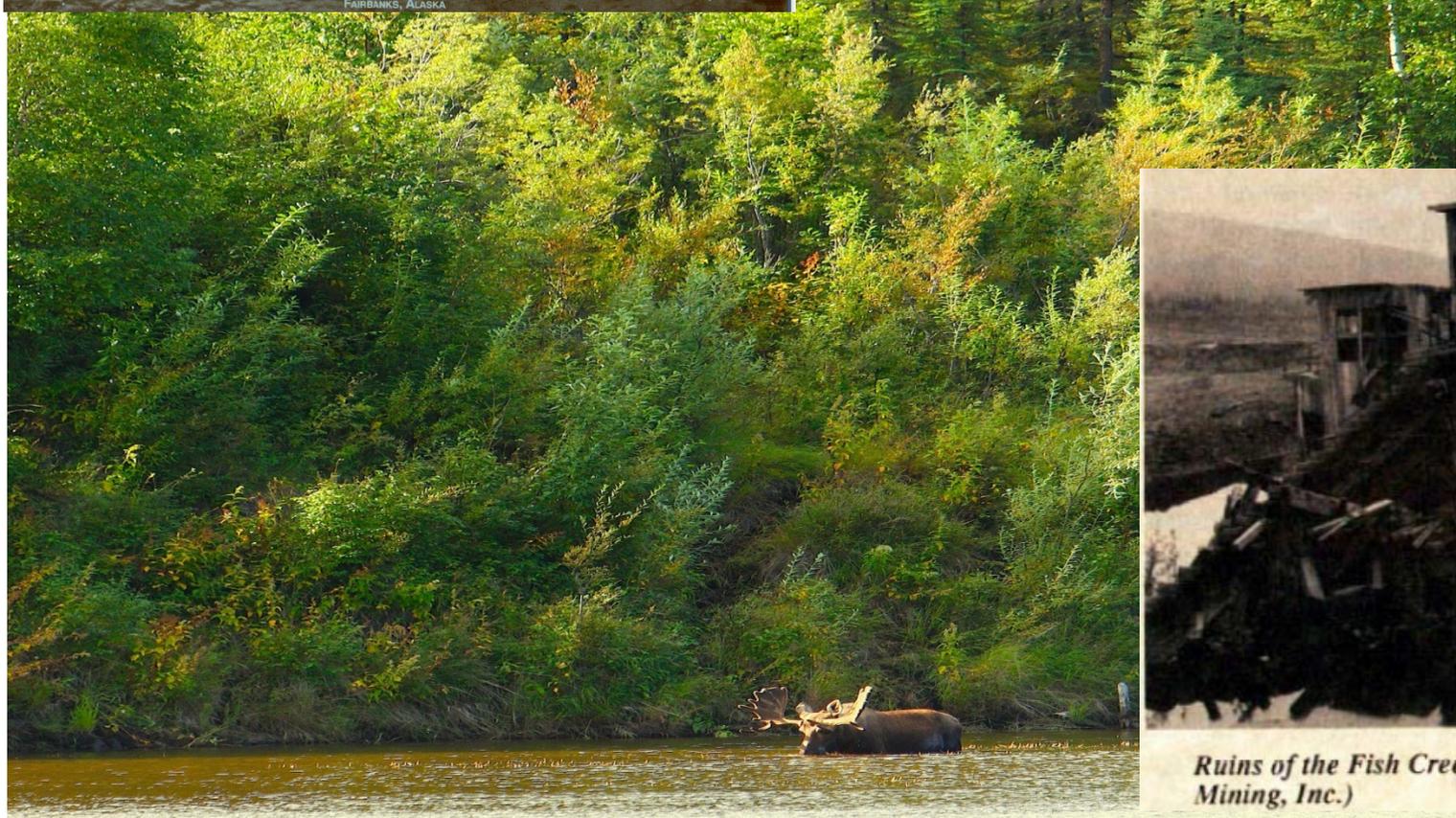
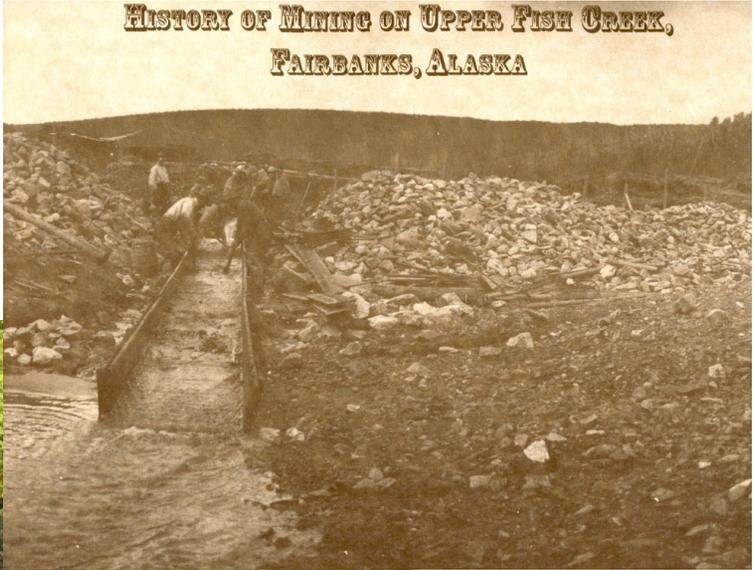
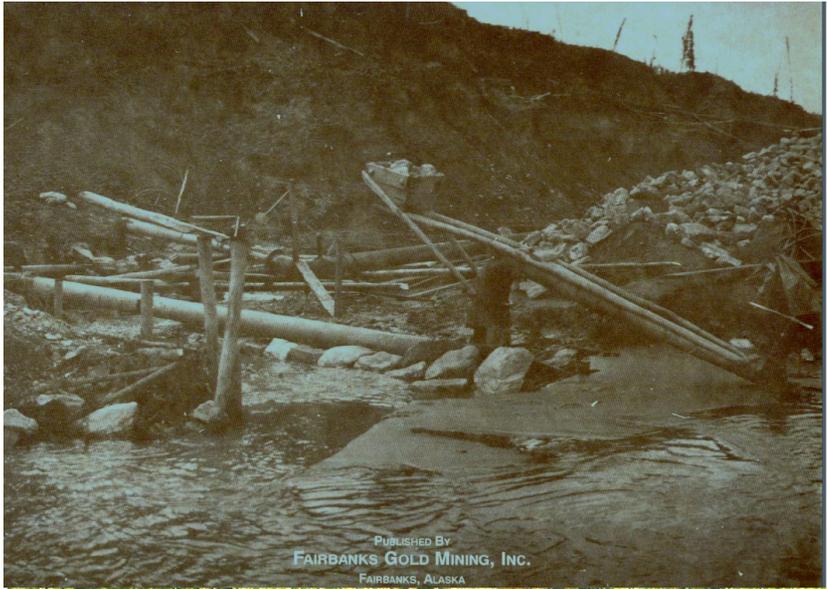
1981: during construction



1995: showing 14 years of
vegetation and tree growth



2010: showing 29 years of
vegetation and tree growth



True North Reclamation





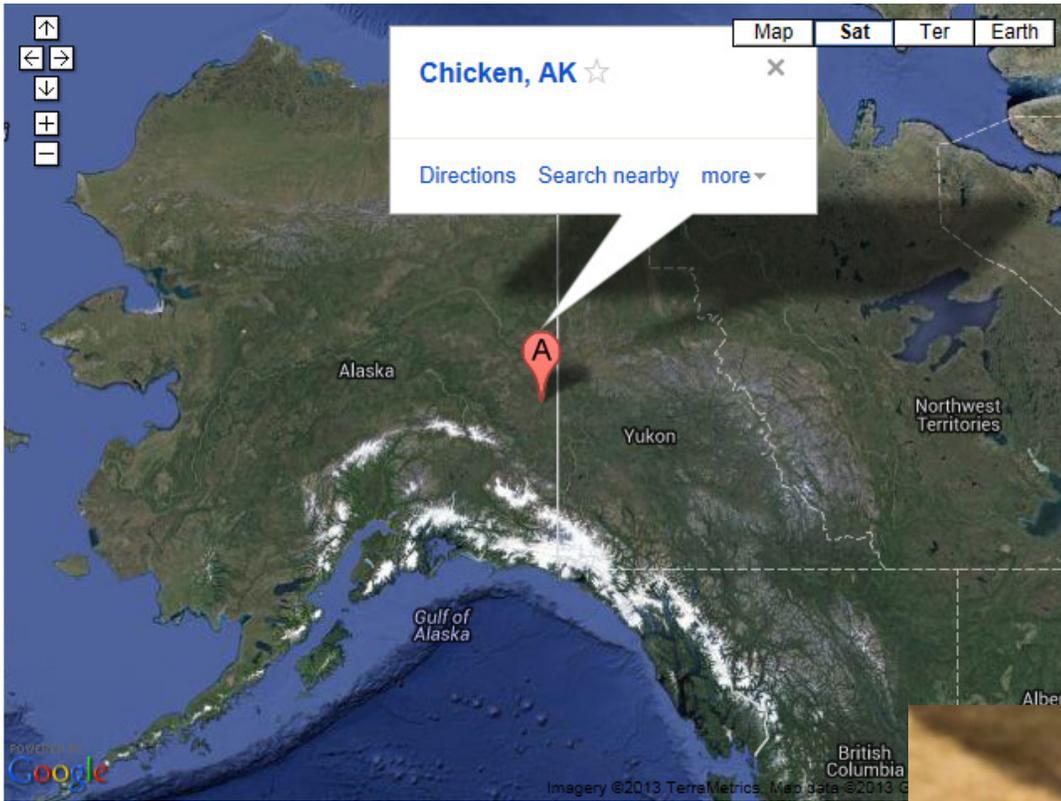
RED DOG MINE RECLAMATION

FEDERAL OVER-REACH

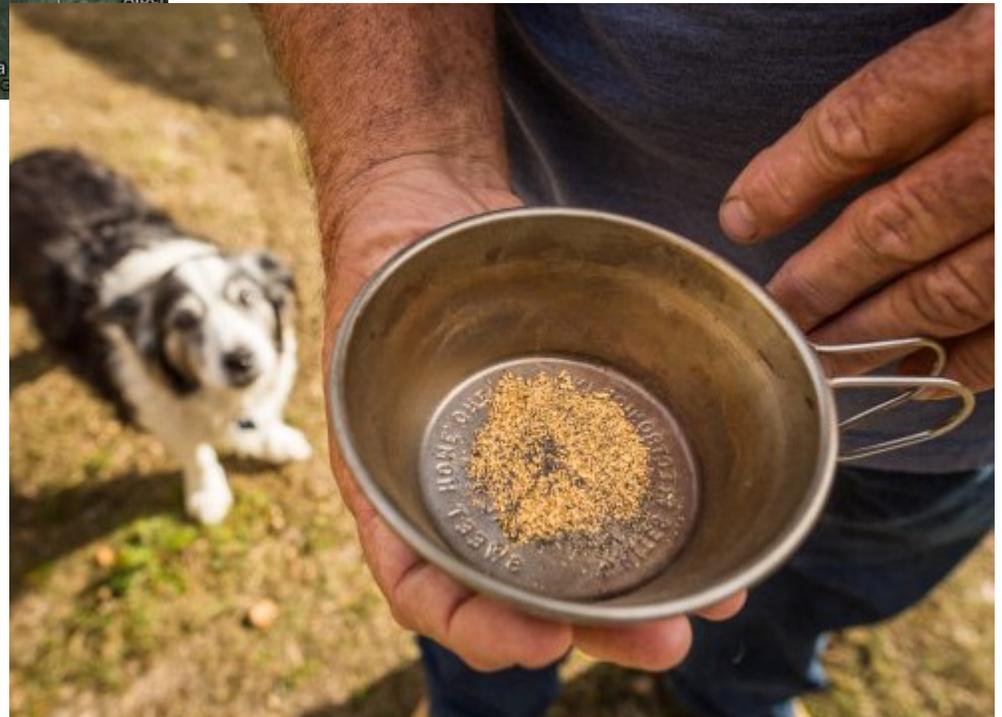
40-Mile Mining District

- **Aug. 28, 2013**
- **Clean Water Act criminal investigation of 30 placer sites**
- **EPA**
Alaska Environmental Crimes Unit
- **With BLM agents**





**Agents wearing POLICE
bullet-proof vests,
armed,
on ATVs**





**No citations or closures.
Citations could come
in next 1-2 years.**





Governor began investigation





Sept. 14, Community meeting

October 10

Congressman Young hearing.

Mining News: Cops arbitrarily raid Fortymile placers.

- “Alaskans and all Americans are entitled to have those who enforce the Clean Water Act and other environmental statutes, publicly demonstrate that they also have clean hands.” **By J.P. Tangen, attorney (member of AMA)**
- <http://www.petroleumnews.com/pnfriends/16551194.shtml>
- Sept. 29, 2013

EPA
Waters of US
Connectivity Study

**“Connectivity of Streams and
Wetlands to Downstream Waters”**

**EPA STARTS REVIEW OF
CONNECTIVITY STUDY TO JUSTIFY
WATERS OF THE US EXPANSION**

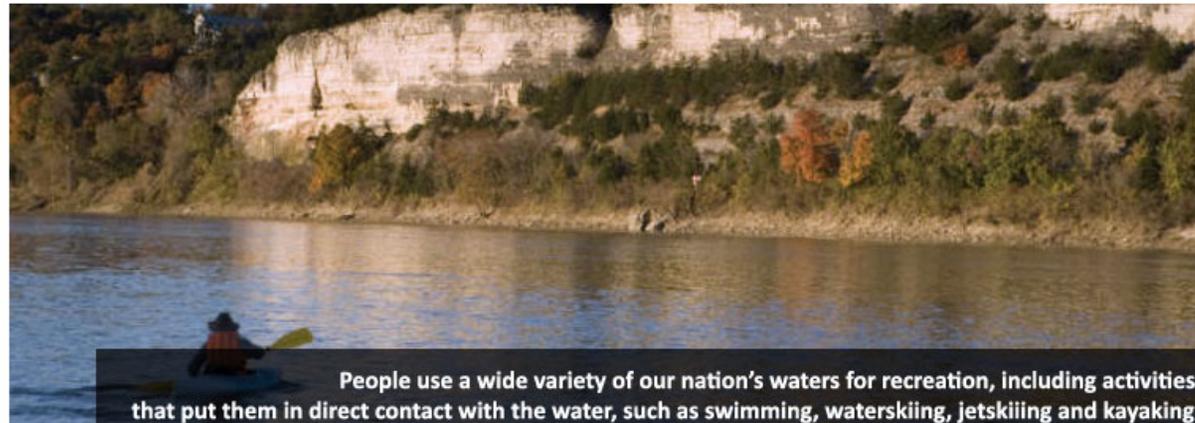
Water: Wetlands

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- Water Infrastructure
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You are here: Water » Laws & Regulations » Policy & Guidance » Wetlands » Clean Water Act Definition of "Waters of the United States"

Clean Water Act Definition of "Waters of the United States"



Clean water is the nation's most valuable natural resource and is relied on for drinking, recreation, manufacturing, energy development, agriculture, commercial fishing, tourism, and many other purposes that are essential to public health and the economy.

You will need Adobe Reader to view some of the files on this page. See EPA's PDF page to learn more.

Since 1972, the Clean Water Act has protected our health and environment by reducing the pollution in streams, lakes, rivers, wetlands and other waterways. But over the past decade, interpretations of Supreme Court rulings have removed some waters from federal protection, and caused confusion about which waters and wetlands remain protected.

EPA and the U.S. Army Corps of Engineers have sent a draft rule to clarify the jurisdiction of the Clean Water Act to the Office of Management and Budget for interagency review. The proposed rule will provide greater consistency, certainty, and predictability nationwide by providing clarity in determining where the Clean Water Act applies. These improvements are necessary to reduce costs and minimize delays in the permit process and protect waters that are vital to public health, the environment and economy. The process for making these improvements will be transparent, based on the best available science, consistent with the law, and include the opportunity for public input. EPA and the Corps of Engineers have received requests for a rulemaking from members of Congress, state and local officials, industry, agriculture, environmental groups, and the public.

This draft rule takes into consideration the latest peer-reviewed science reflected in a draft science report titled: *Connectivity of Streams and Wetlands to Downstream Waters*, which presents a review and synthesis of more than 1,000 pieces of relevant peer reviewed scientific literature. EPA's independent Science Advisory Board is soliciting public comment and will hold a public peer review meeting later this year.

Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (External Review Draft)

Notice

EPA is announcing the release of the report, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (External Review Draft)*, for public review and comment as announced in a [August 24, 2013 Federal Register Notice](#).

Report Information

The Environmental Protection Agency - through the independent Scientific Advisory Board (SAB) - is soliciting public comment on a new draft science report titled: *Connectivity of Streams and Wetlands to Downstream Waters*. A public docket has been opened to receive comments and those comments received by November 6, 2013, will be provided to the SAB Panel for its consideration in advance of their December 16- 18, 2013 meeting. Comments received after November 6, 2013, will be marked late and cannot be guaranteed to be provided to the Panel in advance of their meeting.

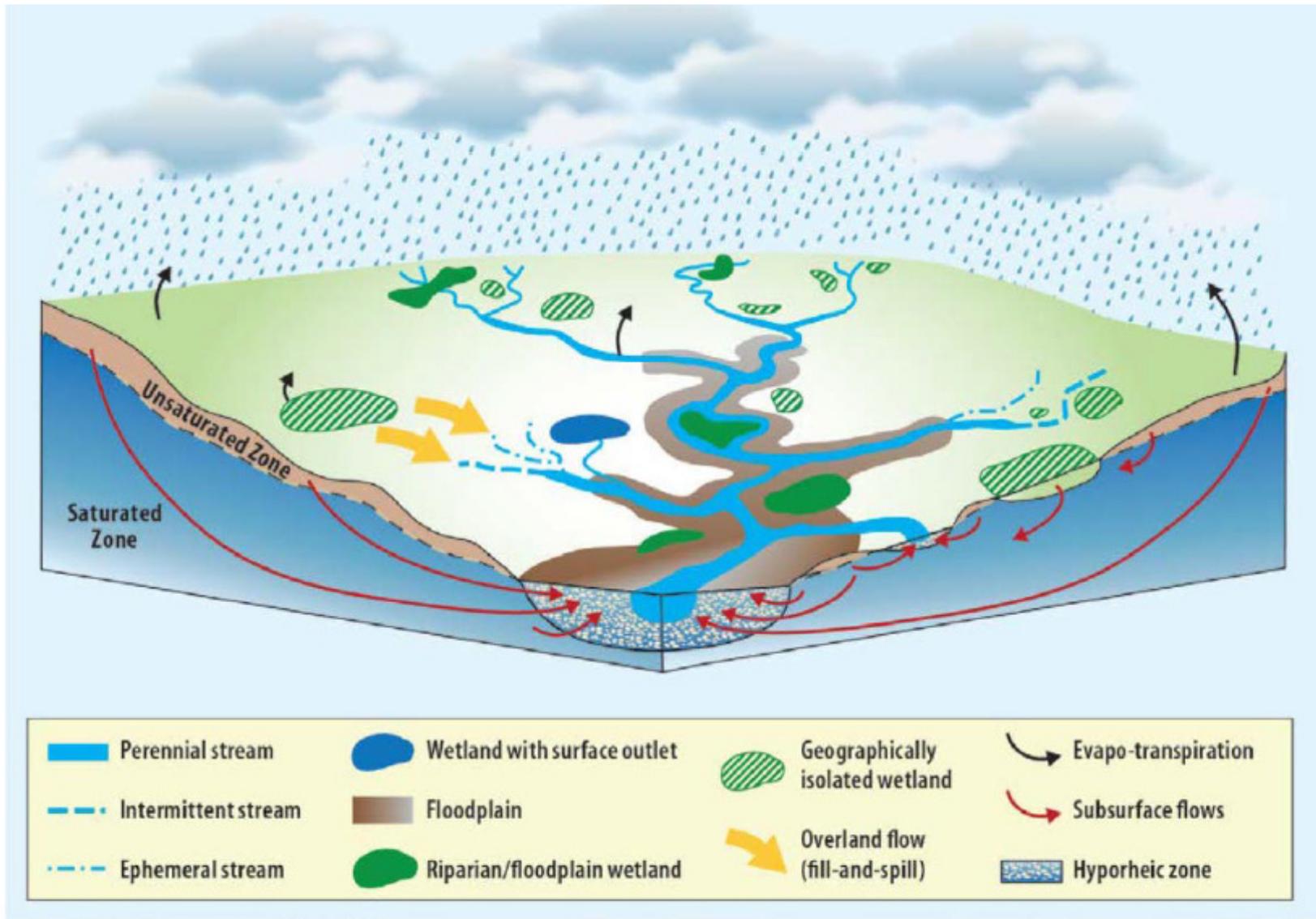
This draft science report presents a review and synthesis of relevant peer reviewed scientific literature that will inform an upcoming joint USEPA/ Army Corps of Engineers rulemaking to enhance protection of the chemical, physical, and biological integrity of our nation's waters by clarifying Clean Water Act (CWA) jurisdiction. Recent decisions of the Supreme Court have underscored the need for EPA and the public to better understand the connectivity or isolation of streams and wetlands relative to larger water bodies such as rivers, lakes, estuaries, and oceans, and to use that understanding to underpin regulatory actions and increase certainty among various CWA stakeholders. This report, when finalized, will provide the scientific basis needed to clarify CWA jurisdiction, including a description of the factors that influence connectivity and the mechanisms by which connected waters affect downstream waters.

This draft science report represents the state-of-the-science on the connectivity and isolation of waters in the United States. It makes three main initial conclusions, summarized below, that are drawn from a broad range of peer reviewed scientific literature.

- Streams, regardless of their size or how frequently they flow, are connected to and have important effects on downstream waters. These streams supply most of the water in rivers, transport sediment and organic matter, provide habitat for many species, and take up or change nutrients that could otherwise impair downstream waters.
- Wetlands and open-waters in floodplains of streams and rivers and in riparian areas (transition areas between terrestrial and aquatic ecosystems) are integrated with streams and rivers. They strongly influence downstream waters by affecting the flow of water, trapping and reducing nonpoint source pollution, and exchanging biological species.

<http://www.vnf.com/news-alerts-876.html>

- ***Initial Conclusions.*** The Draft Study reaches three initial conclusions, all of which imply that the agencies' proposed rule is likely to **expand the scope of CWA jurisdiction**. The Draft Study concludes:
 - **(1) “[s]treams, regardless of their size or how frequently they flow, are connected to and have important effects on downstream waters;”**
 - **(2) “wetlands and open-waters in floodplains of streams and rivers and in riparian areas are integrated with streams and rivers;” and**
 - **(3) there is insufficient information to determine the role isolated wetlands and open-waters play in the connectivity of downstream waters.**



SOURCE: Draft Study at 1-1.

The Draft Study includes a helpful visual aid, which demonstrates the connectivity between various types of water bodies.

<http://insideepa.com/201306242438571/EPA-Daily-News/Daily-News/industry-fears-epa-connectivity-study-could-aid-cwa-jurisdictional-findings.html>

The study has long been expected to inform the Obama administration's pending policies for determining when isolated wetlands and other marginal waters are subject to the law's requirements in light of Supreme Court rulings that created uncertainty about what tests regulators use to make their determinations.

The study is expected to provide scientific justification for the administration's interpretation of one of the high court's rulings, its split decision in *Rapanos. v. United States*. There, Justice Anthony Kennedy held that waters sharing a "significant nexus" with jurisdictional waters can be covered under the CWA while Justice Antonin Scalia wrote that only waters with a "continuous surface connection" to jurisdictional waters are subject to regulation.

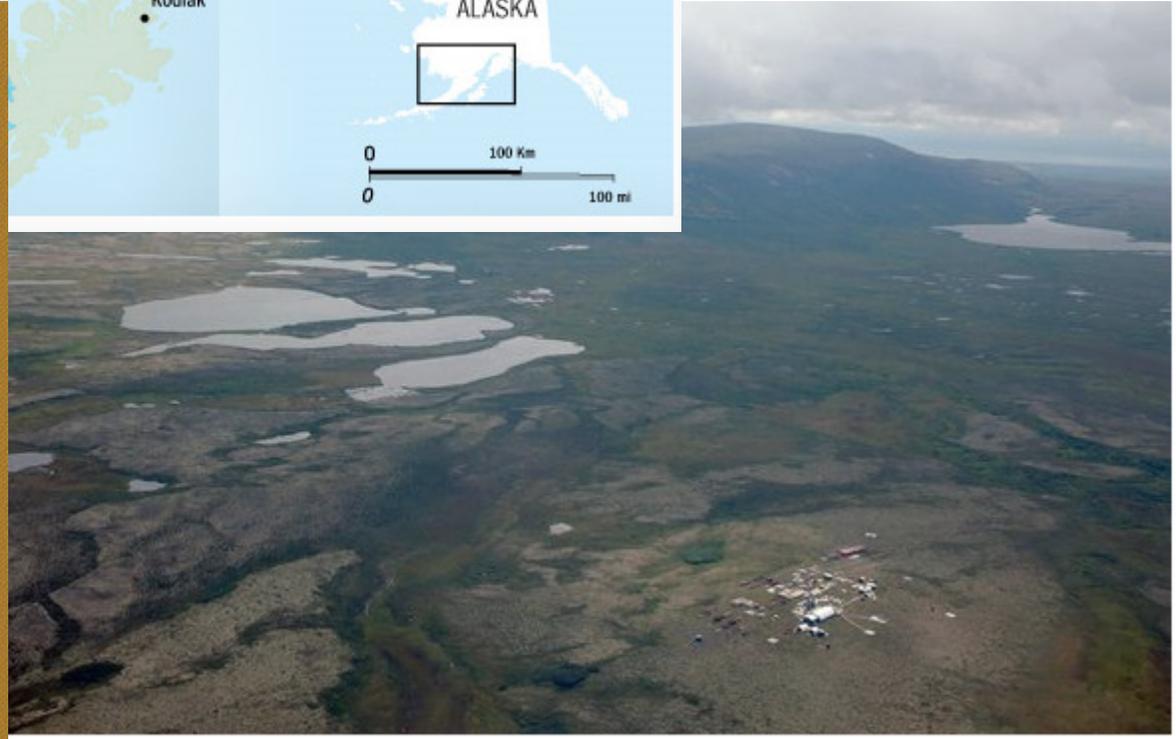
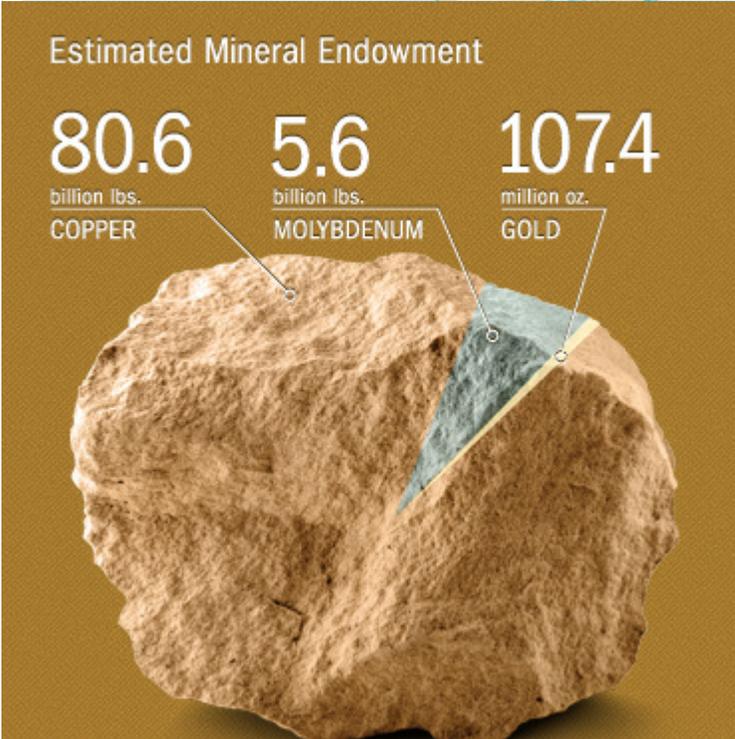
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The Reality of Alaska Mines

Mines in Alaska have had a positive effect...on the people, economy, infrastructure.



PEBBLE PROSPECT





<http://thevillagesnuna.com>





“If we could survive on beauty alone, in pristine wilderness, we would be the wealthiest people in the world.”

<http://thevillagesnuna.com>

THE VILLAGES

The Villages explores the struggles of rural Southwest Alaska where a lack of economic opportunity is threatening to destroy native culture and communities, yet the potential of natural resource extraction holds a promise for a stronger future.



Let's get Americans to work!!

