

**SUPPLEMENTAL DOCUMENTS TO U.S. HOUSE OF REPRESENTATIVES'  
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM  
STAFF REPORT:**

**THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S  
UNPRECEDENTED 404(C) ACTION IN BRISTOL BAY, ALASKA**

**NOVEMBER 4, 2015**

[REDACTED]

---

[REDACTED]

[REDACTED]

[REDACTED]

Begin forwarded message:

**From:** Geoffrey Parker [REDACTED] >  
**Date:** October 15, 2014 at 7:07:34 PM MDT  
**To:** [REDACTED]  
**Subject:** FW: Three decisions for Tribes, AIFMA and TU to make

---

**From:** Phil and [REDACTED] [[mailto:\[REDACTED\]](#)]  
**Sent:** Monday, April 12, 2010 9:22 PM  
**To:** jeff parker  
**Subject:** Re: Three decisions for Tribes, AIFMA and TU to make

A few suggested edits. I keep trying to include ecological impacts but if they make the sentences awkward then delete. Of course ignore any suggestions anyway.

----- Original Message -----

**From:** [jeff parker](#)  
**To:** 'Phil and [REDACTED]'  
**Sent:** Sunday, April 11, 2010 4:19 PM  
**Subject:** FW: Three decisions for Tribes, AIFMA and TU to make

[This is what I sent on 3/11](#)

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**From:** jeff parker [[mailto:\[REDACTED\]](#)]  
**Sent:** Thursday, March 11, 2010 9:21 AM  
**To:** 'Phil North ([REDACTED])'  
**Subject:** FW: Three decisions for Tribes, AIFMA and TU to make

[Sorry. Slipped my mind.](#)

[Jeff](#)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
ENVIRONMENTAL INFORMATION

August 6, 2015

Paul M. Wester, Jr.  
Chief Records Officer for the United States Government  
National Archives and Records Administration  
8601 Adelphi Road  
College Park, Maryland 20740-6002

Dear Mr. Wester:

In an effort to ensure compliance with 44 U.S.C. § 3106 and 36 C.F.R. § 1230.14, I am writing to report that the Environmental Protection Agency (EPA) has become aware of five instances where Phil North, a retired EPA employee, used a personal, non-EPA email account to potentially conduct government business with a third party and failed to forward such emails into Agency systems. Because EPA cannot confirm whether or not these emails are the only instances in which Mr. North potentially conducted government business on his personal email account and failed to forward the emails into his official EPA account, we are writing to report these circumstances which may indicate a potential loss or removal of federal records.<sup>1</sup>

The office maintaining the records

EPA became aware of a potential loss or removal of federal records after the Office of Inspector General (OIG) informed EPA that during the course of its ongoing evaluation, the "Review of the EPA's Assessment of Potential Mining Impacts in Bristol Bay, Alaska," it obtained from a third party a copy of five emails sent to or from the personal email account of Phil North potentially concerning government business.

A description of records with volume and dates, if known

EPA does not have, nor has it reviewed, a copy of the emails OIG obtained from a third party. However, as described to EPA staff by OIG staff, in three instances, emails were sent to Mr. North's personal email account from a third party and in two instances emails were sent from Mr. North's personal email account to a third party. In these instances, Mr. North did not copy his official EPA email account. OIG staff indicated that at least two of the emails contained an attachment.

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<sup>1</sup> In June 2014, EPA reported a likely loss of electronic copies of emails related to Mr. North's official EPA email account. Specifically, EPA reported that the potential loss related to a gap in email records on Mr. North's "epa.gov" email account between April 2007 and May 2009. In March, 2015, EPA provided a thorough follow-up report related to the gap in email records in Mr. North's epa.gov account. On June 24, 2015, you closed your file regarding this matter.

### Circumstances surrounding the potential loss of records

Mr. North used his personal email account to conduct government business at times. Consistent with Agency policy at the time of Mr. North's employment with the EPA, EPA had understood that Mr. North would copy his official account or forward messages into Agency information systems. EPA maintains copies of emails concerning government business that Mr. North sent from his personal email account and forwarded into Agency information systems. As noted above, EPA is now aware of five instances where Mr. North potentially conducted government business on his personal email account, but failed to forward or copy the emails into the EPA email system for preservation. As of this time, based on the OIG's description of the documents, EPA has been unable to locate such documents on Agency systems. Further, EPA currently has no information regarding the frequency with which Mr. North used a personal email account to conduct government business and failed to copy or forward emails into an Agency account.

### Actions taken to salvage, retrieve, or reconstruct the records

EPA has contacted Mr. North, through counsel, and requested that Mr. North promptly provide EPA a copy of all EPA work-related emails and attachments, if any, sent to or from Mr. North's personal email account(s) during the time Mr. North was an EPA employee, so that EPA may review the material and determine if there are any records that were not forwarded or copied to an official EPA email account. A copy of that letter is attached to this report.<sup>2</sup> We will provide NARA with an updated report if Mr. North complies with the Agency's request. The OIG has agreed to maintain copies of the documents obtained during its evaluation, and to transmit a copy of those documents to EPA at an appropriate time for preservation by EPA in accordance with the correct record schedule for the subject matter of the emails.

### Continuing Actions and Improvements

Mr. North is no longer an EPA employee. However, EPA remains committed to educating current staff regarding the preservation of federal records and the 2014 amendments to the Federal Records Act regarding the use of personal messaging accounts to create or transmit federal records. As previously reported, EPA issued a new Records Policy dated February 15, 2015, that addresses the use of personal email accounts. Specifically, the policy explains:

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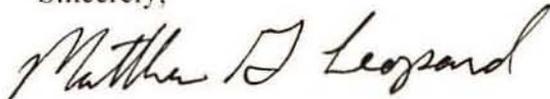
<sup>2</sup> In the letter to Mr. North's counsel, EPA also requests any passwords Mr. North may have used to access two encrypted folders on a thumb drive that was once assigned to Mr. North while an EPA employee. The thumb drive is similar to thumb drives that EPA Region 10 provided its employees to enable them to access Lotus Notes email remotely. Because the two folders on the thumb drive are encrypted, EPA has been unable to open them and determine if they, in fact, contain data or information. EPA has transferred the thumb drive containing the encrypted folders to the OIG. It also provided the OIG with a few other thumb drives once assigned to Mr. North. Although EPA did not locate any data or encrypted folders on these drives, it provided them to the OIG for further analysis. EPA is not, at this time, reporting a loss or removal of federal records related to the thumb drives to NARA because EPA has not verified that any data are stored on any of the drives and the drives remain in the custody of the Agency. EPA will report any loss of records to NARA if new information becomes available indicating that such a loss of records has occurred.

“Official Agency business should first and foremost be done on official EPA information systems” and employees should not use personal email unless the employee “creating or sending the record either: (1) copies their EPA email account at the time of initial creation or transmission of the record, or (2) forwards a complete copy of the record to their EPA email account within 20 days of the original creation or transmission of the record.” Additionally, for the past two years, EPA has required that all employees take periodic mandatory Records Management training. The Agency has also instituted a Quarterly Records Management Day, with reminders sent by the Deputy Administrator, to promote good records management practices and to highlight specific issues. For example, on March 27, 2015, the Agency conducted a Quarterly Records Management Day specifically advising employees about the Agency’s Records Policy and discouraging the use of non-EPA email systems.

In addition to an ongoing training effort, EPA has provided employees with tools specifically designed to make management of email records easier. In November 2013, EPA deployed the EZ Email Records tool to all employees, enabling them to streamline email records management and save email records directly from Outlook. EPA required all employees to take EZ Email Records training following the deployment of the tool. At the same time, EPA has established a workgroup to begin the process of evaluating the Capstone Records Schedule, which could potentially help automate the management of some email records at EPA.

Should you have any questions, you may contact me via email at [REDACTED]

Sincerely,



Constance Downs  
Acting Records Officer

Enclosure: Letter to Ms. Garde, attorney for Mr. North



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
REGIONAL COUNSEL

Billie Garde  
Clifford and Garde, LLP  
1130 Connecticut Ave., NW  
Suite 500  
Washington, D.C. 20036

August 6, 2015

Dear Ms. Garde:

This letter concerns two issues related to Mr. North's prior employment at the United States Environmental Protection Agency (EPA). First, EPA has become aware of a potential loss or removal of federal records involving Mr. North's use of a personal email account while potentially conducting Agency business. Specifically, EPA has become aware of five instances where Mr. North used a personal, non-EPA email account to potentially conduct government business with a third party and failed to forward such emails into Agency systems. We learned about this activity from the Office of Inspector General (OIG), which, as you know, is in the midst of an ongoing evaluation, the "Review of the EPA's Assessment of Potential Mining Impacts in Bristol Bay, Alaska." The OIG obtained a copy of these emails from a third party.

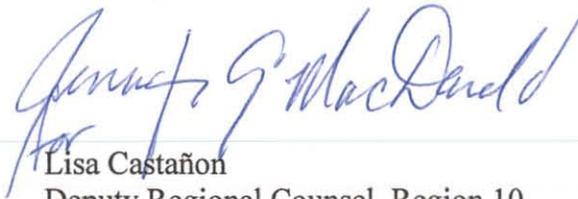
The Agency takes its record-keeping obligations under the Federal Records Act very seriously. We request that Mr. North promptly provide a copy of all emails and attachments, if any, sent to or from Mr. North's personal email account(s) while Mr. North was an EPA employee concerning EPA government business, so that EPA may review the documents and determine if there are any records that were not forwarded or copied to an official EPA email account. Please provide any such documents to Ashley Palomaki at [REDACTED] or [REDACTED], within two weeks of the date of this letter.

The Agency has reported the potential loss or removal of federal records to the National Archives and Records Administration (NARA) pursuant to 44 U.S.C. § 3106 and 36 C.F.R. § 1230.14. We have attached a copy of that report. EPA intends to provide a supplemental report to NARA once we receive your client's response to this request.

Second, while in the course of responding to a Freedom of Information Act request, EPA learned that two folders on a thumb drive assigned to Mr. North were encrypted so the content, if any, is not accessible. The Agency needs the password(s) from Mr. North, so the folders can be opened. The Agency would also like any passwords used by Mr. North on other Agency thumb drives, if any. Please provide this information to Ashley Palomaki within two weeks of the date of this letter.

Thank you for your assistance in these matters. If you have any questions, you may contact Ashley Palomaki at [REDACTED]

Sincerely,

A handwritten signature in blue ink, appearing to read "Lisa Castañon". The signature is written in a cursive style with a large initial "L".

Lisa Castañon  
Deputy Regional Counsel, Region 10  
U.S. Environmental Protection Agency

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EPA-1184

Dennis  
McLerran [REDACTED]  
03/08/2011 11:43 AM

To Kendra Tyler, Matthew Magorrian  
cc Kate Kelly, Richard Parkin, Bob Sussman, Nancy Stoner,  
Michelle Pirzadeh, Marianne Holsman  
bcc  
Subject Fw: RSVP: Please Join Justice Sandra Day O'Connor for a  
Celebration of Bristol Bay, AK

Kendra and Matt:

Please politely decline this invitation. I need to retain objectivity during the time we are conducting the assessment of the Bristol Bay watershed and have the 404(c) petitions in front of us. Thanks.

Dennis

----- Forwarded by Dennis McLerran [REDACTED] on 03/08/2011 08:41 AM -----

From: Trozell Weaver [REDACTED]  
To: Trozell Weaver [REDACTED]  
Date: 03/07/2011 10:25 AM  
Subject: RSVP: Please Join Justice Sandra Day O'Connor for a Celebration of Bristol Bay, AK

---

## Wednesday, March 30<sup>th</sup> 2011, 6-8 pm \* U.S. Supreme Court

**Justice Sandra Day O'Connor** cordially invites you to a reception to celebrate the economic, cultural, and ecological values of Alaska's Bristol Bay Watershed.

With special remarks from:

**Justice Sandra Day O'Connor (Ret.)**

**Rick Halford**, Former President, Alaska State Senate

**Kim Williams**, Executive Director, Nunamta Aulukestai

**Paul Greenberg**, Author of NYT Bestseller "Four Fish: The Future of the Last Wild Food"

**Anisa Kamadoli Costa**, President, The Tiffany & Co. Foundation

---

**Please RSVP by March 21\*** to Trozell Weaver at [REDACTED] or [REDACTED].

**Catered by Chef Todd Gray of Equinox**

\* *This is a non-transferable, invitation only event.*

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**Sponsored by:** Wild Salmon Center, Trout Unlimited, Bristol Bay Regional Seafood Development Association, Alaska Independent Fishermen's Marketing Association, Nunamta Aulukestai, Alaska Conservation Foundation, Natural

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*Resources Defense Council, Earthworks, National Parks Conservation Association*  
*Photo by Ben Knight.*



Justice\_O'Connor\_email\_invite.pdf

**Wednesday, March 30th, 2011, 6-8 pm \* U.S. Supreme Court**

**Justice Sandra Day O'Connor** cordially invites you to a reception to celebrate the economic, cultural, and ecological values of Alaska's Bristol Bay Watershed.



*A Reception Celebrating Bristol Bay*

**Please RSVP by March 21\***  
to [REDACTED]

*Catered by Chef Todd Gray  
of Equinox*

*\* This is a non-transferable, invitation only event. Please have identification ready upon entering through the north door entrance on Maryland Avenue, NE.*

*Supreme Court of the United States  
1 First Street, NE, Washington, D.C.*

*With special remarks from:*

**Justice Sandra Day O'Connor (Ret.)**

**Rick Halford**, Former President, Alaska State Senate

**Kim Williams**, Executive Director, Nunamta Aulukestai

**Paul Greenberg**, Author of NY Times Bestseller "Four Fish: The Future of the Last Wild Food"

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**Sponsored by:** Wild Salmon Center, Trout Unlimited, Bristol Bay Regional Seafood Development Association, Alaska Independent Fishermen's Marketing Association, Nunamta Aulukestai, Alaska Conservation Foundation, Natural Resources Defense Council, Earthworks, National Parks Conservation Association

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EPA-2552

Palmer Hough [REDACTED] To Denise Keehner, David Evans, Jim Pendergast  
03/31/2011 08:08 AM cc  
bcc  
Subject Re: Fw: One more draft BB letter for your review - deadline  
COB 3/31

Denise/Dave:

The two sentences that Greg flagged are new and have not appeared in any of our previous letters. While they are factually correct OW and others at HQ have expressed sensitivity to our referring to 404(c) in this way in our letters particularly with the various 404(c) riders floating around CapHill. The BLM letter does stand on its own without these two sentences. I just got off the phone with R10 and they understand the sensitivity are comfortable pulling them out.

*"The short term goal of this assessment will be to inform my decision whether to initiate a 404(c) action in advance of permitting. The ultimate goal, of course, is the protection and sustainability of the Bristol Bay fishery and ecosystem."*

LPJ did make this kind of direct connect during her talk last night at the Supreme Court but that was verbally and to a very small crowd which is very much in favor of EPA action.

-Palmer

Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division  
U.S. EPA Headquarters [REDACTED]  
[REDACTED]

Denise Keehner Please remind me what exactly we said in our d... 03/31/2011 10:21:22 AM

From: Denise Keehner [REDACTED]  
To: Palmer Hough [REDACTED]  
Cc: David Evans [REDACTED]  
Date: 03/31/2011 10:21 AM  
Subject: Fw: One more draft BB letter for your review - deadline COB 3/31

Please remind me what exactly we said in our decision (and letters) to initiate this review. Also--how did LPJ characterize this last night?

----- Forwarded by Denise Keehner [REDACTED] on 03/31/2011 10:20 AM -----

From: Gregory Peck [REDACTED]  
To: Palmer Hough [REDACTED]  
Cc: Christopher Hunter [REDACTED] Danielle Salvaterra [REDACTED] David  
Evans [REDACTED] Denise Keehner [REDACTED] Gautam  
Srinivasan [REDACTED] Heidi Karp [REDACTED] Jim  
Pendergast [REDACTED] Matthew Klasen [REDACTED] Rachel  
Fertik [REDACTED]

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Date: 03/31/2011 09:56 AM  
Subject: Re: One more draft BB letter for your review - deadline COB 3/31

Palmer

This letter looks good - except the sentence about "informing my decision on use of 404(c)." Its seems like we have to discuss this issue in each of these letters? The purpose of the assessment is to identify options for improving protection of BB - not specifically to inform on the use of 404(c). Would it be helpful to schedule a call with the Region to agree on this issue?

Thanks,  
Greg

-----  
Gregory E. Peck  
Chief of Staff  
Office of Water  
U.S. Environmental Protection Agency  
[REDACTED]  
[REDACTED]

Palmer Hough

Folks: Please take a quick look at this fourth lett...

03/31/2011 09:44:31 AM

From: Palmer Hough [REDACTED]  
To: Rachel Fertik [REDACTED] David Evans [REDACTED] Christopher Hunter [REDACTED] Jim Pendergast [REDACTED] Denise Keehne [REDACTED] Danielle Salvaterra [REDACTED] Matthew Klasen [REDACTED] Gregory Peck [REDACTED] Gautam Srinivasan [REDACTED] Heidi Karp [REDACTED]  
Date: 03/31/2011 09:44 AM  
Subject: One more draft BB letter for your review - deadline COB 3/31

Folks:

Please take a quick look at this fourth letter regarding BB and let me know your comments (along with the three I sent yesterday) by COB today. This fourth letter is a general invitation to BLM to participate in the BB assessment and is modeled on the other letters that went out to Federal/State agencies earlier this month. BLM has land management responsibilities in the Nushagak Drainage but the Region inadvertently overlooked including them in the pack of letters that went out to other federal agencies - thus they would like to expedite release of this letter.

Please let me know if you have any questions.

Thanks, Palmer

[attachment "Bristol Bay Agency Letter BLM Cribley\_3-31-11.docx" deleted by Gregory Peck [REDACTED]]

Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division

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U.S. EPA Headquarters [REDACTED]  
[REDACTED]  
www.epa.gov/wetlands

www.epa.gov/wetlands

----- Forwarded by Palmer Hough [REDACTED] on 03/31/2011 09:35 AM -----

From: Palmer Hough [REDACTED]  
To: Rachel Fertik [REDACTED], David Evans [REDACTED], Christopher Hunter [REDACTED], Jim Pendergast [REDACTED], Denise Keehner [REDACTED], Danielle Salvaterra [REDACTED], Matthew Klasen [REDACTED], Gregory Peck [REDACTED], Gautam Srinivasan [REDACTED], Heidi Karp [REDACTED]  
Date: 03/30/2011 04:31 PM  
Subject: Action: 3 draft Bristol Bay controls for your review - deadline COB 3/31

---

Folks:

Attached are draft responses developed by R10 to three recent controls regarding the BB assessment. All three drafts are short (one-page) and are in response to the following three controls:

- 1) 3-18-11 critical letter from the Institute for Energy Research. This letter had a very hostile tone and speculated a great deal on a potential preemptive 404(c). The response clarifies that the assessment is not a 404(c) action and avoids any speculation about one.
- 2) 3-16-11 supportive letter from 4 members of the AK state legislature
- 3) 3-18-11 supportive letter from the Western Division of the American Fisheries Society.

**Please provide any edits you have by COB 3/31.**

Thanks, Palmer

[attachment "Energy Research Institute control\_3-30-11.docx" deleted by Gregory Peck [REDACTED]  
[attachment "BB AK State Legislature control\_3-30-11.docx" deleted by Gregory Peck [REDACTED]  
[attachment "BB WDAFS control 3-30-11.docx" deleted by Gregory Peck [REDACTED]

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Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division  
U.S. EPA Headquarters [REDACTED]  
[REDACTED]

www.epa.gov/wetlands

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EPA-3088

Nancy Stoner [REDACTED] To: Gregory Peck  
03/31/2011 12:16 PM cc  
bcc  
Subject: Re: Fw: One more draft BB letter for your review - deadline  
COB 3/31

OK but that is one of the options for protection, so I think that's OK. I am surprised she went to that event. Dennis and I both declined.

Gregory Peck | expect I'm going to need your help. Thanks 03/31/2011 10:22:50 AM

From: Gregory Peck [REDACTED]  
To: Nancy Stoner [REDACTED]  
Date: 03/31/2011 10:22 AM  
Subject: Fw: One more draft BB letter for your review - deadline COB 3/31

I expect I'm going to need your help.

Thanks

-----  
Gregory E. Peck  
Chief of Staff  
Office of Water  
U.S. Environmental Protection Agency  
[REDACTED]  
[REDACTED]

----- Forwarded by Gregory Peck [REDACTED] on 03/31/2011 10:22 AM -----

From: David Evans [REDACTED]  
To: Gregory Peck [REDACTED] Palmer Hough [REDACTED] "Ann Campbell"  
Cc: Christopher Hunter [REDACTED] Danielle Salvaterra [REDACTED] Denise  
Keehner [REDACTED] Gautam Srinivasan [REDACTED] Heidi  
Karp [REDACTED] Jim Pendergast [REDACTED] Matthew  
Klasen [REDACTED] Rachel Fertik [REDACTED]  
Date: 03/31/2011 10:04 AM  
Subject: Re: One more draft BB letter for your review - deadline COB 3/31

Last night at the Supreme Court reception, Administrator Jackson directly linked the WS assessment to the petition to initiate 404(c). I had planned to followup with Ann Campbell to get copy of the TPs she spoke from, that would be very helpful in decision on how to write to this in letters.

Dave  
David Evans, Director  
Wetlands Division  
Office of Wetlands, Oceans and Watersheds  
[REDACTED]  
[REDACTED]

----- Sent from my BlackBerry Wireless Handheld  
Gregory Peck

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----- Original Message -----

**From:** Gregory Peck  
**Sent:** 03/31/2011 09:56 AM EDT  
**To:** Palmer Hough  
**Cc:** Christopher Hunter; Danielle Salvaterra; David Evans; Denise Keehner; Gautam Srinivasan; Heidi Karp; Jim Pendergast; Matthew Klasen; Rachel Fertik  
**Subject:** Re: One more draft BB letter for your review - deadline COB 3/31  
Palmer

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Thanks,  
Greg

---

Gregory E. Peck  
Chief of Staff  
Office of Water  
U.S. Environmental Protection Agency

[REDACTED]

[REDACTED]

Palmer Hough

[Folks: Please take a quick look at this fourth lett...](#)

03/31/2011 09:44:31 AM

From: Palmer Hough  
To: Rachel Fertik, David Evans, Christopher Hunter, Jim Pendergast, Denise Keehner, Danielle Salvaterra, Matthew Klasen, Gregory Peck, Gautam Srinivasan, Heidi Karp  
Date: 03/31/2011 09:44 AM  
Subject: One more draft BB letter for your review - deadline COB 3/31

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Please let me know if you have any questions.

Thanks, Palmer

[attachment "Bristol Bay Agency Letter BLM Cribley\_3-31-11.docx" deleted by Gregory Peck]

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Palmer Hough, Environmental Scientist

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[REDACTED]  
Wetlands Division  
U.S. EPA Headquarters [REDACTED]  
[REDACTED]

www.epa.gov/wetlands

----- Forwarded by Palmer Hough [REDACTED] on 03/31/2011 09:35 AM -----

From: Palmer Hough [REDACTED]  
To: Rachel Fertik [REDACTED] David Evans [REDACTED] Christopher  
Hunter [REDACTED] Jim Pendergast [REDACTED] Denise  
Keehner [REDACTED] Danielle Salvaterra [REDACTED] Matthew  
Klasen [REDACTED] Gregory Peck [REDACTED] Gautam  
Srinivasan [REDACTED] Heidi Karp [REDACTED]  
Date: 03/30/2011 04:31 PM  
Subject: Action: 3 draft Bristol Bay controls for your review - deadline COB 3/31

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**Please provide any edits you have by COB 3/31.**

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[attachment "BB WDAFS control 3-30-11.docx" deleted by Gregory Peck [REDACTED]]

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Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division  
U.S. EPA Headquarters [REDACTED]  
[REDACTED]

www.epa.gov/wetlands

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PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE

EPA-BBL-226

Arvin  
Ganesan [REDACTED]  
01/03/2011 04:26 PM

To: Bob Sussman  
cc  
bcc  
Subject: FW: Lisa Jackson, EPA

hi bob. this is not a good meeting for lpj, right?

-----Forwarded by Arvin Ganesan/[REDACTED] on 01/03/2011 04:25PM

-----  
To: Arvin Ganesan/[REDACTED]  
From: "King, Bob (Begich)" [REDACTED]  
Date: 01/03/2011 04:09PM  
Subject: FW: Lisa Jackson, EPA

Arvin,

Any word on this request? Is there anyone else I should contact?

Bob King

**From:** King, Bob (Begich)  
**Sent:** Thursday, December 23, 2010 1:24 PM  
**To:** Arvin R. Ganesan [REDACTED]  
**Subject:** FW: Lisa Jackson, EPA

Arvin,

A group of Iliamna residents opposed to a 404(c) action for the Pebble mine would like to set up a meeting with Administrator Jackson to express the same. They note that Jackson met with Pebble opponents while visiting the Bay. Would it be possible to set up a meeting while there are in the capital between January 10 and 17?

Participants would include Lisa Reimers, Abe Williams, Lorene Anelon, Raymond Wassillie, Joanne Wassillie, Tim and Louise Anelon, and Trefon Angasan, all from the Iliamna and Naknek areas. Thanks.

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PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE

Bob King

**From:** Lisa Reimers [REDACTED]  
**Sent:** Thursday, December 16, 2010 5:36 PM  
**To:** King, Bob (Begich)  
**Subject:** Lisa Jackson, EPA

Dear Bob,

We have group of us that are not in favor to the 404 clean water act and we would like to meet with Lisa Jackson in Washington DC. We were not able to get her to meet the communities closest to the proposed Pebble project and we would like to meet with her in Washington DC, would Senator Begich be able to help us set up a meeting with Ms. Jackson?

*Lisa Reimers*

*CEO*

[REDACTED]

[REDACTED]

[IMAGE]



- Image.image001.jpg@01CB9DDC.0D5D5EE0.plain

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EPA-BBL-260

**Bob Sussman** [REDACTED] To: Arvin Ganesan  
01/03/2011 06:28 PM cc  
bcc  
Subject: Re: FW: Lisa Jackson, EPA

she shouldn't take this. She'll end up mtg with everyone.

Robert M. Sussman  
Senior Policy Counsel to the Administrator  
Office of the Administrator  
[REDACTED]  
US Environmental Protection Agency

Arvin Ganesan | [hi bob. this is not a good meeting for lpj, right? --...](#) | 01/03/2011 04:26:32 PM

From: Arvin Ganesan [REDACTED]  
To: Bob Sussman [REDACTED]  
Date: 01/03/2011 04:26 PM  
Subject: FW: Lisa Jackson, EPA

hi bob. this is not a good meeting for lpj, right?

-----Forwarded by Arvin Ganesan/DC/USEPA/US on 01/03/2011 04:25PM -----

To: Arvin Ganesan [REDACTED]  
From: "King, Bob (Begich)" [REDACTED]  
Date: 01/03/2011 04:09PM  
Subject: FW: Lisa Jackson, EPA

Arvin,

Any word on this request? Is there anyone else I should contact?

Bob King

**From:** King, Bob (Begich)  
**Sent:** Thursday, December 23, 2010 1:24 PM  
**To:** Arvin R. Ganesan [REDACTED]  
**Subject:** FW: Lisa Jackson, EPA

Arvin,

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**To:** King, Bob (Begich)  
**Subject:** Lisa Jackson, EPA

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*Lisa Reimers*

*CEO*

[REDACTED]

[lisa.reimers@iliamnacorp.com](mailto:lisa.reimers@iliamnacorp.com)

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EPA-BBL-4224

Michael  
Szerlog [REDACTED]  
10/28/2010 06:09 PM

To Allyn Stern, Anderson-Carnahan.Linda, Bob Perciasepe, Bob Sussman, Cara Steiner-Riley, Christopher Hunter, David Allnutt, David Evans, Denise Keehner, Dennis McLerran, Brian Frazer, Marcia Combes, Matthew Magorrian, Michelle Pirzadeh, Nancy Stoner, Palmer Hough, Patricia McGrath, Phil North, Richard Parkin, Thiesing.mary, Ann Campbell, Tanya Code, Mike Bussell

cc

bcc

Subject \*\*UPDATED Bristol Bay Briefing Materials

Folks,

Please find updated briefing materials. The materials were updated after meeting with Dennis.



Bristol Bay-Administrator Brief 10-28-10 Final.pdf



Region 10 Bristol Bay Watershed Analysis 10-28-10 Final.pdf

Thanks

Michael J. Szerlog, Manager  
Aquatic Resources Unit  
Ecosystems, Tribal, and Public Affairs Office  
United States Environmental Protection Agency  
[REDACTED]

Michael Szerlog

Attorney-Client Deliberative Process

Confide...

10/27/2010 04:21:09 PM

From: Michael Szerlog, [REDACTED]  
To: Bob Sussman, [REDACTED], Bob Perciasepe, [REDACTED], Dennis McLerran/R10, [REDACTED], David Evans, [REDACTED], Michelle Pirzadeh, [REDACTED], Richard Parkin, [REDACTED], Denise Keehner, [REDACTED], Nancy Stoner, [REDACTED], Marcia Combes, [REDACTED], Allyn Stern, [REDACTED]  
Cc: [REDACTED], Brian Frazer, [REDACTED], David Palmer Hough, [REDACTED], Christopher Hunter, [REDACTED], Allnutt, [REDACTED], Cara Steiner-Riley, [REDACTED], Patricia McGrath, [REDACTED], Matthew Magorrian, [REDACTED], Phil North, [REDACTED]  
Date: 10/27/2010 04:21 PM  
Subject: \*\*Bristol Bay Briefing Materials

**Attorney-Client Deliberative Process**  
**Confidential. Do Not Release Under FOIA**

Folks,

Enclosed please find the briefing materials for the Bristol Bay briefing for the Administrator on November 4th. Pending the Region's briefing for Dennis on Thursday, October 28th, these documents may change.

[attachment "Region 10 Bristol Bay Watershed Analysis.pdf" deleted by Michael Szerlog/R10/USEPA/US]

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[attachment "Bristol Bay-Administrator Brief 10-27-10 Final.pdf" deleted by Michael  
Szerlog, [REDACTED]]

Thanks

Michael J. Szerlog, Manager  
Aquatic Resources Unit  
Ecosystems, Tribal, and Public Affairs Office  
United States Environmental Protection Agency  
[REDACTED]

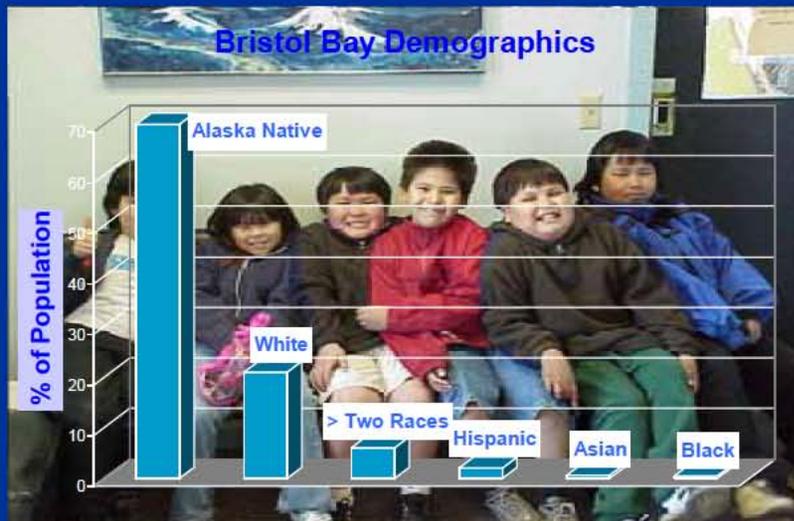


# Bristol Bay, Alaska 404(c)

Briefing for  
Administrator Jackson  
November 4, 2010

# Purpose

- To recommend an advance 404(c) process and receive Administrator Jackson's input and approval.



# Six tribes initially requested 404(c)

- Ekwok Village Council
- Nondalton Tribal Council
- Koliganak Village Council
- New Stuyahok Traditional Council
- Curyung Tribal Council
- Levelock Village Council



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# We have received 13 more requests to implement 404(c) with more coming

## 8 Organizations

- Choggiung LTD
- Bristol Bay Native Association
- Bristol Bay Native Corporation
- Bristol Bay Regional Seafood Development Association
- Alaska Independent Fisherman's Marketing Association
- United Fishermen of Alaska
- National Council of Churches
- Tiffany and Company

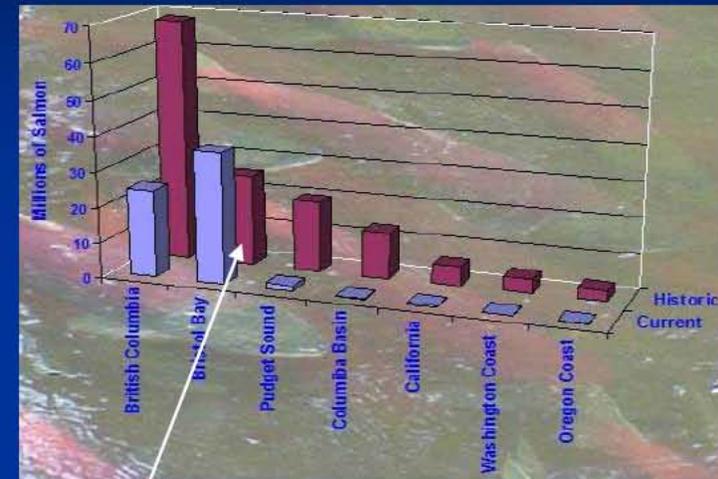
## 5 Individuals

- Kathleen W. Huber
- Dave Rogotzke
- Katie Rogotzke
- Roger Rogotzke
- Gary and Eileen Sheridan



# Concerns Prompting 404(c) Request

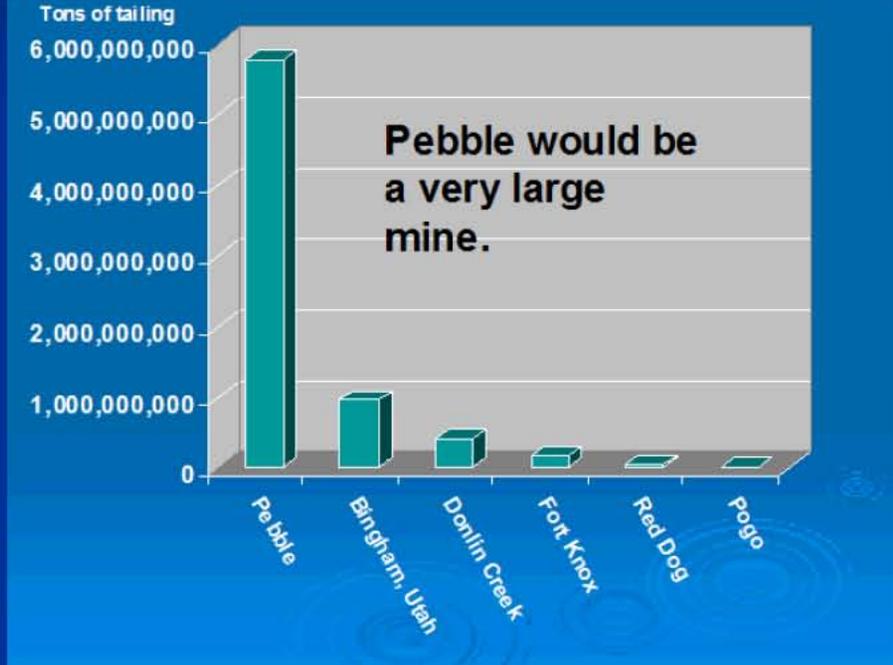
- Tribes and other stakeholders concerned about protecting Bristol Bay, particularly fisheries resources
  - World-class Sockeye Salmon fishery
  - Numerous potential mining projects and associated large-scale development (e.g. PLP)
- Rationale for advance 404(c) request:
  - Nature and extent of the adverse impacts coupled with the immense quality and vulnerability of the fisheries resource
  - Threat of impacts will harm all other investment in Bristol Bay



Historic Salmon Runs

# We have received 5 requests to wait for the NEPA/404 permit process.

- State of Alaska
- Alaska Peninsula Corporation
- Newhalen Tribal Council
- South Naknek Tribal Council
- Pebble Limited Partnership



## We are currently...

- Establishing a contract to complete a risk analysis for Bristol Bay salmon
- Initiating the Region 10 Bristol Bay Watershed Analysis

## We are requesting...

- Approval of the process forward.
- To begin implementation mid November.



## Overview of the Region 10 Bristol Bay Watershed Analysis

1. Conduct a public process that will lead to a decision whether to formally initiate an advance 404(c) action for the Bristol Bay Watershed.
  - This would not be a process required by regulation or statute. This would be a voluntary, open and transparent process to gather information, including public input, to inform EPA's determination whether activities requiring 404 permits in Bristol Bay will have an "unacceptable adverse effect" on the Bristol Bay fishery and ecosystem.
  - This phase would combine scientific/technical information gathering and analysis with Federal/State/Tribal involvement and public input.
  - This phase would require a detailed communications strategy.

Begin mid November 2010. This process could take 6 to 8 months, but we would target end of June 2011 for an EPA decision on whether to move to step #2 which is a 404(c) action.

2. If the decision is to proceed with a 404(c) action, EPA will implement the prescribed regulatory process.
  - Send "15 day" letter to Corps of Engineers stating that EPA is considering invoking Section 404(c) of the Clean Water Act.
  - Consult with Tribal Governments;
  - Consult with the landowners (State and tribal corporations);
  - Develop a proposed determination;
  - Hold a public comment period and hearing;
  - Develop the recommended determination. Then the process moves to HQ.

Begin June to August 2011. This process could take 8 to 12 months, but we would target mid August 2012 for completion of a final determination.

## Details of the Public Process

The purpose of this process is to build a common understanding of potential impacts to the watershed of Bristol Bay and to inform EPA's decision on the need for protections under 404(c). This will require rigorous science, participation of federal, state and tribal expert agencies and a transparent public process.

### Scientific/Technical Information Gathering

- Prepare a risk analysis for aquatic resources of Bristol Bay. This is a document describing the aquatic resources of Bristol Bay and the risks associated with human development in Bristol Bay. The risk analysis will take into account measures available to mitigate risks. Region 10 is using a contractor to review the scientific and any governmental agency-produced literature.

Begin in November 2010. This process could take three to six months, but we would target mid March 2010 for completion.

- Deliverables:
  1. Report documenting the salmon resource of Bristol Bay, Alaska, and its contributing tributaries.
  2. Report documenting the ecological and economic significance of salmon resource of Bristol Bay, Alaska, and its contributing tributaries to the local and North Pacific Ocean ecosystem.
  3. Report documenting the threats and stressors associated with human activities on watershed health.
  4. Report documenting mitigation practices, including any advanced technology, and their success and failure rates, in short (decadal) and perpetual time frames.
  5. Cumulative Watershed Analysis Plan with proposed analyses, data layers needed and their availability.
    - This plan should include detailed hydrologic modeling,
    - Non-point Source Pollution and Erosion Comparison Tool (N-SPECT), etc.
  6. An indexed hard copy record of the relevant parts of all documents referenced in the above reports as well as notes from meetings with agency staff or other sources of expert information.

*Note: all reports would include annotated literature review (including agency staff and other experts contacted)*

- Implement the Cumulative Watershed Analysis Plan based on risks that will likely have a significant adverse impact on aquatic resources in the Bristol Bay Watershed.

Begin February to May 2011. This process would be completed two or three weeks after completion of the above document and would conclude March to June 2011
---

#### Federal, State, Tribal Involvement and Public Input

- Develop the process around three questions:
  1. **Is the Bristol Bay fishery the one of a kind, world class fishery that it is depicted to be?** *We are very sure about this but the objective is to get this fact out in the open and build a general understanding around it.*
  2. **What are the existing and potential risks associated with activities that may require a Section 404 permit that create unacceptable adverse impacts (population level impacts) to recreation, wildlife or the fishery. Are there technologies or practices (however expensive) that will mitigate these risks?** *Again we are aware of unique hydrology and geology that allowed the development of these enormous salmon stocks. We are also aware of proposed activities such as large scale mining and road building that pose serious risks, but this would have to be verified and quantified in order to build a general public understanding.*
  3. **If warranted by the answers to 1 and 2 above, what restrictions would reduce or eliminate the risk of unacceptable adverse impacts?** *We don't anticipate restrictions that will limit day to day activities in the villages, but will focus on projects with the potential for a watershed-scale effect.*
- Answer these questions based on the deliverables above.
- Meet with federal, state and tribal agencies to assist EPA with performance of the following tasks: *Given the state's opposition to our action they may decline to participate.*
  - Pool the information at their disposal and determine appropriate sources of missing information
    - Technical literature
    - Traditional ecological knowledge;
  - Review deliverables;
  - Review EPA draft responses to the fundamental questions.

- Assist at public meetings addressing each of the fundamental questions.
  
- Hold public meetings in Anchorage and the Bristol Bay Watershed (and perhaps in Seattle) to explain the preliminary findings under each question and take public input.
  
- It will be best from the position building stand point to have a series of topical public meetings. If we try to address all three questions at one meeting people will jump to the bottom line, question number 3, without buying into the answers to 1 and 2.
  
- So we will have a series of at least 2 public meetings: a series of meetings to address the status and risks to the fishery (questions 1 and 2) and a series of meetings to address prudent measures to protect the resource for generations to come.
  - We would anticipate these meetings occurring in Anchorage, Dillingham, Iliamna, and King Salmon.
  
- A summary of each public meeting will be developed and made available via the web page.
  
- We may create fact sheets and mailings as work progresses to keep the public informed.
  
- EPA will consult with Tribes in the watershed that request consultation and will meet with PLP and other interests as requested and appropriate.

Complete public process by end of May due to Subsistence.  
Make a decision whether to move to step #2 which is a 404(c) action.

### **Approach to Possible Protections, Prohibitions or Restrictions**

- Restrictions or protections could be:
  - Geographically based, e.g. specific watersheds;
  - Activity based, e.g. discharges resulting from sulfide mining;
  - Threshold based, e.g. limit on volume of discharge, or on sulfide content;
  - A combination of any of the above,
  - Any threshold-based action requires studies to identify “safe” thresholds.

- An example protection:
  - The first iteration of the protection could be “no discharge of dredge or fill materials that fills, removes or inundates waters of the U. S. that contribute habitat or ecosystem support to the salmonid fishery.”
    - That would likely preclude construction of large pits, storage ponds, treatments systems, etc.
  - If sufficient information exists we could explore modifications of the protection that would allow loss of stream channels and wetlands that do not have salmon but provide ecosystem support. This would require that we can determine a threshold of lost ecosystem support that would not compromise the fishery.
  - Exceptions could be made for routine economic activity in area villages, such as building pads, airports, barge landing sites, roads in villages.

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EPA-BBL-4284

Phil North [REDACTED]  
05/20/2010 01:22 PM

To: Michael Szerlog  
cc  
bcc  
Subject: Fw: Bristol Bay Tribes

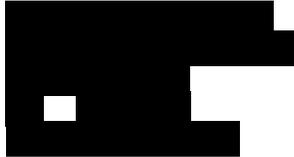
Michael,

Here is Wesley Foster's response to the question about Bristol Bay tribes. In short, all except Port Alsworth are federally recognized tribes and the majority are Yupik.

I was thinking about yesterday's conversation. The draft option paper has two options 1) wait for the permit/NEPA process and 2) do the analysis now, then decide how to proceed. It seems that nobody disagrees with the likelihood of a 404(c). Within Region 10 we seem to only disagree on the process for getting there. So perhaps it is prudent to do what analysis we can now, while maintaining all the options as time and information dictate. Of course to do that we need to either get additional resources or reprioritize. Maybe this is the message we need to give to Rick, Marcia and the RA.

Phil

Phillip North  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

----- Forwarded by Phil North/R10/USEPA/US on 05/20/2010 09:05 AM -----

From: Westley Foster [REDACTED]  
To: Phil North [REDACTED]  
Date: 05/20/2010 07:16 AM  
Subject: Re: Bristol Bay Tribes

Hello Phil,

1.) Yes, all of the listed Tribes, with possibly the exception of Port Alsworth, are Federal Recognized Tribes. We don't classify Port Alsworth as a part of Bristol Bay, nor do I see them on my list of FR Tribes.

2.) Yes, the majority of the Tribes in the BB Region are Central Yupik

Please let me know if you find yourself with any other questions.

Thanks,

Westley Foster

Sigo Protegiendo la Salud Humana y el Ambiente

Tribal Coordinator  
Vice-Chairman, National EPA Hispanic Employment Mgmt. Council

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Region 10 Hispanic Employment Program Manager  
U.S. Environmental Protection Agency  
Office of Ecosystems, Tribal and Public Affairs  
Tribal Trust and Assistance Unit, TTAU-085

[REDACTED]

Phil North

Hi Wes, Attached is a slide from my presentation...

05/19/2010 04:16:49 PM

From: Phil North [REDACTED]  
To: Westley Foster [REDACTED]  
Date: 05/19/2010 04:16 PM  
Subject: Bristol Bay Tribes

Hi Wes,

Attached is a slide from my presentation for the RA about Bristol Bay and the Pebble Mine. If you look at the slide from the "slide show" you will see that it progressively shows villages in Bristol Bay that 1) are sending us a letter asking that we use our CWA 404(c) authority to stop the Pebble Mine, 2) shows villages that are not signatories to the letter but have passed resolutions opposing the mine, 3) have passed resolutions supporting the mine, and 4) villages that have not consistently or officially supported or opposed the mine. My questions are:

- 1) Are all of these federally recognized tribes?
- 2) Are all of these villages primarily Yupik?

Thanks in advance for your help.

Phil

[attachment "Bristol Bay Villages.ppt" deleted by Westley Foster [REDACTED]]

Phillip North  
Environmental Protection Agency  
Kenai River Center

[REDACTED]

"To protect your rivers, protect your mountains."

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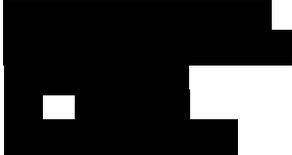
EPA-BBL-4441

Phil North [REDACTED]  
11/22/2010 06:17 PM

To: Michael Szerlog  
cc: Palmer Hough, Cara Steiner-Riley  
bcc:  
Subject: Re: Fw: Options for Protecting Bristol Bay

ANILCA (signed in 1980 by Jimmy Carter) used many of the federal laws to set aside almost 80 million acres of federal lands for National Parks, Monuments, Reserves, National Wildlife Refuges and National Forests. I don't know which existed before ANILCA and which were added to or were created as a result. Nor do I know which statutes other than ANILCA applied. But the issue here is really that the lands of concern in Bristol Bay are state owned and therefore not subject to most of those laws. Also, given their comments to date, the state is not likely to be a willing seller, so statutes that allow purchase will not apply. The arguments about SAMP and ADID apply because the time frames for these are very long. So the permit process would likely be well under way if not completed before we could complete these processes. The only conservation provision on the list that is timely and effective is 404(c).

Phillip North  
Ecologist  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

Michael Szerlog

Phil, One of my comments was to provide the re...

11/22/2010 01:03:10 PM

From: Michael Szerlog [REDACTED]  
To: Phil North [REDACTED]  
Date: 11/22/2010 01:03 PM  
Subject: Fw: Options for Protecting Bristol Bay

Phil,

One of my comments was to provide the readers with some idea if any of these options have ever been done in AK. Clearly some have - ANWR, Denali National Park, etc. Can you add some of these to his list.

Thanks

Michael J. Szerlog, Manager  
Aquatic Resources Unit  
Ecosystems, Tribal, and Public Affairs Office  
United States Environmental Protection Agency



----- Forwarded by Michael Szerlog [REDACTED] on 11/22/2010 01:58 PM -----

From: Michael Szerlog [REDACTED]

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PRIVILEGED AND UNCLASSIFIED FOR ANY OTHER PURPOSE  
To: Palmer Hough [REDACTED]  
Date: 11/22/2010 01:57 PM  
Subject: Re: Options for Protecting Bristol Bay

---

Palmer,

My comments. [attachment "Options for Protecting BB\_11-22-10. msz comments.doc" deleted by Phil North [REDACTED]]

Thanks

Michael J. Szerlog, Manager  
Aquatic Resources Unit  
Ecosystems, Tribal, and Public Affairs Office  
United States Environmental Protection Agency  
[REDACTED]

---

Palmer Hough

Folks: During a number of recent briefings on BB...

11/22/2010 11:36:19 AM

From: Palmer Hough [REDACTED]  
To: Christopher Hunter, [REDACTED], Phil North, [REDACTED], Michael Szerlog, [REDACTED], Cara Steiner-Riley, [REDACTED]  
Cc: Heidi Karp, [REDACTED], Brian Frazer, [REDACTED]  
Date: 11/22/2010 11:36 AM  
Subject: Options for Protecting Bristol Bay

---

Folks:

During a number of recent briefings on BB, upper management has raised questions regarding other potential mechanisms for protecting Bristol Bay (e.g. SAMPs, National Monument, National Wildlife Refuge, etc). Folks have requested that we put together the list of the Federal government's potential options for protecting BB and offer, at least a preliminary analysis, regarding if and why 404(c) makes the most sense in this instance.

Attached is a very first cut at this initial summary and analysis. Many thanks for Heidi Karp and Chen Lu, OGC's legal intern, for compiling the lists in Sections I-III.

WD promised this write-up to Denise a week ago. While there is not a great deal of pressure to deliver it, we should get it into shape for sharing with others in the agency. I would appreciate your comments by COB 11/30.

Thanks, Palmer

[attachment "Options for Protecting BB\_11-22-10.doc" deleted by Michael Szerlog, [REDACTED]]

---

Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division  
U.S. EPA Headquarters  
[REDACTED]

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[www.epa.gov/wetlands](http://www.epa.gov/wetlands)

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EPA-BBL-447

Phil North [REDACTED] To Christopher Hunter  
05/25/2010 04:00 PM cc  
bcc  
Subject Fw: Tribes request 404(c) process

Here is the tribal request for a 404(c). Lisa Jackson is one of the addressees.

Phillip North  
Environmental Protection Agency  
Kenai River Center

[REDACTED]

"To protect your rivers, protect your mountains."

----- Forwarded by Phil North [REDACTED] on 05/25/2010 02:59 PM -----

From: Cara Steiner-Riley [REDACTED]  
To: Michael Szerloc [REDACTED], Phil North [REDACTED] Patricia McGrath [REDACTED], Mary Thiesing [REDACTED]  
Cc: David Allnutt [REDACTED]  
Date: 05/25/2010 09:34 AM  
Subject: Fw: Tribes request 404(c) process

In case you have not seen these....

Cara Steiner-Riley  
Assistant Regional Counsel  
U.S. Environmental Protection Agency

[REDACTED]

----- Forwarded by Cara Steiner-Riley [REDACTED] on 05/25/2010 10:28 AM -----

From: "jeff parker" <[REDACTED]>  
To: Cara Steiner-Riley [REDACTED]  
Date: 05/24/2010 06:59 PM  
Subject: Tribes request 404(c) process

Dear Ms. Cara Steiner-Riley,

I received your phone message, returning mine. Thank you.

On Friday, May 21, I mailed to Mr. McLerran and Ms. Jackson of EPA the attached letter is from six federally-recognized tribes in the Kvichak and Nushagak river drainages of SW Alaska. Therein, the Tribes request that EPA commence a public process under Section 404(c) of the Clean Water Act, to identify waters and wetlands in which discharge of dredge and fill material (including mining wastes) associated with metallic sulfide mining in those drainages, including from a potential Pebble mine, would be prohibited or restricted.

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Due to overlapping issues, the letter on 404(c) also encloses copies of two other letters to which the letter on 404(c) refers for certain purposes. One is on my letterhead, from me and my co-counsel, and concerns our tribal clients' potential status as cooperating agencies on any EIS on Pebble mine. The other, from the six tribes and a commercial fishing cooperative (AIFMA Cooperative d/b/a the Alaska Independent Fishermen's Marketing Association) to a state Representative Bryce Edgmon who represents much of the area, urges him to facilitate discussion of whether most of the state land in the Kvichak and Nashagak drainages, including at the Pebble mining claims, should be legislatively designated as a state fish and game refuge or state critical habitat area. The letter to Rep. Edgmon attaches a briefing paper to which the 404(c) letter refers for certain purposes.

However, I did not mail last Friday the letter on cooperating agency status, when I enclosed it with the 404(c) letter. I will do so shortly, but I would like to speak to you first. So, let's try to talk in the morning.

Thanks.

Jeff Parker



Six Tribes' Joint Letter to EPA requesting 404(c) process.pdf



Enclosure\_1\_Counsel Request meet w Corps, EPA re tribes as cooperating agencies.pdf



Enclosure\_2\_Tribes & AIFMA's Joint Letter to Rep. Edgmon w Briefing Paper.pdf

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May 21, 2010

Col. Reinhard W. Koenig  
U. S. Army Corps of Engineers, Alaska District, CEPOA-DE  
P.O. Box 6898, Elmendorf AFB  
Anchorage, Alaska 99506

John Pavitt  
U. S. Environmental Protection Agency, Alaska Operations Office  
222 West 7<sup>th</sup> Avenue, Box 19  
Anchorage, Alaska 99513

Subject: Request to meet with Corps and EPA regarding Six Tribes being cooperating agencies on any EIS on a potential Pebble mine, and potential request for joint-lead agencies.

Dear Colonel Koenig and Mr. Pavitt:

I and my co-counsel Thomas E. Meacham represent six federally-recognized tribes on matters (including litigation) related to a potential Pebble mine in Southwest Alaska. These tribes are: (1) the Nondalton Tribal Council, (2) Koliganek Village Council, (3) New Stuyahok Traditional Council, (4) Ekwok Village Council, (5) Curyung Tribal Council (Dillingham), and (6) Levelock Village Council. Mr. Meacham and I would like to meet with representatives of your agencies to discuss the fact that these six tribes may request to be cooperating agencies on any environmental impact statement (EIS) regarding a proposed Pebble mine.

We also represent the Alaska Independent Fishermen's Marketing Association (AIFMA) and Trout Unlimited, Inc. (TU) in the pending litigation. On behalf of all eight clients, we would also hope to discuss their potential request that joint-lead federal agencies be designated on any EIS.

**I. Our tribal clients may request cooperating-agency status.**

Our threshold concern is to discuss, sooner rather than later, the six tribes potentially being cooperating agencies. The Pebble Limited Partnership (PLP) has said that it may submit mine permit applications in 2011.<sup>1</sup> The six tribes need to understand what they might be undertaking as cooperating agencies. They may seek grant funds. Your agencies presumably would want to understand what role the tribes might play as cooperating agencies.

<sup>1</sup> Prior to January 2010, PLP said it expected to commence the permitting process in 2010. In January 2010, PLP's chief executive officer, John Shively, announced that PLP would not be ready to file applications at least until 2011.

Federal regulations provide that “cooperating agencies” are those having jurisdiction by law or special expertise relevant to either (1) any impact at issue in an EIS, or (2) a reasonable alternative. The regulations provide that recognized tribes may be cooperating agencies.<sup>2</sup> Cooperating agencies should assist during scoping.<sup>3</sup> Thus, lead or joint-lead agencies should designate cooperating agencies *before* scoping. Cooperating agency status for appropriate non-federal agencies “should be routinely solicited,” and should be designated *no later* than the scoping process.<sup>4</sup> EPA recommends that Alaska tribes make early requests for cooperating agency status, in order to address subsistence and traditional ecological knowledge.<sup>5</sup> Thus, an early discussion of this subject in relation to Pebble will facilitate EPA’s recommendation.

These six tribes meet both federal grounds for eligibility,<sup>6</sup> and as explained below are *uniquely* positioned to do so in several respects.

**A. Regarding impacts at issue, these tribes offer knowledge of subsistence and traditional ecological knowledge.**

We would like to hear your views on whether these federally-recognized tribes can assist regarding (1) environmental and social impacts at issue, particularly with respect to subsistence, and (2) updating, generating and evaluating subsistence-related information that could be useful in an EIS, particularly if done in cooperation with other agencies.<sup>7</sup>

These six Alaskan tribes offer traditional ecological knowledge of subsistence use areas, harvest practices, and resources in the Kvichak and Nushagak drainages. Most subsistence at

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<sup>2</sup> 40 CFR 1508.5.

<sup>3</sup> 40 CFR 1501.6(b)(2).

<sup>4</sup> Memo for Heads of Fed. Agencies, Exec. Off. of President, CEQ, July 28, 1999, re cooperating agencies, <http://ceq.hss.doe.gov/nepa/regs/ceqcoop.pdf>. Prior to scoping, lead or joint-lead agencies are designated and they request other agencies, such as tribes, to be cooperating agencies.

<sup>5</sup> See, EPA, <http://www.akforum.com/eProceedings/NEPA.ppt#305,1>, National Environmental Policy Act (NEPA) & Tribal Involvement at Alaska Environmental Forum (2008). ADNR made similar recommendations regarding large mines, and offered the Pogo Mine as an example of the State and 12 tribes maintaining government-to-government relationships.

<sup>6</sup> They can also assist in scoping, as contemplated by NEPA regulations. Further, treating tribes as cooperating agencies also implements Executive Order 13175 and the President’s recent memorandum on tribal consultation (Mem. for Heads of Executive Departments and Agencies, re: Tribal Consultation (Nov. 5, 2009.))

<sup>7</sup> These six tribes are uniquely positioned to address the adequacy or inadequacy of existing subsistence-related information. In *Nondalton Tribal Council, et al., v. State ADNR, et al.*, Case No. 3AN-09-46 CI (3<sup>rd</sup> Jud. Dist., Alaska), these six tribes, AIFMA and TU assert that the Alaska Department of Natural Resources in its current 2005 Bristol Bay Area Plan, which applies to lands at Pebble, failed to update or rely upon its inventory of subsistence use areas, as required by state statute. For purposes of an EIS, federal agencies may need more accurate subsistence-related information than that presently existing in the 2005 Bristol Bay Area Plan.

issue in Pebble-related matters is by members of the tribes who reside in the drainages, and hunt, fish and gather resources there. These six tribes include the largest in the drainages, *i.e.*, the Curyung Tribe, which has about 2400 members. Tribal members are the substantial focus of subsistence studies by agencies and contractors of PLP. Tribal members are likely to bear the direct, indirect and cumulative impacts of governmental decisions related to any proposed Pebble mine, associated facilities, and other reasonably foreseeable events if a mine is permitted.

Moreover, asking these tribes to be cooperating agencies would be particularly appropriate in light of PLP's recent decision to terminate its Technical Working Groups (TWGs), of which there were approximately ten. As you know, they had been composed of federal and state officials who, in an advisory capacity, had sought for years to properly advise PLP as it progressed toward an EIS, including with respect to review PLP's baseline study plans before they were implemented, and to review the results. We understand that difficulties arose between PLP and the agencies with respect to these and other matters. The minutes of the last TWG Steering Committee on October 27, 2009 reflect that TWG members from multiple agencies recommended a TWG on subsistence.<sup>8</sup> PLP's decision to terminate the TWGs, in effect, means that such a group will not exist for purposes of advising PLP prior to submission of applications for permits. Cooperating agency status of the tribes may help to remedy this shortcoming.

**B. These tribes are in a unique position with respect to any alternatives that would propose to permit a Pebble mine.**

We would also like to discuss with you that these six tribes have special knowledge and perspective about the 2005 Bristol Bay Area Plan (2005 BBAP) of the Alaska Department of Natural Resources (ADNR), and are in a unique position with respect to any alternatives that would propose to permit a Pebble mine.

Federal regulations, at 40 CFR § 1506.2(d), provide that to integrate an EIS into state planning processes, an EIS shall discuss any inconsistency of a proposed action with any approved state land use plan; and where inconsistency exists, the EIS should describe the extent to which the federal agency would reconcile its proposed action with the plan. In other words, an EIS on any potential Pebble mine will have to consider and analyze the applicable state land use plan.

In that respect, all alternatives in an EIS that would permit a Pebble mine will be based upon the 2005 BBAP. It is the principal state land use plan presently in effect in the area. It applies to all state-owned lands in the Bristol Bay drainages. These include the Kvichak and Nushagak drainages, which are mostly state-owned lands and which include the state lands that are subject to the Pebble mining claims and most of the potential access corridor to them from Williamsport on Cook Inlet.<sup>9</sup> Speaking generally, the State's area plans essentially perform two

<sup>8</sup> See Minutes, TWG Steering Comm., Oct. 27, 2009, at <http://ADNR.alaska.gov/mlw/mining/largemine/pebble/twg/pebble102709.pdf> (last visited January 27, 2010).

<sup>9</sup> ADNR's 2005 BBAP also applies to state "settlement lands" where employees of PLP and others may be housed.

functions: (1) they classify units of state land according to primary uses, and (2) they adopt guidelines and statements of intent. The classifications, guidelines and statements of intent guide state land use decisions in a particular area for about twenty years after a plan is adopted. Thus, all action alternatives in an EIS that would permit a Pebble mine will be *shaped* by the pertinent land use classifications, guidelines and statements of intent of the applicable state area plan, which is currently the 2005 BBAP. For example, the 2005 BBAP classified state land, and established guidelines and statements of intent, by methods which included:

1. using primarily *marine* criteria, such as whether land is a walrus haulout, to determine whether *inland uplands* qualify for classification as fish and game habitat;
2. *excluding moose and caribou* from the process of designating and classifying land as habitat;
3. having *no land use classification category for subsistence hunting and fishing*, while ADNR has one for *sport hunting and fishing*; and
4. defining recreation as *excluding sport hunting and fishing* for purposes preparing the 2005 BBAP.

As long as the 2005 BBAP is in effect, every alternative in an EIS that would permit a Pebble mine will rest upon such methods of creating the current land classifications, guidelines, and statements of management intent. That will put federal agencies in the position of having to explain in public and on the record, for purposes of 40 CFR § 1506.2(d), why they would entertain federal permit applications to develop state land where the state classifications, guidelines and statements of intent rest upon such methods. To ignore those methods is contrary to 40 CFR § 1506.2(d) and would beg the question of what the classifications, guidelines and statements of intent would be in the absence of the 2005 BBAP. No one can answer that question. Thus, regardless of whether such state methods are lawful under state law, and we believe they are *not*, we doubt that federal or state agencies can engage in the legally required, reasoned decision-making necessary to approve federal or state permits as long as the 2005 BBAP is in place. The 2005 BBAP appears to be fatal from a legal standpoint to an EIS that supports the issuance of permits for Pebble.<sup>10</sup>

The six tribes, AIFMA and TU have sued ADNR in state court to have the current the 2005 BBAP declared unlawful.<sup>11</sup> The case is still its early stages and is undecided. Most of our clients' claims challenge the *methods* that ADNR used to classify state land, and to establish guidelines and statements of intent. These methods, which are addressed in an accompanying enclosure,<sup>12</sup> were applied to state lands at Pebble, to the access corridor, and to areas where Pebble-related settlement may occur. If the litigation is successful, then ADNR will have to develop a new Bristol Bay Area Plan, and any permit applications for a Pebble mine will be delayed. If the litigation is unsuccessful, then the 2005 BBAP will stand unless otherwise revised.

<sup>10</sup> See Briefing Paper, Part II, attached to enclosed letter to Rep. Edgmon.

<sup>11</sup> *Nondalton Tribal Council, et al., v. ADNR, et al.*, Case No. 3AN-09-46 CI (3<sup>rd</sup> J. Dist., Ak).

<sup>12</sup> See, accompanying letter to Rep. Bryce Edgmon and Briefing Paper, Part I, attached thereto.

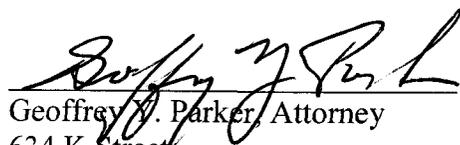
In either event, for purposes of developing alternatives in an EIS, federal agencies would probably benefit from having both ADNR and these tribes as cooperating agencies, because together they have different perspectives about many factual issues related to the 2005 BBAP. These tribes offer views that can supplement those of ADNR, help to develop alternatives, evaluate impacts, and inform the public and decision-makers about Pebble and the applicable area plan. On the other hand, if these tribes are not asked to be cooperating agencies, then federal agencies will be more likely to acquire an incomplete understanding of factual issues related to the 2005 BBAP, such as those described above concerning ADNR's methods of classifying land, and establishing guidelines and statements of intent. Finally, for purposes of developing and evaluating the alternatives required in an adequate EIS, the tribes with assistance of counsel can offer perspectives on the adequacy of current state and federal subsistence laws in the context of whether an increased population in the area on account of a Pebble mine is likely to increase conflicts over fish and game resources.<sup>13</sup>

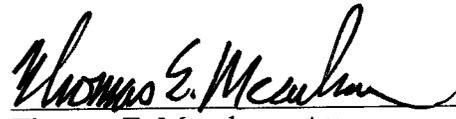
**II. Pursuant to 40 CFR 1501.5(d), our clients may request designation of joint-lead agencies under an interagency agreement that preserves the authority of all federal agencies to refer disputes to CEQ under 40 CFR 1504.**

As said at the outset, all eight of our clients (six tribes, AIFMA and TU) may request, pursuant to 40 CFR 1501.5(d), that joint-lead federal agencies be designated under an interagency agreement that would preserve to each lead or cooperating federal agency its right to refer disputes with another lead or cooperating federal agency to the President's Council on Environmental Quality (CEQ), under 40 CFR 1504. We would appreciate discussing this issue with appropriate Corps and EPA officials.

Thank you for your attention to these matters.

Sincerely yours,

  
Geoffrey V. Parker, Attorney  
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Anchorage, Alaska 99501

  
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cc:

Jack Hobson, President, Nondalton Tribal Council  
Herman Nelson, Sr., President, Koliganek Village Council  
Dennis Andrew, President, New Stuyahok Traditional Council  
Luki Akelkok, President, Ekwok Village Council

<sup>13</sup> See Briefing Paper, Part III, attached to enclosed letter to Rep. Edgmon. Without foreclosing future positions of our clients, we would be less than candid if we did not acknowledge that for the reasons stated in the enclosed letter and its attached briefing paper, these six tribes may support a range of alternatives in a draft EIS that is prepared for public review *only if* each rests upon prior enactment of refuge or critical habitat area legislation by the Alaska legislature.

Thomas Tilden, President, Curyung Tribal Council  
Sergie Chukwak, President, Levelock Village Council  
David Harsila, President, Alaska Independent Fishermen's Cooperative Association.  
Tim Bristol, Alaska Director, Trout Unlimited, Inc.  
Rep. Bryce Edgmon, Chair, Hs. Fisheries Committee, Alaska House of Representatives

**A JOINT LETTER**

**From**

**Nondalton Tribal Council, Koliganik Village Council,  
New Stuyahok Traditional Council, Ekwok Village Council,  
Curyung Tribal Council, Levelock Village Council, and  
Alaska Independent Fishermen's Cooperative Association**

April 23, 2010 (mailed May 21, 2010)

Representative Bryce Edgmon  
Chair, House Fisheries Committee  
Alaska House of Representatives  
716 W. 4th Ave. Suite 390  
Anchorage AK, 99501-2133

Subjects: (1) DNR's 2005 Bristol Bay Area Plan,  
(2) Refuge or Critical Habitat Area legislation.

Dear Representative Edgmon:

As you know, we are plaintiffs in a lawsuit that seeks to have the 2005 Bristol Bay Area Plan (2005 BBAP) of the Alaska Department of Natural Resources (DNR) declared unlawful.<sup>1</sup> The 2005 BBAP applies to state land that could be developed for a potential Pebble mine. The litigation is in its early stages and is still undecided.

Although we are skeptical that a Pebble Mine can be permitted, developed, operated and closed forever in an environmentally safe manner, our concern in this letter, as it is in the lawsuit, is *not* with a Pebble mine directly, but is with DNR. For reasons explained in this letter and its attached briefing paper, DNR's 2005 BBAP makes it difficult, if not impossible, for a reasonable person to conclude that DNR can deal appropriately and in the public interest with a proposed Pebble mine, particularly under the 2005 BBAP. So, today we are taking additional steps.

First, the tribes that are signatory to this letter have government-to-government relations with the United States, recognized in federal law. Through counsel, the tribes have requested that they and the U. S. Army Corps of Engineers and the U. S. Environmental Protection Agency commence discussions about the tribes being cooperating agencies concerning any federal environmental impact statement (EIS) that may be prepared on a proposed Pebble mine.<sup>2</sup> Cooperating agency status may be a vehicle by which federal and state agencies involved in an EIS will benefit from the tribes' perspectives, including that the DNR's 2005 BBAP is an inadequate and unreliable basis for decision-making with respect to habitat, subsistence, and many other public interests in the area. Moreover, the decision by the Pebble Limited Partnership (PLP) to end its Technical Working Groups (TWGs) contributes to the tribes' decision to commence federal-tribal discussions of cooperating agency status. The

<sup>1</sup> *Nondalton Tribal Council, et al. v. State, Department of Natural Resources, et al.*, 3DI-09-46 CI.

<sup>2</sup> See enclosed letter from counsel to the Corps and EPA.

~~PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE~~  
approximately ten TWGs had been composed of federal and state officials who, in an advisory capacity, had sought over several years to review PLP's baseline study plans before they were implemented, and to review the results, in order to properly advise PLP as it progressed toward an EIS. But PLP was not forthcoming. Its decision to end the TWGs implies that federal, state and tribal entities are now likely to face greater informational deficiencies in an EIS than might have occurred otherwise.

Second, because you represent much of the area, we are enclosing two alternative draft bills that would designate most state land in the Nushagak and Kvichak drainages as either a state critical habitat area, or a state fish and game refuge.<sup>3</sup> They are drafted to protect fish and wildlife habitat, and the commercial, subsistence, and recreational uses of fish and game. Both drafts include land covered by a potential Pebble mine. Both would shift most functions of managing most state land in these drainages from DNR to the Alaska Department of Fish and Game (ADF&G).

We are also enclosing a briefing paper which supports doing so. It explains many of our reasons for offering such legislation. These reasons are *independent* of whether or not a Pebble mine can be permitted, operated and closed in an environmentally safe manner.<sup>4</sup>

We are requesting that you, while the legislature is out-of-session, take a leadership role in encouraging, facilitating and participating with us (and those who disagree with us) in public discussions in the communities in the Kvichak and Nushagak drainages on the fundamental question of whether such legislation is the best way to protect fish and wildlife habitat, and the commercial, subsistence, and recreational uses of fish and game, from the risks posed by a potential Pebble mine. The alternative draft bills and the briefing paper will facilitate such discussions. The public deserves opportunities to speak to such legislation. In contrast, any legislation that leaves decision-making with DNR certainly will not rewrite the 2005 BBAP or address the vast array of concerns arising from it.

For legislators and the public to address this situation, we recommend that they familiarize themselves with the function of area plans in general, and the methods that DNR has employed in its 2005 BBAP to facilitate a Pebble mine. Area plans (1) designate primary uses of state land and classify the land accordingly (e.g., as habitat, mineral, recreation, settlement land, etc.); and (2) adopt guidelines and statements of management intent that guide DNR's decisions. The classifications, guidelines and statements of intent guide DNR's decisions, particularly with respect to permitting, for the life of a plan, which is about 20 years, unless it is revised. Designated primary uses take precedence over undesignated or secondary uses. Classifications such as habitat, mineral, recreation, transportation, forestry, grazing, etc. retain land in public ownership. Classifications such as resource management land and settlement land do not carry this requirement.

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<sup>3</sup> If the tribes become cooperating agencies, they may decide to support a range of alternatives in a draft EIS being released to the public *only if* each alternative that would permit a Pebble mine rests upon prior enactment of legislation establishing a refuge or critical habitat area, managed by ADF&G, and covering most state land in the Kvichak and Nushagak drainages, including the land at issue in any proposed Pebble mine.

<sup>4</sup> The reasons stated in the briefing paper are also consistent with the tribes seeking cooperating agency status on an EIS.

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With respect to DNR's 2005 BBAP specifically, it deliberately and directly tilts the playing field to facilitate a Pebble mine, by strategies such as these to reclassify state land:

- DNR's 2005 BBAP uses primarily *marine* criteria, such as whether land is a walrus haulout or an eel grass bed, to identify whether *inland uplands*, such as those at Pebble, qualify for a habitat land classification. No one should support using marine criteria to determine whether inland uplands qualify for classification as habitat.
- DNR's predominantly marine criteria *excluded moose and caribou habitats* from habitat designation, and DNR's implementation of the criteria also *excluded salmon habitat in non-navigable waters* from habitat designation. Everyone knows that moose, caribou and salmon are important for the local communities.
- DNR lacks a land use classification category for land used for *subsistence hunting and fishing*, but DNR has a "public recreation land" classification category that by regulation includes land used for *sport hunting and fishing*. No one should support having a land use classification category for sport fishing and hunting but not for subsistence hunting and fishing.<sup>5</sup>
- DNR's 2005 BBAP then defines "recreation" as *excluding sport hunting and fishing* for purposes of developing the Plan, classifications, guidelines and statements of intent. No one should support excluding sport fishing and hunting from "recreation."<sup>6</sup>
- DNR's 2005 BBAP defines "subsistence uses" for purposes of state land management (not fish and game harvest management) as limited to residents "domiciled in a *rural* area of the state."<sup>7</sup> Regardless of whether this conflicts with *McDowell v. State*, 785 P.2d 1 (Alaska 1989) (which holds that the State cannot limit subsistence benefits to rural residents), this definition puts in an untenable position those legislators who *oppose* a rural preference in the harvest fish and game, and who *support* a proposed Pebble mine proceeding through a permitting process that depends on the 2005 BBAP. They would be *supporting* Pebble mine going through a permitting process that depends in part on "subsistence uses" being defined for purposes of state land management in terms of residents "domiciled in a *rural* area of the state."
- DNR's 2005 BBAP defines "habitat" narrowly as what is necessary to prevent a "*permanent loss*" of a population or of sustained yield of a species. Defining habitat in terms of what is necessary to prevent a "permanent loss" of a population limits habitat

<sup>5</sup> DNR claims that its habitat classifications accommodate subsistence, because the regulatory definition of the habitat classification category, at 11 AAC 55.230, refers to "traditional uses." Regardless of the merits of DNR's claim, the 2005 BBAP reduces the upland acreage classified or co-classified as habitat by 90 percent, from 12 million acres to 768,000 acres, when compared to the former 1984 Bristol Bay Area Plan.

<sup>6</sup> Although the 2005 Plan claims that it protects recreation, this definition begs the question: If sport fishing and hunting are not recreation for purposes of land management, then what are they?

<sup>7</sup> If Pebble mine and related roads occur, then this definition may force non-rural subsistence users to compete on the same lands with rural subsistence users.

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
designations to only what is necessary to *prevent extinction*, from which no recovery of the population can occur. No legislator should support that definition. The Alaska Constitution requires sustained yield management, not management to near-extinction. Further, defining habitat in terms of what is necessary to prevent a “permanent loss” of sustained yield defines habitat in a manner that ignores the conventional definition that “sustained yield” means *annual or periodic sustained yield*.<sup>8</sup> Again, because the Constitution requires sustained yield management, no legislator should support DNR’s definition that would prevent only a “permanent loss” of sustained yield, but would not assure annual or periodic yields on a sustaining basis.

These and other DNR strategies reflected in the 2005 BBAP eliminated existing habitat classifications in a 1984 BBAP on caribou calving grounds at Pebble, on moose wintering areas necessary for a Pebble mine, on the western half of Iliamna Lake (important for rearing sockeye salmon, and into which part of the Pebble mine would drain), on non-navigable anadromous waters in the vicinity of Pebble and elsewhere, and led to reclassifying land in the area of a Pebble mine, from co-classifications that included “habitat,” to solely “mineral.” In effect, the area of Pebble, which is a hundred miles from the coast, *lost its entire habitat classification* because it produces caribou, moose, salmon, and other fish and wildlife, but has no walrus.

Moreover, because area plans guide land management, these and other strategies *lie at the heart* of DNR’s permitting process for a potential Pebble mine. Hence, any state legislation which would leave management of state land in the Kvichak and Nushagak drainages with DNR – even with higher standards for permitting a Pebble mine – will *not* be effective for two reasons. First, such legislation would not remedy DNR’s 2005 BBAP. Second, the 2005 BBAP reflects a “development above all” institutional mindset that implies that DNR may attempt to circumvent or urge repeal of higher standards or prohibitions if such legislation were enacted.

We believe that as Alaskans and their legislators learn what DNR single-mindedly accomplished in the 2005 BBAP, most will eventually support legislation to establish a refuge or a critical habitat area for most of the state land in the Kvichak and Nushagak drainages, including at the Pebble claims, and that most people will conclude, regardless of whatever the law is, that a Pebble mine should never be permitted based on the 2005 BBAP. We believe that most will conclude, with respect to the 2005 BBAP, that it is:

- (1) *absurd* to use primarily *marine* criteria to determine whether *inland uplands* qualify as fish and game habitat, and to *exclude moose and caribou*, and *salmon in non-navigable waters*, from the process of habitat designation;
- (2) *divisive* to have *no land use classification category for subsistence hunting and fishing*, when DNR has one for *sport hunting and fishing*; and
- (3) *ludicrous* to define recreation as *excluding sport hunting and fishing*.

Similarly, when those who support a Pebble mine learn that the 2005 BBAP appears to be legally *fatal* to any federal environmental impact statement that would support the issuance of permits for Pebble,<sup>9</sup> we believe that they, too, will be equally disappointed in DNR’s actions to date. Moreover, those who support a proposed Pebble mine going through a permitting process

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<sup>8</sup> See, AS 38.04.910(12), 16.05.255(k)(5), 41.17.950(27).

<sup>9</sup> See Briefing Paper, Part II, attached.

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that depends in part on the 2005 BBAP will necessarily have to defend all its shortcomings described above.

Our enclosed draft bills contain provisions that address a potential Pebble mine. Because most people in Southwest Alaska oppose a Pebble mine, both alternative drafts would prohibit metallic sulfide mining (as Pebble mine would be) within the designated area. And because some people, mostly elsewhere in Alaska, want to see a proposed Pebble mine go through some sort of a permitting process to see if it should be developed, the drafts also contain a provision that would render the Pebble mine prohibition inoperative, if the courts determine that the prohibition would be a legislative “taking” requiring compensation to the Pebble claimants. In that event, strict permitting provisions would apply and be implemented not by DNR, but by ADF&G.

We chose this approach for four reasons. First, it provides to the public, and to legislators, an *opportunity* to speak to an outright prohibition of metallic sulfide mining in much of the Kvichak and Nushagak drainages, versus a conventional compatibility test. Second, it ends the *pointless* political debate over what only a *court* can decide – *i.e.*, whether some clause in legislation is or is not a “taking” of private property (*i.e.*, mining claims) that would require compensation. Third, it lets the PLP (which has asserted that various legislative provisions would result in a taking) argue its case where it *belongs* – *i.e.*, before a court. If PLP were to prevail in court, then a severability clause and provisions for permitting would be triggered, thereby avoiding the taking and the compensation obligation. Fourth, the central provisions of our draft alternative bills (like any modern refuge statute) are (1) the *purposes* of protecting habitat and commercial, subsistence and sport uses of fish and game, and (2) a *compatibility test* that would allow other uses, such as a Pebble mine, to be permitted, but only if compatible with those purposes.<sup>10</sup> Because PLP claims that it will not develop a Pebble mine if it would be incompatible with protecting habitat or commercial, subsistence or sport uses of fish and game,<sup>11</sup> our alternative bills would give PLP an opportunity to support those purposes and a compatibility test, while continuing to oppose an outright ban of metallic sulfide mining in the affected area.

In weighing all this, state legislators and other officials might find it helpful to consider two matters. First, by the inherent nature of this situation, federal laws, regulations, authorities, interests, and obligations (including to Native people) are involved. Today, those of us who represent the undersigned federally-recognized tribes are seeking, through the government-to-government relationships that exist between Alaska tribes and the United States, to invoke those relationships in order to resolve some of these issues. Second, separate from doing so, ample reasons exist for the State to enact refuge or critical habitat area legislation that are independent from whether a Pebble mine can be permitted, developed, operated, and permanently closed in an environmentally safe manner. Many of these reasons are set forth in the attached briefing paper, including the inadequacy of DNR’s 2005 BBAP and the likelihood that it will be legally fatal to a future EIS on a potential Pebble mine.

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<sup>10</sup> State game refuge and critical habitat area statutes contain compatibility tests. *See e.g.*, AS 16.20.036(c) (Susitna Flats State Game Refuge); AS 16.20.037(b)(3) (Minto Flats State Game Refuge); AS 16.20.033(b)(3) (Yakataga State Game Refuge); AS 16.20.041(b)(3) (McNeil River State Game Refuge); AS 16.20.500 (applies to all critical habitat areas); *see also* 16 U.S.C. § 668dd(d) (2000) (compatibility test applies to all national wildlife refuges), .

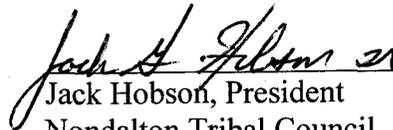
<sup>11</sup> *See*, Briefing Paper, Part V, attached.

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
To reiterate, for purposes of Alaskans in general, residents of the Bristol Bay drainages specifically, and the Alaska legislature, our immediate concern is that the public should be allowed to *speak* to the enclosed draft legislation. We are asking you to help lead the discussion while the legislature is out-of-session. We appreciate your work, that of the House Fisheries Committee which you chair, and that of many other legislators. We know that these issues are not easy. We look forward to hearing from you, and to working together.

Sincerely yours,

Date: \_\_\_\_\_

5/2/2010



Jack Hobson, President  
Nondalton Tribal Council  
P.O. Box 49  
Nondalton, Alaska 99640

- enclosures: (1) Briefing Paper  
(2) Alternative draft legislation to designate either a state fish and game refuge or a state critical habitat area; and  
(3) Copy: letter to Corps and EPA re cooperating agency status and related matters.

INTERNAL DELIBERATIVE AND/OR PRIVILEGED DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
DISCLOSURE AUTHORIZED ONLY TO CONGRESS FOR OVERSIGHT PURPOSES IN RESPONSE TO SUBPOENA

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Sincerely yours,

Date: 5/04/10



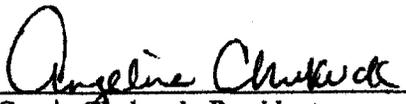
Dennis Andrew, President  
New Stuyahok Traditional Council  
P.O. Box 49  
New Stuyahok, Alaska 99636

enclosures: (1) Briefing Paper  
(2) Alternative draft legislation to designate either a state fish and game refuge or a state critical habitat area; and  
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Sincerely yours,

Date: 5-10-10

  
for Sergie Chukwak, President Vice  
Levelock Village Council President  
P.O. Box 70  
Levelock, Alaska 99625

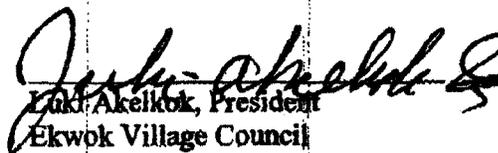
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Sincerely yours,

Date: 5/11/10



Luke Akekkok, President  
Ekwok Village Council  
P.O. Box 70  
Ekwok, Alaska 99580

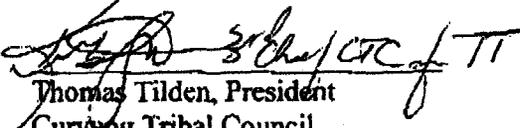
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Sincerely yours,

Date: 5/12/2010

  
Thomas Tilden, President  
Curyung Tribal Council  
P.O. Box 216  
531 D Street  
Dillingham, Alaska 99576

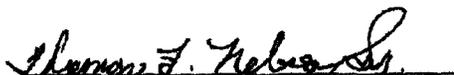
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Sincerely yours,

Date: 5-13-2010

  
Herman Nelson, Sr., President  
Koliganek Village Council  
P.O. Box 5057  
Koliganek, Alaska 99576

- enclosures: (1) Briefing Paper  
(2) Alternative draft legislation to designate either a state fish and game refuge or a state critical habitat area; and  
(3) Copy: letter to Corps and EPA re cooperating agency status and related matters.

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Sincerely yours,

Date: 5-10-2010



David Harsila, President  
Alaska Independent Fishermen's Marketing  
Association  
P.O. Box 60131  
Seattle, WA 98160

enclosures: (1) Briefing Paper  
(2) Alternative draft legislation to designate either a state fish and game refuge or a state critical habitat area; and  
(3) Copy: letter to Corps and EPA re cooperating agency status and related matters.

**Reasons to Support Legislation That Designates Most State Land in The Kvichak and Nushagak Drainages as a State Fish and Game Refuge, or State Critical Habitat Area, Independent of Whether a Pebble Mine can be Permitted and Operated in an Environmentally Safe Manner**

Prepared by Legal Counsel<sup>1</sup> for:

**Nondalton Tribal Council, Koliganek Village Council,  
New Stuyahok Traditional Council, Ekwok Village Council,  
Curyung Tribal Council, Levelock Village Council, and  
Alaska Independent Fishermen's Cooperative Association**

**February 25, 2010**

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Legislation to designate most state land in the Nushagak and Kvichak drainages as either a state fish and game refuge, or state critical habitat area:

(1) would protect fish and wildlife habitat and commercial, subsistence, and recreational uses of fish and game;

(2) would not prohibit a Pebble mine *per se* (unless expressly so provided), but would have that effect if the mine were *incompatible* with protecting fish and wildlife habitat and commercial, subsistence, and recreational uses of fish and game; and

(3) would *shift* most functions of managing most state land in these drainages from the Alaska Department of Natural Resources (DNR) to the Alaska Department of Fish and Game (ADF&G).

This briefing paper states reasons to support such legislation that are *independent* of the current debate over whether a Pebble mine can be permitted, developed, operated and closed in a manner that is environmentally safe forever. In other words, this paper identifies reasons to support such legislation that are *independent* of the Pebble Partnership's standard response that Alaskans should wait to see a final plan for a proposed Pebble mine.

**I. The legislature should support refuge or critical habitat legislation because the legislature should *not* support permitting a Pebble mine under DNR's 2005 Bristol Bay Area Plan.**

DNR adopts area plans for state lands pursuant to statutes at AS 38.04 and regulations at 11 AAC Chap. 55. The plans must be based on an inventory of resources and uses. The plans divide the state land into "planning units," designate the "*primary uses*" of each, and DNR then issues a land classification order that converts these designated uses to corresponding land *classifications*. DNR has eighteen land classification categories established and defined in

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<sup>1</sup> Geoffrey Y. Parker, 634 K St., Anchorage, AK 99501, ph. 907-222-6859; and Thomas E. Meacham, 9500 Prospect Dr., Anchorage, AK 99507, ph. 907-346-1077. Questions and comments are welcome.

regulation at 11 AAC 55.050 -- .230, e.g., mineral, fish and wildlife habitat, public recreation, forestry, agricultural, settlement land, etc. The area plans also adopt general and unit-specific *guidelines* and *statements of management intent*. All classifications are initially multiple use. However, when an undesignated use is in irreconcilable conflict with a classified, designated use, then the designated use prevails. Any unit of land can have up to three *co-classifications*. The classifications, guidelines and statements of intent guide DNR's land management during the 20-year life of the plan.

DNR's 2005 Bristol Bay Area Plan (2005 BBAP) applies to 12 million acres of state lands in the Bristol Bay drainages, including where Pebble and associated infrastructure might be located.<sup>2</sup> The previous 1984 BBAP<sup>3</sup> had co-classified nearly the entire 12 million acres as habitat, usually as co-classifications that were as habitat and recreational land, or as habitat, recreational, and mineral land or oil and gas land. In effect, co-classifying for habitat and minerals meant that mineral development had to be compatible with habitat. In contrast, DNR's 2005 BBAP drastically reduces to about 768,000 acres (by about 94 percent) the acreage previously classified or co-classified as habitat. The 2005 BBAP reclassified the land at, and in the vicinity of, the Pebble mine site from co-classifications under the 1984 BBAP as habitat and public recreation land, or as habitat, public recreation and mineral land, to *solely* mineral land under the 2005 BBAP.

DNR's 2005 BBAP does so by employing about two dozen strategies that were intended to, and do, solely facilitate a Pebble mine.<sup>4</sup> The following Subparts I, A through E, address some of these strategies.

**A. DNR's 2005 BBAP uses an *ad hoc* definition "habitat" and a predominantly marine-related list of "fish and wildlife categories" to identify and designate limited inland uplands that might qualify as habitat; and the list omits moose and caribou.**

DNR's land use planning regulations contain an adopted definition of the "wildlife habitat land" classification category, as follows:

Land classified wildlife habitat is land which is primarily valuable for (1) fish and wildlife resource production, whether existing or through habitat manipulation, to supply sufficient numbers or a diversity of species to support commercial, recreational, or traditional uses on an optimum sustained yield basis; or (2) a

<sup>2</sup> DNR's 2005 BBAP is available at <http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm> (last visited January 6, 2010).

<sup>3</sup> DNR's 1984 BBAP, except for its accompanying maps of habitat types and subsistence use areas for 31 villages and communities, is also available at <http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm> (last visited January 6, 2010). Most co-classifications in the 1984 Area Plan were for habitat and public recreation in conjunction with oil and gas or mineral classifications.

<sup>4</sup> *Nondalton Tribal Council, et al. v. State, Department of Natural Resources, et al.*, 3DI-09-46 CI.

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unique or rare assemblage of a single or multiple species of regional, state, or  
national significance.<sup>5</sup>

However, DNR's 2005 BBAP discards this adopted definition, and instead uses the following *ad hoc*, unadopted definition of the "wildlife habitat" designation and the following list of "fish and wildlife categories," to identify, designate and classify land as "habitat:"

These habitats are defined as Areas [sic] that serve as a concentrated use area for fish and wildlife species during a sensitive life history stage where alteration of the habitat and/or human disturbance could result in a permanent loss of a population or sustained yield of the species. Fish and wildlife categories used to identify "Ha" (Habitat) designations in this plan include the following:

- Anadromous fish spawning and rearing areas in fresh water or brackish intertidal zones
- *Estuaries* important for rearing or schooling of anadromous fish
- *Kelp beds covering large areas that are important marine nurseries*
- *Pacific herring spawning and rearing concentrations areas*
- *Eel grass beds that are important marine nurseries*
- Waterfowl and/or *shorebird concentration areas*
- *Seabird breeding habitat* within each colony area of 500 birds and a two-mile radius around major breeding colonies (more than 20,000 birds)
- Bald eagle nest sites or nest site areas, and known concentrations
- *Sea lion haulouts and rookeries*
- *Harbor seal haulouts and rookeries*
- *Walrus haulouts and rookeries*
- *Sea otter pupping areas*
- Bear concentration areas (including concentrations by season)
- Important wildlife migration corridors, including nearshore migration routes.<sup>6</sup>

On its face, this *ad hoc* definition and list of "fish and wildlife habitat" categories –

(1) uses a predominantly *marine related* list of fish and wildlife categories to designate habitat on *inland uplands*, so that most uplands, including at Pebble which is more than a hundred miles from the coast, will no longer qualify as habitat under DNR's 2005 BBAP;

(2) *omits* moose and caribou from the list;

(3) departs from the regulatory definition by defining "habitat" so narrowly as to be what is necessary to prevent a "*permanent loss*" of a population or of sustained yield of a species. Defining habitat in terms of what is necessary to prevent a "*permanent loss*" of a population essentially defines habitat in terms of what is necessary to *prevent extinction* of that population, and from which no recovery of the population would be possible. Defining habitat in terms of what is necessary to prevent a "*permanent loss*" of sustained yield defines habitat in terms that ignore conventional definitions of "*sustained yield*" as meaning an *annual or periodic sustained yield*.<sup>7</sup>

<sup>5</sup> 11 AAC 55.230.

<sup>6</sup> 2005 BBAP, at p. 2-9. (Italics added)

<sup>7</sup> See, AS 38.04.910(12), 16.05.255(k)(5), 41.17.950(27).

Under DNR's 2005 BBAP and its *ad hoc* definition and list, important fish and wildlife life habitat areas have lost their earlier habitat classifications under the 1984 BBAP. These areas lost include:

- (1) the western half of Iliamna Lake and its bed. The Lake is one of Alaska's most important sockeye salmon rearing lakes, and into which Upper Talarik Creek flows from the eastern portion of the Pebble claims;
- (2) most anadromous fish waters that are not navigable;
- (3) most non-anadromous fish habitat that is not already within legislatively designated conservation areas;
- (4) the vast majority of moose winter habitat on state land east of the Mulchatna River corridor and north of Iliamna Lake (i.e., within an area of roughly 2.5 to 3 million acres of state land), including the Upper Talarik Creek drainage, the area of Nikabuna Lakes, the area southeast of Tutna Lake, and areas along the road corridor to Pebble. ADF&G had previously identified all of these lands as "essential" moose habitat in the 1984 BBAP. The 2005 BBAP reclassifies most of these lands as mineral, settlement or resource management lands.
- (5) the caribou calving areas of the Mulchatna caribou herd at and surrounding the Pebble claims and in the upper Mulchatna drainage. ADF&G had previously identified these lands as "essential" caribou habitat, in the 1984 BBAP. The 2005 BBAP reclassifies these lands as mineral or resource management lands.
- (6) spring-, summer-, and fall-use habitat for moose along the proposed road corridor to the Pebble claims. ADF&G had previously identified this moose habitat as "important," in the 1984 BBAP. DNR's 2005 BBAP reclassifies these lands as settlement or resource management lands.
- (7) several million acres of caribou winter-use habitat in the Nushagak and Kvichak drainages outside major river corridors of the Nushagak system. ADF&G had previously identified this as "essential" habitat, in the 1984 BBAP. DNR's 2005 BBAP reclassifies these lands as resource management land.

Therefore, when legislators (or state or federal officials) consider issues that involve the permitting of a Pebble mine under DNR's current 2005 BBAP, it will raise these questions:

- *Can DNR explain its use of a predominantly marine-related list of fish and wildlife categories for purposes of determining whether inland uplands, many miles from the coast, should be identified and classified as habitat? DNR's 2005 BBAP puts legislators in a position where they may have to decide whether they support permitting a Pebble mine based on DNR's use of marine criteria to eliminate prior habitat classifications on inland uplands, such as at Pebble.*
- *Can DNR explain its use of a list of "fish and wildlife categories" that omits moose and caribou habitats, particularly essential caribou calving grounds and moose winter use areas? DNR's 2005 BBAP puts legislators in a position where they may have to decide whether they support permitting a Pebble mine based on DNR's use of a list of "fish and wildlife categories" that omits moose and caribou.*

- PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE
- Can DNR explain its definition of habitat that limits it to that which is necessary to prevent “a permanent loss” of a population or sustained yield of the species? DNR’s 2005 BBAP puts legislators in a position where they may have to decide whether they support permitting a Pebble mine based on DNR’s definition of habitat as that which is necessary only to prevent extinction or a permanent loss of sustained yield.

**B. DNR lacks a subsistence land classification category for *subsistence hunting and fishing*, but has a “public recreation land” classification category that includes land used for sport hunting and sport fishing.**

DNR’s land classification regulations at 11 AAC Chap. 55 provide a “public recreation land” classification category<sup>8</sup> that includes land used for *sport hunting and fishing*, but these regulations *lack* a parallel subsistence land classification category for land important for *subsistence hunting and fishing*. In practical terms, DNR’s disparate treatment of subsistence is this: A sport hunter or fisher can go to a public meeting on a draft Bristol Bay Area Plan and urge that sport hunting and sport fishing are “primary uses” of some particular unit of state land (e.g., the Koktuli River and Upper Talarik Creek drainages in the vicinity of the Pebble claims) and that they should be classified as “public recreation land.” However, a subsistence hunter or fisher who goes to the same meeting can not say that the same lands should also be classified or co-classified as subsistence land, because DNR *has no subsistence land classification category*.

DNR now claims, in on-going litigation,<sup>9</sup> that its “wildlife habitat land” classification category accommodates subsistence. As said above, 11 AAC 55.230 defines that category as land “primarily valuable for ... fish and wildlife resource production ... to supply sufficient numbers or a diversity of species to commercial, recreational and traditional uses on an optimum sustained yield basis.” DNR’s claim that fish and wildlife habitat “production areas” are “the equivalent of “harvest areas” is belied by multiple facts:

(1) The list of “fish and wildlife categories,” which the 2005 BBAP uses to identify habitat, does *not even mention* subsistence. That list also omits moose and caribou, which are important for subsistence.

(2) The 2005 BBAP reduces upland acreage classified as habitat by *94 percent*, from about 12 million acres co-classified as such in the 1984 BBAP, down to about 768,000 acres in the 2005 BBAP. Thus, if DNR really uses the habitat classification to accommodate subsistence, then DNR has reduced the acreage where DNR can claim it does so by *94 percent*. DNR did so without the 2005 BBAP ever telling people of Southwest Alaska that DNR’s habitat classification was in fact the only land classified to accommodate subsistence.

(3) The 2005 BBAP does not designate subsistence as a primary use on *any uplands*. Instead, all “harvest area” designations in the 2005 BBAP are on *marine tidelands and offshore submerged land*, as if subsistence of up-river villages somehow occurs in marine waters.

(4) *Nothing* in the 2005 BBAP advised rural villagers that they should understand that if they wanted to protect a subsistence area, they needed to support a “habitat” classification to do so. DNR never imposed this leap of logic on sport hunters and fishers, because it is obvious that the “public recreation land” classification category, by its definition and by implication, protects sport

<sup>8</sup> 11 AAC 55.160.

<sup>9</sup> *Nondalton Tribal Council, et al. v. State, Department of Natural Resources, et al.*, 3DI-09-46 CI.

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
hunting and fishing. In other words, DNR imposes upon villagers what it does not impose on urban residents – *i.e.*, the villagers must *infer* that a habitat designation is for subsistence, while urban residents do not have to infer that a public recreation designation is for recreation, because that is obvious.

(5) If DNR’s assertion that it uses the “wildlife habitat” land category to “accommodate” subsistence were credible, then DNR would have *no reason* to include sport fishing and hunting in its public recreation land category, because the habitat category is defined in terms of land that produces fish and game for “commercial, recreational and traditional uses.”

Therefore, when legislators (or state or federal officials) consider issues that involve the permitting of a Pebble mine under DNR’s current 2005 BBAP, it will raise these additional questions:

- *Can DNR explain why its regulations have a “public recreation land” classification category for sport hunting and fishing, but have no parallel land classification category for subsistence hunting and fishing? DNR’s 2005 BBAP puts legislators in a position where they may have to decide whether they support permitting a Pebble mine based on a lack of a subsistence land use classification category for subsistence hunting and fishing, while DNR has a “public recreation land” category for sport hunting and fishing.*
- *If DNR uses habitat classifications to “accommodate” subsistence, then can DNR explain why its list of “fish and wildlife categories used to identify” habitat” lands does not mention subsistence?*
- *Can DNR explain why it makes Native villagers in Southwest Alaska infer that DNR allegedly uses habitat classifications to “accommodate” subsistence, when DNR never imposes upon urban residents any equivalent obligation with respect to sport hunting and sport fishing?*
- *In particular, can DNR explain, to the satisfaction of legislators from rural Alaska, DNR’s lack of a subsistence land use classification category?*

**C. DNR’s 2005 BBAP uses an *ad hoc* definition of “recreation” that expressly excludes sport hunting and sport fishing.**

Although DNR’s adopted land use planning regulations include a “public recreation land” classification category, and define it as including land used for sport hunting and fishing,<sup>10</sup> DNR’s 2005 BBAP, p. A-11, uses an unadopted, *ad hoc* definition of “recreation” as follows:

**Recreation.** Any activity or structure intended for recreational purposes, including but not limited to hiking, camping, boating, fishing, and sightseeing. “Recreation” does not refer to subsistence or *sport hunting and fishing*.  
[Underscoring original; italics added]

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<sup>10</sup> 11 AAC 55.160.

~~PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE~~  
The following example demonstrates the effect. The 2005 BBAP, p. 3-175, contains this statement of management intent for part of the Pebble planning units: "Impacts to dispersed recreation along Talarik Creek should also be avoided." Because the 2005 BBAP defines "recreation" as excluding sport hunting and fishing, these activities are excluded from this statement of intent, and thus would not be protected from adverse impacts.

Sport fishing and sport hunting are the most common recreational uses of the Bristol Bay drainages. Although portions of the 2005 BBAP specifically address (or in some places even seek to protect) sport fishing and sport hunting, DNR's general definition excludes them from "recreation," and thus operates as a device for DNR to ignore adverse impacts that a Pebble mine may have on sport fishing and sport hunting.

Therefore, when legislators (or state or federal officials) consider issues that involve the permitting of a Pebble mine under DNR's current 2005 BBAP, it will raise these additional questions:

- *Can DNR explain its definition of "recreation" that excludes sport hunting and sport fishing from recreation?* DNR's 2005 BBAP puts legislators in a position where they may have to decide whether they support permitting Pebble based on DNR's definition of "recreation" as specifically excluding sport hunting and sport fishing.
- *If sport hunting and sport fishing are not recreation, then what are they?*
- *In particular, can DNR explain to the satisfaction of urban legislators why "recreation" does not include sport hunting or fishing?*

**D. DNR's 2005 BBAP makes habitat, subsistence and recreation "prohibited uses" whenever they irreconcilably conflict with mining or mineral exploration on 9.4 million acres of state land in the Bristol Bay drainages.**

DNR's 2005 BBAP, at pages 3-5, treats mining (which it defines as including mineral exploration),<sup>11</sup> as a "co-designated use" on all state land open to mineral entry, which is almost the entire 12 million acres. The 2005 BBAP employs an unadopted, *ad hoc* definition of "designated use" (at p. A-3), as follows:

**Designated Use.** An allowed use of major importance in a particular management unit. Activities in the unit will be managed to encourage, develop, or protect this use. \* \* \*

Thus, DNR's 2005 BBAP makes mining and mineral exploration a "designated use" to be encouraged, developed and protected *on almost the entire twelve million upland acres within the BBAP*, regardless of what any inventory may say about minerals being present or not.

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<sup>11</sup> The 2005 BBAP (p. A-8) defines "Mining" as "Any . . . activity for commercial exploration and recovery of minerals . . ."

Moreover, this includes 9.4 million acres that have no other designated use.<sup>12</sup> Subsistence, recreation and habitat are merely undesignated uses on these 9.4 million acres. However, it is important to recognize that under the 2005 BBAP, a designated use *prohibits* an undesignated use if the undesignated use “conflicts with the management intent, designated primary or secondary uses, or management guideline” applicable to the land.<sup>13</sup> Thus, on these 9.4 million acres, DNR’s 2005 BBAP allows the undesignated uses of subsistence, recreation and habitat to continue only so long as they are compatible with mining and mineral exploration. The 2005 BBAP transforms subsistence, recreation and habitat (including its production of salmon, moose, caribou, and other fish and wildlife) into “*prohibited uses*” whenever they conflict with mining or mineral exploration on these 9.4 million acres.

Therefore, when legislators (or state or federal officials) consider issues that involve the permitting of a Pebble mine under DNR’s current 2005 BBAP, it will raise these additional questions:

- *Can DNR satisfactorily explain its decision to make mining and mere mineral exploration a designated use on almost all of the 12 million acres of state land in the Bristol Bay drainages, when no statutorily required inventory of resources appears to support such a broad designation?*<sup>14</sup> DNR’s 2005 BBAP puts legislators in a position where they may have to explain why mining and mineral exploration receive area-wide status as a “designated use,” when habitat, subsistence, and recreation, which in fact are much more area-wide, do not deserve area-wide status as “designated uses.”
- *Can DNR explain its decision that subsistence, recreation and habitat must be treated as “prohibited uses” anywhere that they are in irreconcilable conflict with mining (or mere mineral exploration) on the above described 9.4 million acres?*

**II. The legislature should support refuge or critical habitat legislation, because DNR’s 2005 Bristol Bay Area Plan appears to be fatal to any federal environmental impact statement that would support issuance of permits for a Pebble mine.**

A Pebble mine will require federal permits. The possible issuance of these permits will trigger an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA). NEPA regulations provide:

(d) To better integrate environmental impact statements *into State or local planning processes*, statements *shall discuss any inconsistency of a proposed action with any approved State or local plan and laws* (whether or not federally sanc-

<sup>12</sup> These 9.4 million acres are classified as “resource management land.”

<sup>13</sup> 2005 BBAP, p. A-10, defining “prohibited use”; *see also id.* at pp. 2-2 – 2-3, 3-2, and 11 AAC 55.040(c).

<sup>14</sup> This point cannot be overemphasized. By law, agencies must engage in reasoned decision-making. It is not reasonable to assume that valuable minerals are found on all 12 million acres of state land in the Bristol Bay drainages.

tioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.<sup>15</sup>

Presently, under the 2005 BBAP, the only way that any application for permit would arrive in front of any federal, state or local agency is if the land remains classified as *solely mineral land*, because any other basis will require a new Bristol Bay Area Plan. All alternatives in an EIS that would permit a Pebble mine under the 2005 BBAP must be based upon the land at Pebble being classified solely as *mineral land* by the 2005 BBAP. As long as the 2005 BBAP remains in effect, an EIS will face the following problem:

If the EIS recommends an alternative that would permit a Pebble mine, then the EIS would necessarily be *consistent* with the 2005 BBAP with respect to the land at Pebble being classified solely as mineral land (and presumably with respect to many matters involving DNR's inventory, land classifications, statements of intent, or guidelines in the 2005 BBAP). But federal regulations at 40 CFR § 1501(b) also require that federal procedures on an EIS –

must *insure* that environmental information is *available to public officials and citizens* before decisions are made and before actions are taken. The information must be of *high quality*. *Accurate scientific analysis, expert agency comments, and public scrutiny are essential* to implementing NEPA.<sup>16</sup>

The EIS must *insure* that information about the methods that DNR employed in the 2005 BBAP to reclassify land, including at Pebble, is *available* to the public and to other agencies. Thus, the draft EIS released to the public and other agencies is legally bound to disclose that:

- (1) DNR's 2005 BBAP uses a predominantly *marine*-related list of fish and wildlife categories to designate *inland upland* habitat;
- (2) DNR's 2005 BBAP *omits* moose and caribou from the list of fish and wildlife categories used to designate habitat;
- (3) DNR's 2005 BBAP limits habitat to that which is necessary to prevent *extinction* instead of that which is necessary to supply all user groups on a sustained yield basis;
- (4) DNR's 2005 BBAP defines recreation to *exclude sport hunting and sport fishing* for purposes of developing the 2005 BBAP including its land classifications, guidelines and statements of management intent;
- (5) DNR has *no* subsistence use classification category;
- (6) DNR failed to maintain and rely upon a current inventory of uses, particularly subsistence uses, in developing its 2005 BBAP; and
- (7) DNR's 2005 BBAP engages in other legally-questionable methods that are at issue in *Nondalton Tribal Council, et al. v. DNR*.

Moreover, the last thing a federal agency should intend to do is ignore its obligation to disclose the problems that DNR has created in its 2005 BBAP – because to do so will make those problems grounds for a legal challenge to the final EIS.

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<sup>15</sup> 40 CFR § 1506.2(d) (italics added).

<sup>16</sup> 40 CFR § 1501(b) (italics added).

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In other words, if the EIS were to rely on the land at Pebble being classified as solely mineral land by the 2005 BBAP, then the EIS would be *consistent* with the 2005 BBAP, but the EIS would not be legally defensible. It would have to *unreasonably* rely on each of the above DNR actions and inconsistencies, and the EIS would have to disclose that it does so. Hence, the 2005 BBAP is fatal to an EIS that would permit Pebble under the terms of the 2005 BBAP, including land classification of the Pebble area as solely mineral land. Only the “no-action alternative” would remain.<sup>17</sup> Under the no-action alternative, no permits would be issued, at least until DNR revises the Bristol Bay Area Plan.<sup>18</sup>

Thus, for state legislators, any effort to permit a Pebble mine under DNR’s current 2005 BBAP is again likely to raise in the EIS process all of the questions which are raised, above.

**III. The legislature should support refuge or critical habitat legislation because a Pebble mine may necessitate changes in federal and state subsistence laws that will drive the state and federal government further apart.**

The Pebble Limited Partnership predicts that the mine will require several thousand workers to build it, and a thousand workers to operate it. This increased activity will bring additional residents to the area in other roles, also. Even if mining permit stipulations could protect fish and wildlife habitat, significant increases in the number of local rural residents, in access demands, and in secondary development are likely to increase competition for subsistence resources. A Pebble mine may increase pressure (which already exists) to revise federal subsistence law to be protect only Alaska Native people, and to apply it more broadly than only on federal land (*i. e.*, to Native corporation lands also). Doing so would drive state and federal governments further apart on subsistence law.<sup>19</sup>

Most of the central provisions of State and federal subsistence laws were drafted nearly thirty years ago. Both provide two “tiers” of a subsistence preference (16 U.S.C. § 3114; AS 16.05.258), but they differ with respect to who can participate. Federal law limits subsistence on federal lands to *rural* Alaska residents. State law allows *all* Alaskans to qualify, preliminarily,

<sup>17</sup> Every EIS must contain a “no action alternative.” 40 CFR 1502.14(d).

<sup>18</sup> Federal agencies do not determine land classifications, guidelines and statements of management intent under state law. It should now be obvious to supporters of a Pebble mine that DNR’s 2005 BBAP has created problems for the Pebble Partnership, and for federal and state agencies that will prepare and participate in the EIS process.

<sup>19</sup> Congress probably could adopt a “Native only” subsistence provision under the Indian Powers clauses of the US Constitution, but the Alaska legislature cannot do so under the Alaska Constitution. This distinction between federal and state constitutional powers may create pressure on Congress to redefine subsistence as for “Natives only” and then perhaps to protect and regulate subsistence on both federal and Native lands. This would be very divisive among state residents, but a proposed Pebble mine is likely to add to pressures to do so. The only alternative to such a course may be state legislation that establishes a state fish and game refuge or critical habitat area on most state lands in the Kvichak and Nushagak drainages. Such legislation would have to be carefully drafted. Its probably would have to be drafted to (1) protect habitat and commercial, subsistence and recreational uses, *including* “productivity” for subsistence users, and (2) allow a Pebble mine only if compatible with these purposes.

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for subsistence on non-federal lands. Under both schemes, when the total harvest by subsistence and other users of a fish or game stock exceeds sustained yield, the Tier I preference restricts or eliminates nonsubsistence users. When the subsistence harvest alone exceeds sustained yield, the Tier II preference is triggered and subsistence is restricted by statutory criteria that allocate subsistence opportunities. On federal lands, 16 U.S.C. § 3114 allocates subsistence opportunities by three criteria: (1) customary and direct dependence on the populations as the mainstay of livelihood; (2) local residency; and (3) availability of alternative resources. The State, however, must avoid local residency criteria as being unconstitutional under the Alaska Constitution. These distinctions in who can hunt and fish in particular situations have divided Alaskans and are known colloquially as the “subsistence dilemma.”

Pebble mine, and all agencies involved in an EIS on Pebble mine, are likely to be caught upon the horns of this dilemma, because the Bristol Bay drainages (unlike locations of other large mines in Alaska) are the source of world-class fish and game resources (e.g., salmon, trout, char, grayling, pike, lake trout, caribou, moose, and bears) that attract users locally, regionally, nationally, and internationally. No other large Alaskan mine is located in a region that does so. Because of this distinction, Pebble and associated development are likely to increase the number of new local rural residents, visitors from Alaska and perhaps elsewhere, and secondary development.<sup>21</sup> Because of the pattern of land ownership, new local residents are likely to settle in the vicinity of Iliamna, Newhalen and Nondalton. However, their uses of lands and resources will reach beyond, to state lands in the Kvichak and Nushagak drainages (and to private land, including Native land, with and without permission) where state subsistence law applies, and to federal land (Lake Clark and Katmai national parks and preserves, and BLM lands) where federal subsistence law applies. The Pebble Partnership may restrict fishing or hunting by employees while at the mine site, but it cannot limit the development of private land, or the activities of new local residents who are either not its employees, or are visitors. Even well-intentioned restrictions on access to protect subsistence uses of resources tend to be transitory and ineffective (e.g., the Dalton Highway, formerly “the North Slope Haul Road” is now open to public use).

With respect to federal law, the *new* local residents will be *rural* residents for purposes of subsistence in federal parks and preserves and BLM lands. They will compete with *current* rural residents and visitors. This has implications for the EIS and Tier I and Tier II subsistence preferences under state and federal subsistence laws. First, as the *total* number of rural residents increases, the Federal Subsistence Board is likely to restrict or eliminate sport hunting in the federal Lake Clark and Katmai Preserves where sport hunting has been allowed. Second, when subsistence demand of all (new and current) rural residents surpasses sustained yield of a fish or game population (most likely a game population) on federal land, some rural residents will be disqualified under the criteria at 16 U.S.C. § 3114. However, the local-residency criterion will not be particularly effective, because new and current rural residents will *all* be “local rural residents.” The first and third criteria – *i.e.*, (1) customary and direct dependence as the mainstay

<sup>20</sup> *McDowell v. State*, 785 P.2d 1 (Ak. 1989)(Alaska constitution bars State from limiting subsistence to rural residents).

<sup>21</sup> For reasons not addressed here, additional visitors may not result in more commerce, because resource and industrial development may alter recreational trip durations, expenses, activities and visitor demographics.

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of livelihood; and (3) availability of alternative resources – will disqualify some subsistence users on federal lands, not unlike the disqualification that occurs under the State’s divisive and controversial Tier II hunts. Hence, *current* rural residents may experience increased competition, diminished subsistence opportunity, and disqualification on federal lands, because of an influx of *new* rural residents.<sup>22</sup>

With respect to state subsistence law, conflicts are likely to be more intense because all Alaska residents qualify for subsistence on nonfederal lands. Some game populations, such as Mulchatna caribou and Nushagak moose, may have to be managed as Tier II state subsistence hunts, in which all sport hunters and many subsistence hunters would be excluded.

Therefore, when legislators consider issues that involve the permitting of a Pebble mine under DNR’s current 2005 BBAP, it will raise this additional question:

- *Is Pebble mine worth the further division among Alaskans that will arise from increased pressure to make federal subsistence law “Native only” and applicable to federal and Native lands?*

**IV. The legislature should support refuge or critical habitat legislation because the economic production from fish and game in the Kvichak and Nushagak drainages surpasses that from all other refuges in the United States.**

Duffield et al. estimate that total direct expenditures/sales in the Alaskan regional economy resulting from commercial, recreational, subsistence and nonconsumptive use of fish and wildlife in the Bristol Bay drainages were approximately \$324 million in 2005.<sup>23</sup> By way of comparison, the U. S. Fish and Wildlife Service has estimated that total direct expenditures/sales in the regional economies from consumptive and nonconsumptive use of fish and wildlife in all 548 national wildlife refuges in the nation totaled almost \$1.7 billion in 2006.<sup>24</sup> Thus, the regional expenditures and sales derived from fish and wildlife of the Bristol Bay drainages is equal to approximately 20 percent of the total regional expenditures and sales derived from all of the 548 national wildlife refuges in the United States.

The Kvichak drainage is historically the most productive for sockeye salmon, and therefore the most economically productive; and the Nushagak drainage is historically the most productive for other salmon species.<sup>25</sup> Although not all of the fish-and-wildlife-related

<sup>22</sup> None of this implies that impacts of population are limited to subsistence. For reasons not addressed here, commercial and recreational fishing may also suffer impacts arising from increased population.

<sup>23</sup> See Duffield et al., *Economics of Wild Salmon Watersheds: Bristol Bay, Alaska* 15 at [http://www.housemajority.org/coms/hfsh/trout\\_unlimited\\_report.pdf](http://www.housemajority.org/coms/hfsh/trout_unlimited_report.pdf) (Feb. 2007) (last visited Jan. 6, 2010).

<sup>24</sup> See Carver & Caudill, USFWS, Div. of Economics, *Banking on Nature 2006: The Economic Benefits to Local Communities of National Wildlife Refuge Visitation* ES-ii (2007), <http://www.fws.gov/refuges/policyMakers/BankingOnNature.html>.

<sup>25</sup> ALASKA DEP’T OF FISH AND GAME, *SOCKEYE SALMON* [hereinafter *SOCKEYE SALMON*], <http://www.adfg.state.ak.us/pubs/notebook/fish/sockeye.php> (1994); R. ERIC MINARD, *EFFORT*

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expenditures and sales in the Bristol Bay drainages are attributable to the Kvichak and Nushagak drainages, they appear to surpass the economic production of every other state and federal refuge in the United States. The reason is that the Kvichak and Nushagak drainages produce salmon in sustainable commercial quantities.

In addition, measuring expenditures and sales does not capture the net economic value of subsistence.<sup>26</sup> Duffield estimates that subsistence harvest of fish and game accounts for 2.4 million pounds of subsistence harvest per year for an average of 315 pounds per person annually,<sup>27</sup> and that this results in an estimated net economic value annually of between \$78 and \$143 million.<sup>28</sup>

When legislators consider issues that involve the permitting of a Pebble mine under DNR's current 2005 BBAP, it will raise this additional question:

- *Why has the legislature to date designated most state refuges and critical habitat areas (mostly for the purpose of game protection) in areas that do not produce nearly as much economic benefit from wildlife as the Kvichak and Nushagak drainages, which the legislature has yet to designate and protect?*

**V. The legislature should support refuge or critical habitat legislation because the Pebble Limited Partnership has, in effect, embraced the central provisions of such legislation.**

The central provisions of modern refuge statutes, including Alaska's, are the "refuge purposes" and the "compatibility test." Refuge purposes generally are to protect fish and wildlife, their habitats and public uses of fish and game, particularly subsistence, commercial and sport fishing, hunting, etc. The compatibility test allows non-refuge uses, such as mining on pre-existing mining claims, but only if compatible with refuge purposes.<sup>29</sup> Under Alaska's state refuge statutes, ADF&G is the chief land manager, and DNR retains subordinate authority. Alaska statutes creating critical habitat areas are similar.

In 2007, Senator Gary Stevens introduced the "Jay Hammond Refuge Bill" (SB 67, 25<sup>th</sup> Alaska Legislature). Thereafter, the Pebble Limited Partnership announced its "core principles" for developing the mine. The Partnership declared:

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AND CATCH STATISTICS FOR THE CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*) SPORT FISHERY IN THE LOWER NUSHAGAK RIVER, 1986, 1 FISHERY DATA SERIES NO. 15, available at <http://www.sf.adfg.state.ak.us/FedAidPDFs/fds-015.pdf> (Oct. 1987).

<sup>26</sup> See Duffield et al., at 15 – 16.

<sup>27</sup> Duffield et al., at 84 – 85.

<sup>28</sup> Duffield et al., at 107 – 108.

<sup>29</sup> AS 16.20.036(c) (Susitna Flats St. Refuge); AS 16.20.037(b)(3) (Minto Flats St. Refuge); AS 16.20.033(b)(3) (Yakataga St. Refuge); AS 16.20.041(b)(3) (McNeil River St. Refuge); 16 U.S.C. § 668dd(d) (compatibility test for national wildlife refuges).

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"If a mine cannot be designed that protects the water, fisheries, and wildlife resources of Bristol Bay, it will not be built."<sup>30</sup>

"Pebble will be . . . engineered to protect all things Alaskans value. Or it won't be built at all."<sup>31</sup>

"Fish come first. We simply won't develop Pebble if it harms commercial, subsistence or sport fishing in this remarkable region."<sup>32</sup>

"We simply will not develop a mine that damages Alaska's fish and wildlife."<sup>33</sup>

"We will not be associated with the development of a mine that damages Alaska's Bristol Bay fishery and wildlife, or those in the communities whose livelihoods depend on those resources. If the mine cannot be developed in a way that provides proper protections, we will not build it."<sup>34</sup>

"If the mine cannot be planned in a way that provides proper protections, it should not be built."<sup>35</sup>

Such statements clearly appear to support the purposes of protecting habitat and public uses of fish and game, and pledge to not build a Pebble mine if it is incompatible with those purposes. Therefore the Pebble Partnership is on record as supporting what would be the purposes and compatibility test of any refuge legislation.

Moreover, such statements have meaning only if they have legal effect. To oppose such legislation, the Partnership would have to support the issuance of permits under DNR's 2005 BBAP that –

- (a) lacks a subsistence land use classification category for subsistence hunting and fishing, when DNR has a "public recreation land" classification category that includes sport hunting and sport fishing;
- (b) omits moose and caribou from the process of designating habitat;
- (c) uses a predominantly marine-related list of "fish and wildlife categories" to limit the designation of inland uplands habitat, including at and in the vicinity of Pebble;
- (d) extinguishes prior habitat classifications on (i) the western half of Iliamna Lake into which the Pebble claims drain, (ii) the caribou calving grounds of the Mulchatna herd which

<sup>30</sup> PEBBLE PARTNERSHIP, SETTING EACH PIECE IN PLACE (quoting C. Carroll, CEO, Anglo American), <http://www.pebblepartnership.com/files/5%20Principles%20Mosaic.pdf>.

<sup>31</sup> PEBBLE PARTNERSHIP, NOT YOUR GRANDFATHER'S COPPER MINE, <http://www.pebblepartnership.com/files/Pebble%204%20Science.pdf>.

<sup>32</sup> PEBBLE PARTNERSHIP, FISH COME FIRST, <http://www.pebblepartnership.com/files/Pebble%203%20Fish.pdf>.

<sup>33</sup> *Id.* (quoting C. Carroll, CEO, Anglo American).

<sup>34</sup> C. Carroll, Editorial, *Pebble Partnership Promises Responsible Development*, ANCHORAGE DAILY NEWS, 12-1-07, <http://dwb.adn.com/opinion/compass/story/9490777p-9401615c.html>.

<sup>35</sup> C. Carroll, CEO, Anglo American plc, speech to Resource Development Council, in Anchorage, Alaska (10-23-07) [http://www.pebblepartnership.com/related\\_media/speech.pdf](http://www.pebblepartnership.com/related_media/speech.pdf).

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include the Pebble claims, and (iii) all essential moose winter habitat proximate to the Pebble claims;

(e) limits habitat to that necessary to prevent *extinction* and a “*permanent loss*” of sustained yield, instead of that which is necessary to *supply and continue* sustained yield; and

(f) defines “recreation” to *exclude sport hunting and fishing* for purposes of developing the 2005 BBAP, including land classification at and in the vicinity of Pebble.

The Partnership may contest other elements of refuge or critical habitat area legislation (such as provisions that would ban or otherwise address metallic sulfide mining), but it does not appear to be in a position to oppose the central provisions of such legislation, because the Partnership has already, in effect, embraced them through its numerous public statements..

### CONCLUSION

Unless the legislature enacts new law, any permits issued by DNR will depend on statutes replete with wide-open agency discretion,<sup>36</sup> and the demonstrably deficient 2005 BBAP, which –

(1) uses predominantly marine criteria to designate habitat on inland uplands;

(2) omits moose and caribou from those criteria;

(3) limits habitat to that which is necessary to prevent extinction;

(4) extinguishes prior habitat classifications on the western half of Iliamna Lake into which the Pebble claims drain, on the caribou calving grounds of the Mulchatna herd which include the Pebble claims, and on all essential moose winter habitat proximate to the Pebble claims;

(5) has no subsistence land use classification category when there is one for sport hunting and sport fishing; but then defines recreation to exclude sport hunting and sport fishing.

Legislators, and for that matter all Alaskans, should consider whether those are appropriate methods for permitting a Pebble mine, and for that matter whether DNR is the appropriate land management agency for most state land in the Kvichak and Nushagak drainages.

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<sup>36</sup> See Parker, et al., Pebble Mine: Fish, Minerals and Testing the Limits of Alaska’s Large Mine Permitting Process, Alaska Law Rev., Vol. XXV No. 1 (June 2008) 21-31.

BY

Introduced:

Referred:

**A BILL  
FOR AN ACT ENTITLED**

**"An Act establishing the Jay Hammond Alaskan Heritage State Fish and Game Refuge and conserving fish, game, public lands and public uses of them in Southwest Alaska."**

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

\* **Sec. 1.** AS 16.20 is amended by adding a new section to read:

**Sec. 16.20.045. Jay Hammond Alaskan Heritage State Fish and Game**

**Refuge.** (a) The state owned surface and subsurface land and water and interests therein, including those that may be acquired by the state in the future, within the following described boundaries are designated as the Jay Hammond Alaskan Heritage State Fish and Game Refuge: Beginning at the SE corner T. 7S., R. 54W., S. M., at the boundary of Wood-Tikchik State Park, which is the True Point of Beginning; thence northerly following that boundary in a northerly, easterly, and westerly direction to a point where said boundary first intersects the drainage divide between the Nushagak River and Kuskokwim River drainages; thence in an easterly, northerly, westerly and southerly direction following that drainage divide to the boundary of Lake Clark National Park and Preserve; thence in a southerly, easterly, westerly, and northerly direction following that boundary to the boundary of the Lake and Peninsula Borough; thence southerly and westerly following that Borough boundary to the SW corner of T. 5S., R. 26W., S. M.; thence southerly to the SW corner of T. 6S., R. 26W., S. M.; thence west to the Borough boundary; thence southerly and westerly following that boundary to the boundary of Katmai National Park and Preserve; thence northerly, westerly, southerly and easterly following the boundary of that Park and Preserve to the township line separating Township 14 from Township 15, S. M.; thence west following that township line to the SW corner of T. 14S., R. 42W., S. M.; thence north to the NW corner of T. 13S., R. 42W., S. M.; thence west to the SW corner of T. 12S., R. 42W., S. M.; thence north to the SE corner of Section 24, T. 11S., R. 43W., S. M.; thence northerly, westerly and southerly, following the boundary of land in Native ownership as of the date of enactment of this Act to the SW corner of T. 11S, R. 45W., S. M.; thence west to the SW corner of T. 11S., R. 52W., S. M.; thence north to the NE corner of Section 24, T. 11S., R. 53W., S. M.; thence west to the NW corner of Section 19, T. 11S, R. 53W., S. M.; thence north to the NW corner of Section 30, T. 10S., R. 53W., S. M.; thence east to the NE corner of Section 30, T. 10S., R. 53W., S. M.; thence north to the NE corner of Section 7, T. 10S., R. 53W., S. M.; thence westerly to the SW corner of Section 4, T. 10S., R. 54W., S. M.; thence northerly and easterly following the boundary of land in Native ownership as of the date of enactment of this Act to the SW corner of Section 36,

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T. 8S., R. 53W., S. M.; thence east to the SW corner of T. 8S., R. 52W., S. M.; thence north to the NW corner of T. 8S., R. 52W., S. M.; and thence west to the True Point of Beginning; but excluding from the above-described tract of land any private land including Native-owned land, and further excluding state-owned land that has previously been improved or dedicated for schools, roads, airports, utilities, public facilities, materials sites, or other governmental purposes.

(b) The refuge shall be managed to achieve the following primary purposes:

- (1) protect fish and wildlife habitat and populations, including salmon and trout spawning and rearing habitats, and caribou, moose, and brown bear habitats; and
- (2) protect public uses of fish, wildlife and their habitat, particularly for subsistence, commercial, and recreational fishing, hunting, trapping, viewing, and public recreation in a high quality natural environment.

(c) The use or disposition by the state of other natural resources may be permitted only if such activities are compatible with the purposes stated in subsections (b)(1) and (b)(2).

(d) Subject to valid existing rights, the lands and waters of the refuge are closed under authority of AS 38.05.185 - 38.05.275 to mineral entry. State land or water within the refuge may not be sold, transferred or exchanged without legislative approval.

(e)(1) Within the refuge, no state agency may issue a permit for a metallic sulfide mining operation. In the event that a court of competent jurisdiction issues a final decision holding that this paragraph takes without compensation any mining claims that, if developed, would result in a metallic sulfide mining operation, then appropriate state agencies may issue permits under paragraphs (2) through (4) of this subsection, to avoid an uncompensated taking.

(2) A state agency may issue permits, authorizations and approvals necessary for a metallic sulfide mining operation only if:

(A) the agency uses the precautionary approach defined by this section, and the commissioner of fish and game concurs with how the agency used the precautionary approach; and

(B) the applicant proves by clear and convincing evidence, and the commissioner of fish and game finds, that –

(i) a comparable metallic sulfide mine of similar size and in a similar environment has operated for at least ten years without adverse impacts to fish or water quality and quantity, and that a comparable mine of similar size and in a similar environment has been closed for at least ten years without adverse impacts to fish and water quality and quantity;

(ii) the proposed mining operation – (a) is compatible with the purposes in (b)(1) and (b)(2); (b) will not directly, indirectly or cumulatively adversely affect water, fish or wildlife exceeding existing baseline conditions; (c) will not contribute significantly to increased pressure on fish and game resources or competition among user groups; and (d) will not adversely affect the opportunities of persons who have engaged in subsistence, commercial, or sport use of fish and game, trapping, or the lodge, guiding and tourism industries to continue to do so without diminished productivity; and

(iii) the proposed mining operation will not require long-term or perpetual care or storage or disposal of mining wastes within the refuge

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boundary. Such a finding at the time of permitting shall not prevent the state from requiring long-term or perpetual care, monitoring, or removal of mining wastes from the refuge, if such requirements become necessary during construction and operation or after closure of the mine.

(3) Notwithstanding any other law, before the commissioner makes any decision under paragraph (e)(2), and before any state agency issues a permit, lease, authorization or approval for a metallic sulfide mining operation or associated facilities within the refuge, the agency shall:

(A) issue public notice and afford opportunities for public comment for a period of at least 90 days;

(B) respond in writing to comments received, and provide scientific or technical support for its responses; and

(C) provide for administrative appeals from final agency decisions, under AS 44.62.330-.630. An aggrieved person may appeal administratively and thereafter seek judicial review, or may file a complaint in Superior Court without exhausting administrative remedies. Any final agency decision shall be stayed during administrative or judicial proceedings.

(4) In this subsection –

(A) “long-term or perpetual care” (i) means the deliberate dewatering of surface or ground water, in a reasonably consistent manner over a period of time, to prevent water pollution, including acid mine or acid rock drainage, from entering or occurring in waters used by salmon; and (ii) includes any unbonded or uninsured water treatment, including passive means such as lime;

(B) “metallic sulfide mining operation” means a mining operation in which sulfides and iron are present in mined, processed or excavated rock, including pyrite, chalcopyrite and bornite, or is for (i) antimony, arsenic, copper, iron, lead, mercury, molybdenum, nickel, palladium, platinum, silver, or zinc; or (ii) gold associated with any mineral listed in (i) of this definition, but this definition does not include placer mining operations or the methods of placer mining.

(C) “precautionary approach” means that agency decisions shall –

(i) err on the side of conservation and the public interest when evidence is uncertain, by using conservative assumptions;

(ii) shift burdens of proof to the applicant;

(iii) use prudent foresight taking into account uncertainties in fish, wildlife and habitat management and the biological, social, cultural, and economic risks;

(iv) consider the needs of future generations and avoid potentially irreversible changes;

(v) undertake prior identification of undesirable outcomes and of measures that will avoid undesirable outcomes or correct them promptly should they occur;

(vi) initiate any necessary corrective measure without delay and prompt achievement of the measure's purpose, on a time scale not exceeding five years, which is approximately the generation time of most salmon species; and

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(vii) where the impact of resource use is uncertain, but likely presents a reasonably measurable risk to sustained yield, priority shall be given to conserving the productive capacity of the resource.

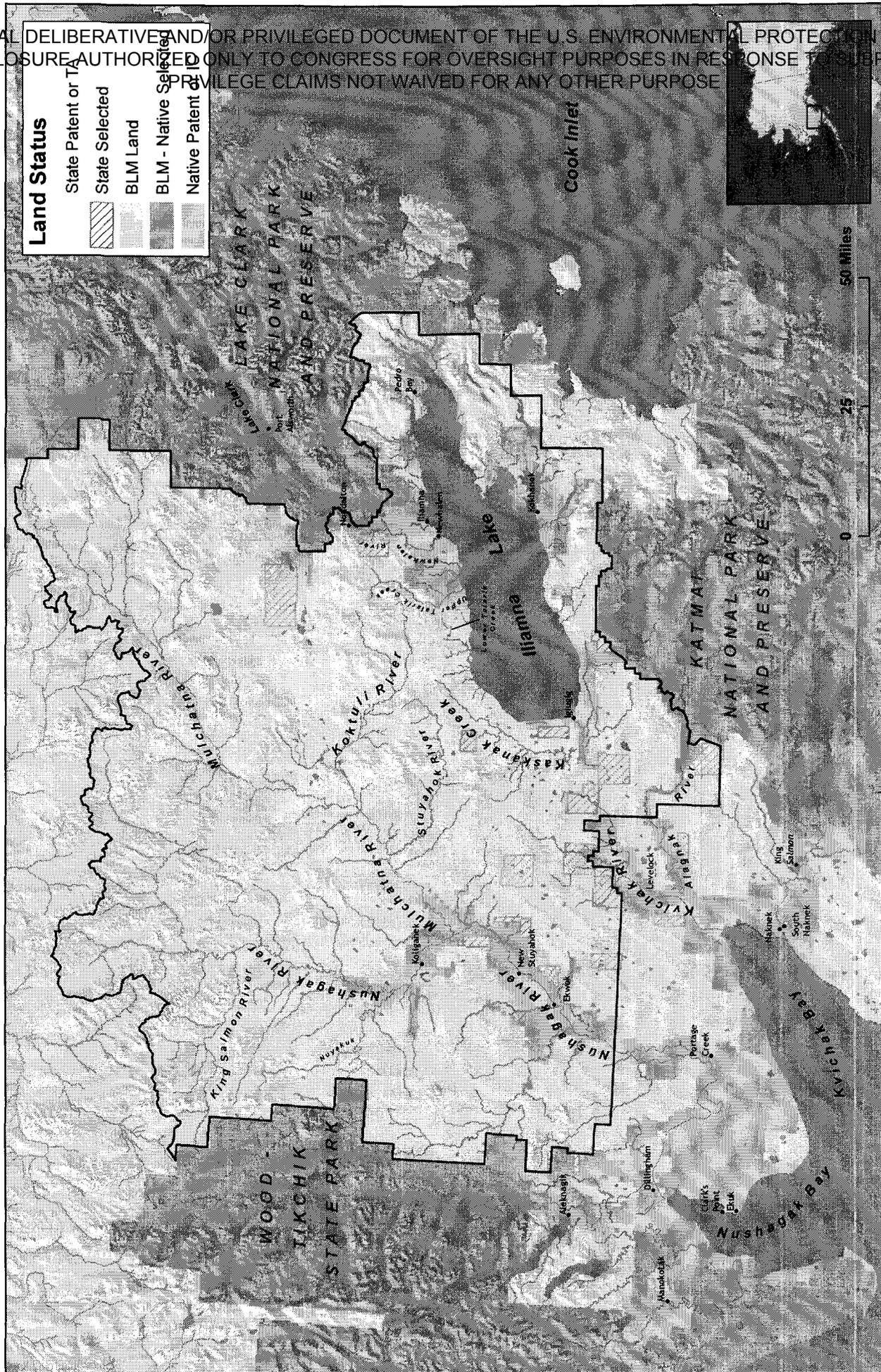
(f) Except as is provided in (a) - (e) of this section, the Department of Fish and Game and the Department of Natural Resources shall exercise their respective authorities over the refuge consistent with a management plan prepared by the Department of Fish and Game, in consultation with the Department of Natural Resources.

(g) The state may not acquire by eminent domain private land, including Native-owned land, located within the boundary of the refuge. The state may acquire private and other public land lying within the refuge boundary by purchase, exchange, or otherwise from willing owners for inclusion in the refuge. Municipally owned land within the refuge boundary may be included in the refuge for management purposes by mutual agreement between the municipal landowner and the Department of Fish and Game.

(h) Establishment of the refuge shall not impair valid Native allotment applications under the Alaska Native Allotment Act, 43 U.S.C. Sections 270-1 through 270-3, pending with the United States before the effective date of this Act, and shall not impair reasonable surface access to allotment tracts and to other private real property lying within the exterior boundaries of the refuge.

(i) The Department of Fish and Game shall allow fishing, hunting, and trapping within the refuge under state and federal statutes and regulations. The department shall also permit support activities normally associated with recreational, guided, and subsistence hunting, and sport, commercial and subsistence fishing, and trapping, where reasonably necessary and consistent with the purposes of this section, including aircraft support, light (ATV) off-road vehicle use, and landing strips. The department may establish a citizens' advisory commission to make recommendations to it regarding management of the refuge.

\* **Sec. 2.** The uncodified law of the State of Alaska is amended by adding a new section to read:  
INITIAL MANAGEMENT PLAN. The Department of Fish and Game shall complete the initial management plan for the Jay Hammond Alaskan Heritage State Fish and Game Refuge to be prepared under AS 16.20.045(f) within two years after the effective date of this Act.



BY

Introduced:

Referred:

**A BILL  
FOR AN ACT ENTITLED**

**"An Act establishing the Jay Hammond Alaskan Heritage Critical Habitat Area and conserving fish, game, public lands and public uses of them in Southwest Alaska."**

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

\* **Sec. 1.** AS 16.20 is amended by adding a new section to read:

**Sec. 16.20.635. Jay Hammond Alaskan Heritage Critical Habitat Area established.** (a) The state owned surface and subsurface land and water and interests therein, including those that may be acquired by the state in the future, within the following described boundaries are designated as the Jay Hammond Alaskan Heritage State Fish and Game Refuge: Beginning at the SE corner T. 7S., R. 54W., S. M., at the boundary of Wood-Tikchik State Park, which is the True Point of Beginning; thence northerly following that boundary in a northerly, easterly, and westerly direction to a point where said boundary first intersects the drainage divide between the Nushagak River and Kuskokwim River drainages; thence in an easterly, northerly, westerly and southerly direction following that drainage divide to the boundary of Lake Clark National Park and Preserve; thence in a southerly, easterly, westerly, and northerly direction following that boundary to the boundary of the Lake and Peninsula Borough; thence southerly and westerly following that Borough boundary to the SW corner of T. 5S., R. 26W., S. M.; thence southerly to the SW corner of T. 6S., R. 26W., S. M.; thence west to the Borough boundary; thence southerly and westerly following that boundary to the boundary of Katmai National Park and Preserve; thence northerly, westerly, southerly and easterly following the boundary of that Park and Preserve to the township line separating Township 14 from Township 15, S. M.; thence west following that township line to the SW corner of T. 14S., R. 42W., S. M.; thence north to the NW corner of T. 13S., R. 42W., S. M.; thence west to the SW corner of T. 12S., R. 42W., S. M.; thence north to the SE corner of Section 24, T. 11S., R. 43W., S. M.; thence northerly, westerly and southerly, following the boundary of land in Native ownership as of the date of enactment of this Act to the SW corner of T. 11S, R. 45W., S. M.; thence west to the SW corner of T. 11S., R. 52W., S. M.; thence north to the NE corner of Section 24, T. 11S., R. 53W., S. M.; thence west to the NW corner of Section 19, T. 11S, R. 53W., S. M.; thence north to the NW corner of Section 30, T. 10S., R. 53W., S. M.; thence east to the NE corner of Section 30, T. 10S., R. 53W., S. M.; thence north to the NE corner of Section 7, T. 10S., R. 53W., S. M.; thence westerly to the SW corner of Section 4, T. 10S., R. 54W., S. M.; thence northerly and easterly following the boundary of land in Native ownership as of the date of enactment of this Act to the SW corner of Section 36,

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T. 8S., R. 53W., S. M.; thence east to the SW corner of T. 8S., R. 52W., S. M.; thence north to the NW corner of T. 8S., R. 52W., S. M.; and thence west to the True Point of Beginning; but excluding from the above-described tract of land any private land including Native-owned land, and further excluding state-owned land that has previously been improved or dedicated for schools, roads, airports, utilities, public facilities, materials sites, or other governmental purposes.

(b)(1) Within the above-described area, no state agency may issue a permit for a metallic sulfide mining operation. In the event that a court of competent jurisdiction issues a final decision holding that this paragraph takes without compensation any mining claims that, if developed, would result in a metallic sulfide mining operation, then appropriate state agencies may issue permits under paragraphs (2) through (4) of this subsection, to avoid an uncompensated taking.

(2) A state agency may issue permits, authorizations and approvals necessary for a metallic sulfide mining operation only if:

(A) the agency uses the precautionary approach defined by this section, and the commissioner of fish and game concurs with how the agency used the precautionary approach; and

(B) the applicant proves by clear and convincing evidence, and the commissioner of fish and game finds, that –

(i) a comparable metallic sulfide mine of similar size and in a similar environment has operated for at least ten years without adverse impacts to fish or water quality and quantity, and that a comparable mine of similar size and in a similar environment has been closed for at least ten years without adverse impacts to fish and water quality and quantity;

(ii) the proposed mining operation – (a) is compatible under AS 16.20.500 with the Critical Habitat Area; (b) will not directly, indirectly or cumulatively adversely affect water, fish or wildlife exceeding existing baseline conditions; (c) will not contribute significantly to increased pressure on fish and game resources or competition among user groups; and (d) will not adversely affect the opportunities of persons who have engaged in subsistence, commercial, or sport use of fish and game, trapping, or the lodge, guiding and tourism industries to continue to do so without diminished productivity; and

(iii) the proposed mining operation will not require long-term or perpetual care or storage or disposal of mining wastes within the Critical Habitat Area boundary. Such a finding at the time of permitting shall not prevent the state from requiring long-term or perpetual care, monitoring, or removal of mining wastes from the area, if such requirements become necessary during construction and operation or after closure of the mine.

(3) Notwithstanding any other law, before the commissioner makes any decision under paragraph (e)(2), and before any state agency issues a permit, lease, authorization or approval for a metallic sulfide mining operation or associated facilities within the refuge, the agency shall:

(A) issue public notice and afford opportunities for public comment for a period of at least 90 days;

(B) respond in writing to comments received, and provide scientific or technical support for its responses; and

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(C) provide for administrative appeals from final agency decisions, under AS 44.62.330-.630. An aggrieved person may appeal administratively and thereafter seek judicial review, or may file a complaint in Superior Court without exhausting administrative remedies. Any final agency decision shall be stayed during administrative or judicial proceedings.

(4) In this subsection –

(A) “long-term or perpetual care” (i) means the deliberate dewatering of surface or ground water, in a reasonably consistent manner over a period of time, to prevent water pollution, including acid mine or acid rock drainage, from entering or occurring in waters used by salmon; and (ii) includes any unbonded or uninsured water treatment, including passive means such as lime;

(B) “metallic sulfide mining operation” means a mining operation in which sulfides and iron are present in mined, processed or excavated rock, including pyrite, chalcopyrite and bornite, or is for (i) antimony, arsenic, copper, iron, lead, mercury, molybdenum, nickel, palladium, platinum, silver, or zinc; or (ii) gold associated with any mineral listed in (i) of this definition, but this definition does not include placer mining operations or the methods of placer mining.

(C) “precautionary approach” means that agency decisions shall –

(i) err on the side of conservation and the public interest when evidence is uncertain, by using conservative assumptions;

(ii) shift burdens of proof to the applicant;

(iii) use prudent foresight taking into account uncertainties in fish, wildlife and habitat management and the biological, social, cultural, and economic risks;

(iv) consider the needs of future generations and avoid potentially irreversible changes;

(v) undertake prior identification of undesirable outcomes and of measures that will avoid undesirable outcomes or correct them promptly should they occur;

(vi) initiate any necessary corrective measure without delay and prompt achievement of the measure's purpose, on a time scale not exceeding five years, which is approximately the generation time of most salmon species; and

(vii) where the impact of resource use is uncertain, but likely presents a reasonably measurable risk to sustained yield, priority shall be given to conserving the productive capacity of the resource.

(c) The state may not acquire by eminent domain private land, including Native-owned land, located within the boundary of the Critical Habitat Area. The state may acquire private and other public land lying within the Critical Habitat Area boundary by purchase, exchange, or otherwise from willing owners for inclusion in the area. Municipally owned land within the Critical Habitat Area boundary may be included in the Critical Habitat Area by mutual agreement between the municipal landowner and the Department of Fish and Game.

(d) Establishment of the Critical Habitat Area shall not impair valid Native allotment applications under the Alaska Native Allotment Act, 43 U.S.C. Sections 270-1 through 270-3, pending with the United States before the effective date of this Act, and

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shall not impair reasonable surface access to allotment tracts and to other private real property lying within the exterior boundaries of the area.

(e) The Department of Fish and Game shall allow fishing, hunting, and trapping within the Critical Habitat Area under state and federal statutes and regulations. The department shall also permit support activities normally associated with recreational, guided, and subsistence hunting, and sport, commercial and subsistence fishing, and trapping, where reasonably necessary and consistent with the purposes of this section, including aircraft support, light (ATV) off-road vehicle use, and landing strips. The department may establish a citizens' advisory commission to make recommendations to it regarding management of the area.

\* **Sec. 2.** The uncodified law of the State of Alaska is amended by adding a new section to read:  
INITIAL MANAGEMENT PLAN. The Department of Fish and Game shall complete the initial management plan for the Jay Hammond Alaskan Heritage Critical Habitat Area within two years after the effective date of this Act.

**A JOINT LETTER**

From Six Federally-recognized Tribes  
in the Kvichak and Nushagak River Drainages of Southwest Alaska:  
Nondalton Tribal Council, Koliganik Village Council, New Stuyahok Traditional Council,  
Ekwok Village Council, Curyung Tribal Council, Levelock Village Council

May 2, 2010 (mailed May 21, 2010)

Lisa P. Jackson, Administrator  
U.S. Environmental Protection Agency, Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Dennis J. McLerran, Regional Administrator  
U.S. Environmental Protection Agency, Region 10  
Regional Administrator's Office, RA-140  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

Re: Tribes request that EPA initiate a public process under Section 404(c) of the Clean Water Act, to protect waters, wetlands, fish, wildlife, fisheries, subsistence and public uses in the Kvichak and Nushagak drainages and Bristol Bay of Southwest Alaska from metallic sulfide mining, including a potential Pebble mine.

Dear Ms. Jackson and Mr. McLerran:

Our federally recognized tribes, from the Kvichak and Nushagak river drainages of southwest Alaska, have government-to-government relations with the United States, and are represented by the undersigned tribal councils. We are writing with assistance of counsel.

Section 404(c) of the Clean Water Act authorizes EPA to prohibit or restrict the discharge of dredge or fill material, including mine wastes, at defined sites in waters of the United States, including wetlands, whenever EPA determines, after notice and opportunity for hearing, that the use of such sites for disposal would have an "unacceptable adverse effect" on fisheries, wildlife, municipal water supplies or recreational areas. EPA may do so *prior* to applications for permits to discharge such material. 40 CFR 231.1(a). "Unacceptable adverse effect" is defined as:

impact on an aquatic or wetland ecosystem which is *likely* to result in significant degradation of municipal water supplies (including surface or ground water) or significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines (40 CFR Part 230).<sup>1</sup>

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<sup>1</sup> 40 CFR 231.2(e) (*italics added*). The purposes of the 404(b)(1) Guidelines are "to restore and *maintain* the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material," and to implement Congressional policies

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We request that EPA initiate a 404(c) public process to identify wetlands and waters in the *Kvichak and Nushagak river drainages* of southwest Alaska, where discharges associated with potential *large scale metallic sulfide mining*, could be prohibited or restricted due to such effects. This initial scope would include the Pebble deposit (which straddles a divide between these drainages) and other metallic sulfide deposits in the area of that deposit. (We understand that Kemuk Mountain may be the site of another metallic sulfide deposit.) During such a public process, some members of the public may urge a broader or narrower scope. The “scope” of a 404(c) process is one of many issues that should be resolved through a public process. The deposits in the area of the Pebble claims, which precipitate this situation, should be included.

We are addressing this to both of you because: (1) 40 CFR 231.3(a) provides that a regional administrator makes the decision of whether to initiate a 404(c) public process; (2) in this instance, initiating a 404(c) process effectuates three of EPA’s national priorities,<sup>2</sup> and three of EPA’s regional priorities;<sup>3</sup> (3) initiating a 404(c) process promotes EPA’s goal that decisions be based on science, law, transparency, and stronger EPA oversight;<sup>4</sup> and (4) doing so is consistent with EPA’s national priorities of increased oversight of mineral processing<sup>5</sup> and

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expressed in the Clean Water Act. The Guidelines establish a rebuttable presumption against allowing any discharge unless it can be demonstrated that the discharge will not have an unacceptable adverse impact “*either individually or in combination* with known and/or probable impacts of other activities affecting the ecosystems of concern.” The Guidelines declare:

From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in *wetlands*, is considered to be among the most *severe* environmental impacts covered by these Guidelines. The *guiding principle* should be that degradation or destruction of special sites [such as wetlands] may represent an irreversible loss of valuable aquatic resources.

40 CFR 230.1 (italics added). The Guidelines address direct, cumulative and secondary effects. 40 CFR 230.11. Secondary effects are those associated with a discharge, but do not result from actual placement of the material, and must be considered prior to agency action under §404. 40 CFR 230.11(h)(1). In this case, a 404(c) process should address potential secondary effects on commercial, subsistence, and recreational fishing and hunting, and public use of parks and preserves. See 40 CFR Part 230, subpart F. All are at issue as discussed herein and in attached letter from counsel, and in the briefing paper attached to enclosed letter to State Rep. Edgmon.

<sup>2</sup> These include: (1) protecting America’s waters; (2) expanding the public conversation on environmentalism and working for environmental justice; and (3) forging strong partnerships between EPA, tribes and states. See EPA’s seven national priorities at <http://blog.epa.gov/administrator/2010/01/12/seven-priorities-for-epas-future/#more-636>.

<sup>3</sup> These include: (1) working with Tribal Governments to protect and restore the natural resources on which tribal communities rely for their physical, cultural and economic well-being; (2) protecting and restoring watersheds; and (3) promoting sustainable practices and strategic partnerships, including with tribal governments. See EPA’s six regional priorities at <http://yosemite.epa.gov/R10/EXTAFF.NSF/Reports/2007-2011+Region+10+Strategy> (last visited Feb. 12, 2010), and EPA’s Region 10 Strategy for Enhancing Tribal Environments at <http://yosemite.epa.gov/r10/EXTAFF.NSF/Reports/07-11+Tribal> (last visited Feb 12, 2010).

<sup>4</sup> *Id.* Pebble mine also raises issues that may require the assistance of EPA staff in other offices.

<sup>5</sup> EPA’s national priorities for enforcement and compliance for FY 2008 – 2010 and FY 2011 – 2013 (proposed) are at <http://www.epa.gov/oecaerth/data/planning/priorities/index.html#new>.

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increased attention to Environmental Justice. Furthermore, EPA's on-going 404(c) process with respect to the Spruce No. 1 mine in West Virginia indicates that EPA prefers to be proactive, *i.e.*, "to address environmental concerns effectively *prior* to permit issuance."<sup>6</sup>

We make this request for the following reasons.

**1. The cultural, ecological and economic importance of the Kvichak and Nushagak river drainages, and the magnitude of a potential Pebble mine, indicate that the scope of a 404(c) public process should be broad at the outset.**

Pursuant to 40 CFR 231.3(a), a Regional Administrator's *initial* decision of whether to commence a 404(c) process turns on whether there is "*reason to believe*" that "an 'unacceptable adverse effect' *could* result." (Italics added). This initial decision is based upon "evaluating the information available."<sup>7</sup>

The Kvichak River drainage historically produces more sockeye salmon than any other drainage in the world. Sockeye salmon drive the commercial salmon fisheries of Bristol Bay, which are the state's most valuable salmon fisheries. Within the Bristol Bay drainages, the Nushagak River drainage, also produces vast numbers of sockeye, and produces the largest runs of other species, including chinook, coho, chum and pink salmon. Both drainages are critical to the wild commercial salmon fisheries, subsistence fisheries, internationally famous sport fisheries, and abundant wildlife. The fish serve many onshore, near-shore and offshore uses and ecological functions, including in the North Pacific. The drainages provide water supplies to numerous villages and communities, many of which are substantially populated by Alaska Native people.<sup>8</sup>

The Pebble Limited Partnership (PLP), which seeks to develop the Pebble mining claims, divides them into "Pebble West" and "Pebble East." The former may be susceptible to an open pit mine. The latter (a more recent discovery) may be susceptible to an underground mine.<sup>9</sup> In

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<sup>6</sup> See EPA, Spruce No. 1 Mine 404(c) Questions & Answers for Web Posting, Oct. 16, 2009 (italics added), [http://www.epa.gov/owow/wetlands/pdf/spruce\\_1\\_Oct\\_16\\_2009\\_q\\_and\\_a.pdf](http://www.epa.gov/owow/wetlands/pdf/spruce_1_Oct_16_2009_q_and_a.pdf) (visited Jan. 26, 2010). EPA took this position when it invoked the 404(c) public process after years of working with the applicant and other agencies. Spruce No. 1 is the largest proposed mountaintop removal operation in Appalachia, would clear 2200 acres, and fill seven miles of streams. By contrast, just the open pit portion of a Pebble mine (per applications filed in 2006 and subsequently suspended) would be about two square miles (over 46,000 acres).

<sup>7</sup> Because EPA staff has access to EPA's materials, our counsel have prepared an Appendix which lists other potentially relevant documents, from other agencies, the mining claimants, academic or professional publications, professional papers, and presidential documents applicable to environmental issues, tribal relations, and environmental justice. We assume that none would be overlooked and simply call these documents to your attention.

<sup>8</sup> Nondalton is closer to a potential Pebble mine than any other community. Dillingham's Curyung Tribal Council represents the largest tribe in the Bristol Bay drainages of about 2400 members. Koliganek, New Stuyahok, Ekwok and Levelock are downstream of Pebble.

<sup>9</sup> EPA routinely recognizes that mine voids, from open pit and underground mines, are sources of acid mine drainage. We call to your attention P. Younger, "*Don't forget the voids: aquatic*

2006, Northern Dynasty Mines, Inc. (NDM) ~~PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE~~ filed, and then supplemented, nine applications with the Alaska Department of Natural Resources (ADNR), and then requested ADNR to suspend them. ADNR did so. Four applications sought to appropriate water. Five sought to construct tailings impoundment dams.<sup>11</sup> These nine applications were based *solely* on Pebble West. The surface area of the water of just two tailings impoundments, as then proposed, would have covered over ten square miles (6400 acres). "Beaches" of waste would have surrounded the impoundments created by five dams or embankments up to 740 feet high and several miles long.

The 2006 applications for Pebble West showed that NDM had considered about a dozen potential waste disposal sites. All or many appeared to involve vast wetlands under EPA's jurisdiction. The proposed open pit would have involved about 16.5 miles of 54-inch diameter pipelines to manage discharge tailings, and over two hundred miles of 15-inch diameter pipelines to transport a slurry concentrate for dewatering and ocean shipment from Cook Inlet, and to return used slurry water to the mine facilities. After suspending the applications, PLP has concentrated on exploring Pebble East. It has resulted in more than doubling the amount of potential mine waste, to about ten billion tons of waste. Hence, the questions of where, how and whether the vast volume of waste can be safely and permanently handled are major unresolved issues that involve a vast amount of discharge under Section 404 into a vast amount of wetlands.

Because a Pebble mine, associated facilities, and similar metallic sulfide mines could also have various direct, cumulative, secondary adverse effects in combination with other impacts over a vast area, our tribes recommend that EPA consider a wide geographic area of the Kvichak and Nushagak drainages for purposes of § 404(c), at least initially for a public process. Our reasons include: (1) the importance of the Kvichak and Nushagak drainages for fish, wildlife, and commercial, subsistence and recreational use of fish and wildlife; and the abundance of waters and wetlands that support fish, wildlife and public uses; (2) the location of the Pebble deposit at a divide between Upper Talarik Creek, which flows directly to Iliamna Lake (a significant rearing lake for sockeye salmon) in the Kvichak drainage, and the North and South Forks of the Koktuli River in the Nushagak drainage; (3) the large scale of the deposit and a Pebble mine;<sup>12</sup> (4) the acid generating potential of the host rock, voids, wastes, and dust; (5) the necessity of dewatering a vast area, likely to great depths; (6) the fact that no comparable mine apparently exists in terms of risk to commercial salmon fisheries, subsistence, recreation, and

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*pollution from abandoned mines in Europe*," submitted at the Workshop on Mine and Quarry Waste – the Burden from the Past, held by the Dir. Gen. for the Envir. and Jt. Research Cen. for EU and EC nations, at Orta, Italy, 2002. The paper indicates that voids can vastly exceed waste depositories as sources of water pollution (see Table 1 therein, and discussion); see [http://viso.jrc.ec.europa.eu/pecominer\\_ext/events/workshop/ProceedingsOrtaWorkshop.pdf](http://viso.jrc.ec.europa.eu/pecominer_ext/events/workshop/ProceedingsOrtaWorkshop.pdf).

<sup>10</sup> We understand that NDM is the American subsidiary of Northern Dynasty Minerals Ltd., of which an affiliate is apparently a partner in PLP. See announcement of PLP partnership at [http://www.northerndynastyminerals.com/ndm/NewsReleases.asp?ReportID=336841&\\_Type=News-Releases&\\_Title=Northern-Dynasty-Anglo-American-Establish-5050-Partnership-To-Advance-Pebbl...](http://www.northerndynastyminerals.com/ndm/NewsReleases.asp?ReportID=336841&_Type=News-Releases&_Title=Northern-Dynasty-Anglo-American-Establish-5050-Partnership-To-Advance-Pebbl...)

<sup>11</sup> The applications comprise over 2000 pages. The attached appendix lists the website posting them. A law journal article (listed in the appendix) summarizes these applications.

<sup>12</sup> The financial commitment necessary to develop Pebble mine is huge, for various reasons such as the cost of power, and is inconceivable as a small mine.

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abundance of wetlands and water proximate to ground level; (7) the apparent existence of other metallic sulfide deposits in the Pebble area and perhaps at Kemuk Mountain; (8) the likelihood that discharge of dredge and fill material, including mine wastes from a Pebble mine or similar mines, and dewatering, will adversely affect vast amounts of wetlands and waters; (9) the facts that the behavior of metallic sulfide mines is difficult to predict; that the record of preventing water pollution from them is not good; that acid mine drainage is a major risk; and that this risk is perhaps increased by abundance of surface and groundwater;<sup>13</sup> (10) the facts that Pebble implies a huge quantity of potential mine waste (perhaps ten billion tons), uncertainty over how wastes might be handled, and that pipelines could move wastes to various discharge sites; (11) the immensity of the task of containing contaminants forever, including acid drainage; (12) the magnitude of potential direct, cumulative, and secondary effects on commercial fishing,<sup>14</sup> subsistence and recreation, including in combination with increased population, access and competition for fish and game;<sup>15</sup> (13) the ecological functions that salmon perform throughout their life cycle in marine and fresh waters; (14) the fact that juvenile salmon have been shown to be present in many waters within the Pebble claims where salmon had been undocumented previously for purposes of the state's Anadromous Fish Act; (15) the likelihood that a transportation route to Cook Inlet could implicate significant beach spawning of sockeye salmon in the north-eastern portion of Iliamna Lake; (16) the likelihood that a Pebble mine, its transportation corridor, and nearby settlement areas could adversely affect areas previously identified as by the State as (a) "essential" moose wintering areas, or "important" spring-, summer- and fall moose habitats, (b) "essential" caribou calving grounds, and (c) "essential" brown bear concentration streams; and (17) the vast amount of compensatory mitigation likely to be required and its questionable sufficiency.<sup>16</sup> All these reasons justify a broad initial scope for a 404(c) process.

**2. The magnitude of the issues and PLP's recent decision to terminate its Technical Working Groups justify an EPA decision to commence a 404(c) process at this time.**

Moreover, the process should be commenced at this time. PLP recently terminated its Technical Working Groups (TWGs), approximately ten in number. They were composed of federal and state officials who, in an advisory capacity, had sought for several years to review and comment upon PLP's baseline study plans before PLP implemented them, and to review results, in order to advise PLP as it progressed toward an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA). During the life of these working groups, information suggests that PLP was not as forthcoming as agency officials had hoped.

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<sup>13</sup> The State of Wisconsin has imposed a moratorium on permits for metallic sulfide mining, by requiring that before permits may issue, a proponent demonstrate one such mine in North America that has operated for ten years without polluting water, and one that has closed for ten years without polluting water. Thus, water pollution at Pebble appears likely.

<sup>14</sup> A listing under the Endangered Species Act of a stock of salmon bound for the Kvichak or Nushagak drainages could affect the commercial fisheries in Bristol Bay.

<sup>15</sup> See accompanying letter from counsel addressing likely effects on subsistence and recreational use from a potential Pebble mine.

<sup>16</sup> For such reasons, much of this issue is characterized as short-term private interests in mining a nonrenewable resource versus long-term public/quasi-public interests in commercial, subsistence and recreational uses of fish, wildlife, waters and other renewable resources on public lands.

PLP's decision to end the TWGs strongly suggests that federal, state and tribal entities may be more likely to face greater informational deficits as they head into an EIS process, than might have been otherwise. Commencing a 404(c) process may help to remedy some of these information deficits before PLP finalizes its design, submits applications, and triggers an EIS.

Because of the magnitude of the issues, all parties (*e.g.*, PLP, federal, state, local and tribal entities, and the public) will benefit from EPA initiating a 404(c) process *before*, and not *after*, PLP submits its anticipated permit applications for a proposed Pebble mine, and *before* an EIS process commences.<sup>17</sup> Moreover, because the potential to invoke a 404(c) process exists, postponing an initial decision to do so until applications are filed serves no affected party.<sup>18</sup>

**3. EPA should commence a 404(c) public process in part because infirmities in the State's 2005 Bristol Bay Area Plan render waiting for the EIS process impractical.**

Our request asks EPA to commence a 404(c) process before an EIS process has begun or run its course. Ordinarily, the analysis of alternatives required by NEPA should provide the information for the evaluation of alternatives under the 404(b)(1) Guidelines. 40 CFR 230.10(a)(4). However, in this instance, infirmities in the State's 2005 Bristol Bay Area Plan (2005 BBAP) render waiting for the NEPA/EIS process impractical.

We are enclosing copies of two other letters, which address the methods that ADNR employed in preparing its 2005 BBAP.<sup>19</sup> It classifies state land, including at Pebble, its access corridor, and nearby settlement lands, into land classification categories and establishes guidelines and statements of intent. The methods used by the 2005 BBAP to do so include:

1. using primarily *marine* criteria, such as whether land is a walrus haulout, to determine whether *inland uplands*, such as those at Pebble, qualify for classification as fish and wildlife habitat (*see* 2005 BBAP, p. 2-9; a link to the 2005 BBAP is in the Appendix);
2. *omission of salmon in non-navigable waters* from the process of designating and classifying land as habitat (*see* 2005 BBAP, pp. 3-323 – 3-330);
3. *omission of moose and caribou* from that process (*see* 2005 BBAP, p. 2-9);
4. lack of a *land use classification category for subsistence hunting and fishing*, while ADNR has a public recreation land category that includes *sport hunting and fishing* (*see* ADNR's land planning regulations at 11 AAC 55.050 – .230 and 2005 BBAP); and then

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<sup>17</sup> PLP recently postponed its applications from 2010 until 2011, and may delay further.

<sup>18</sup> Furthermore, a 404(c) process appears to be less costly than an EIS. Facing issues proactively could reduce all costs of agencies, PLP and the public prior to and during an EIS.

<sup>19</sup> One letter, from our counsel to Col. Koenig, of the U. S. Army Corps of Engineers, Alaska District, and Mr. John Pavitt of EPA's Alaska Operations Office, seeks discussions of whether the tribes may be cooperating agencies on any EIS prepared for a proposed Pebble mine. The other, from our six tribes and the Alaska Independent Fishermen's Marketing Association (AIFMA), urges State Rep. Edgmon, while the Alaska legislature is out of session, to facilitate public discussions in the region of whether the legislature should consider legislation to establish a state fish and game refuge or critical habitat area that would include most state land in the Kvichak and Nushagak drainages, including land at the Pebble site.

5. defining recreation as *excluding* sport hunting and fishing for purposes of preparing the 2005 BBAP (see 2005 BBAP, p. A-11).<sup>20</sup>

Based on these and other methods, the 2005 BBAP reclassifies land at Pebble as solely as mineral land, extinguishes habitat classifications of the prior 1984 BBAP on nearly all wetlands, including those that are hydrologically important to fish habitat (a concern in the 1984 BBAP), and almost totally omits references to wetlands in planning units for state land in the Nushagak and Kvichak drainages. As explained in the letter to the Corps of Engineers, Alaska District, and the EPA Alaska Operations Office, as long as the 2005 BBAP is in effect, every alternative in an EIS that would permit a Pebble mine will rest upon such mineral classifications and the methods ADNR used in adopting land use classifications, guidelines and statements of intent.

NEPA regulations provide that an EIS must analyze and address any applicable state land use plan.<sup>21</sup> This requirement, in effect, is likely to put federal agencies in a difficult position of explaining, in public and on the record, why they would evaluate federal permit applications to develop state land, including wetlands, where the State's land classifications, guidelines and statements of intent rest upon (1) using primarily marine criteria to determine whether Pebble is habitat, (2) excluding salmon in non-navigable waters such as Upper Talarik Creek, (3) excluding moose and caribou, (4) having no land use classification category for subsistence hunting and fishing where there is one for sport hunting and fishing, and (5) then defining recreation as excluding sport hunting and fishing. Regardless of whether such methods are lawful or not (and we believe the present ones are *not*), to ignore them would be facially contrary to 40 CFR § 1506.2(d), and would beg the question of what the classifications, guidelines and statements of intent should be applicable, in the absence of the 2005 BBAP and its methods. No one can answer that question.

Because no one can do so, we doubt that federal agencies can engage in legally required, *reasoned* decision-making necessary to approve federal permits so long as the 2005 BBAP is in place.<sup>22</sup> This leaves little room for any decision other than to commence a 404(c) *before*, and not *after*, PLP submits its permit applications, and *before* an EIS process commences. To do otherwise will compel EPA, the Corps and other agencies, in the context of NEPA and an EIS

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<sup>20</sup> In *Nondalton Tribal Council, et al., v. ADNR.*, 3AN-09-46 CI (3<sup>rd</sup> Jud. Dist., Ak.), these six tribes, AIFMA and Trout Unlimited, Inc. allege that ADNR's 2005 BBAP uses many unlawful methods to classify state land, and establish guidelines and management intent, including where Pebble and its facilities might be located. The litigation is undecided. *See also*, enclosed letter to Rep. Edgmon, and briefing paper (Pt. I) regarding 2005 BBAP. With respect to ADNR's lack of a subsistence category, ADNR claims that its habitat classifications accommodate subsistence, even though the 2005 BBAP reduces the upland acreage classified or co-classified as habitat by 90 percent, from 12 million acres to 768,000 acres, when compared to the former 1984 BBAP.

<sup>21</sup> 40 CFR § 1506.2(d) provides that to integrate an EIS into state planning processes, an EIS shall discuss any inconsistency of a proposed action with any approved state land use plan; and where inconsistency exists, the EIS should describe the extent to which the federal agency would reconcile its proposed action with the plan. In other words, an EIS on any potential Pebble mine will have to consider and analyze the applicable state land use plan.

<sup>22</sup> The 2005 BBAP appears fatal, from a legal standpoint, as a basis for an EIS that would support issuing permits for Pebble. *See* Briefing Paper, Pt. II, attached to letter to Rep. Edgmon.

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### CONCLUSION

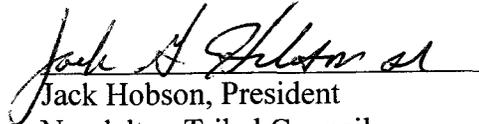
For three reasons, this situation seems straightforward. First, the importance of the Kvichak and Nushagak river drainages and the magnitude of the issues raised by a potential Pebble mine warrant an EPA decision now, to commence a 404(c) public process. Second, all of the concerns raised to date, coupled with the recent decision of the Pebble Limited Partnership to terminate its Technical Working Groups, justify commencing a 404(c) process at this time. Third, the infirmities of ADNR's 2005 Bristol Bay Area Plan provide additional reason to commence a 404(c) process at this time. These infirmities leave little room for any decision other than to do so *before*, and not *after*, PLP submits its permit applications, and *before* an EIS process commences, because during an EIS process no governmental agency could lawfully defend or ignore the 2005 Bristol Bay Area Plan.

Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

Sincerely yours,

Date: \_\_\_\_\_

5/2/2010



Jack Hobson, President  
Nondalton Tribal Council  
P.O. Box 49  
Nondalton, Alaska 99640

Enclosures (2)

INTERNAL DELIBERATIVE AND/OR PRIVILEGED DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
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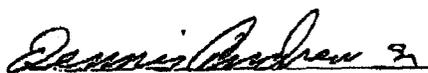
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Sincerely yours.

Date: \_\_\_\_\_

5/04/10



Dennis Andrew, President  
New Stuyahok Traditional Council  
P.O. Box 49  
New Stuyahok, Alaska 99636

Enclosures (2)

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### CONCLUSION

For three reasons, this situation seems straightforward. First, the importance of the Kvichak and Nushagak river drainages and the magnitude of the issues raised by a potential Pebble mine warrant an EPA decision now, to commence a 404(c) public process. Second, all of the concerns raised to date, coupled with the recent decision of the Pebble Limited Partnership to terminate its Technical Working Groups, justify commencing a 404(c) process at this time. Third, the infirmities of ADNR's 2005 Bristol Bay Area Plan provide additional reason to commence a 404(c) process at this time. These infirmities leave little room for any decision other than to do so *before*, and not *after*, PLP submits its permit applications, and *before* an EIS process commences, because during an EIS process no governmental agency could lawfully defend or ignore the 2005 Bristol Bay Area Plan.

Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

Sincerely yours,

Date: 5-10-10

*for Angelina Chukwak* Vice  
Sergie Chukwak, President President  
Levelock Village Council  
P.O. Box 70  
Levelock, Alaska 99625

Enclosures (2)

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Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

Sincerely yours,

Date: 5/11/10

  
Yuki Akelkok, President  
Ekwok Village Council  
P.O. Box 70  
Ekwok, Alaska 99580

Enclosures (2)

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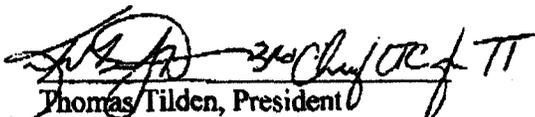
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Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

Sincerely yours,

Date: 5/12/2010

  
Thomas Tilden, President  
Curyung Tribal Council  
P.O. Box 216  
531 D Street  
Dillingham, Alaska 99576

Enclosures (2)

INTERNAL DELIBERATIVE AND/OR PRIVILEGED DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
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Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

Sincerely yours,

Date: 5-13-2010

Herman F. Nelson Sr.  
Herman Nelson, Sr., President  
Koliganek Village Council  
P.O. Box 5057  
Koliganek, Alaska 99576

Enclosures (2)

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
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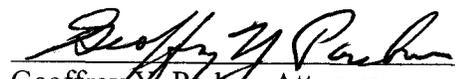
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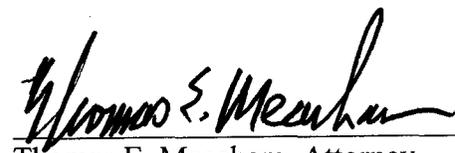
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Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

Sincerely yours,

Dated: 5-20-10

  
Geoffrey V. Parker, Attorney  
634 K Street  
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(907) 222-6859  
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Co-Counsel to Signatory Tribes

Enclosures (2)

An Abstracted List of Potentially Relevant Information

(This list assumes that EPA has access to its own agency documents, and therefore this list does not include such documents.)

Alaska Department of Fish and Game, *The Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* and its associated *Atlas*, available at <http://www.sf.adfg.state.ak.us/SARR/AWC/index.cfm/FA/main.overview> (last visited December 30, 2009).

*The Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* ("Anadromous Waters Catalogue") and its associated *Atlas* of maps currently contain about 16,000 streams, rivers or lakes in Alaska which have been specified as being important for the spawning, rearing or migration of anadromous fish. Based upon thorough surveys of a few drainages, it is believed that this number represents less than 50% of the streams, rivers and lakes actually used by anadromous species. It is estimated that at least an additional 20,000 or more anadromous water bodies have not been identified or specified under AS 16.05.871(a), a state permitting statute.

In recent years, work for the Nature Conservancy has added about a hundred miles of previously undocumented anadromous waters in the vicinity of Pebble.

Alaska Department of Natural Resources, Alaska Department of Fish and Game, Alaska Department Environmental Conservation, *Bristol Bay Area Plan for State Lands* (1984), available at <http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm> (last visited December 30, 2009).

Area plans generally have an administrative life of about twenty years, are prepared by the Alaska Department of Natural Resources, and apply to state-owned and state-selected lands. By state statute, area plans must (1) be based on an inventory of uses and resources; (2) designate primary uses of units of state land; these designations convert to classifications of the land; and (3) adopt general and unit specific guidelines and statements of intent to guide management decisions. The Bristol Bay Area Plan of 1984, prepared and adopted by ADNR, ADF&G, and ADEC, contains a set of five habitat maps, and three maps of subsistence use areas for 31 communities and villages in the Bristol Bay drainages. The 1984 Plan remains useful because the later-prepared 2005 Bristol Bay Area Plan lacks comparable maps and comparable cartographic identification of essential and important habitats. The maps from the 1984 Plan are not posted on ADNR's web pages, but may be obtained separately either from ADNR or from counsel to the tribes. BLM's Resource Management Plan has identical or similar maps of subsistence use areas.

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
Alaska Department of Natural Resources, *Bristol Bay Area Plan for State Lands* (2005),  
available at <http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm> (last visited  
December 30, 2009).

See above abstract of the 1984 Bristol Bay Area Plan. The Bristol Bay Area Plan of 2005, prepared and adopted by ADNR, is currently the subject of litigation in *Nondalton Tribal Council, et al., v. State, Department of Natural Resources*, 3DI-09-046 CI, wherein these six Tribes, AIFMA Cooperative (a cooperative association of commercial fishers), and Trout Unlimited seek to have the 2005 Plan declared unlawful.

Directorate General for the Environment and the Joint Research Centre, Workshop on Mine and Quarry Waste – the Burden from the Past  
([http://viso.jrc.ec.europa.eu/pecomines\\_ext/events/workshop/ProceedingsOrtaWorkshop.pdf](http://viso.jrc.ec.europa.eu/pecomines_ext/events/workshop/ProceedingsOrtaWorkshop.pdf), last visited Jan. 25, 2010)

This is a collection of papers submitted at the conference organized by the for European Union and European Community nations, held at Orta, Italy, in 2002. Many seem useful. In particular, the paper by P. Younger, “*Don't forget the voids: aquatic pollution from abandoned mines in Europe,*” indicates that mine voids can vastly exceed mine waste depositories as sources of water pollution (see Table 1 therein, and discussion).

Duffield et al., *Economics of Wild Salmon Watersheds: Bristol Bay, Alaska* 15 at [http://www.housemajority.org/coms/hfsh/trout\\_unlimited\\_report.pdf](http://www.housemajority.org/coms/hfsh/trout_unlimited_report.pdf) (Feb. 2007) (last visited Jan. 6, 2010).

This report provides estimates of the economic values associated with the sustainable use of wild salmon ecosystem resources, primarily fisheries and wildlife, of the major watersheds of the Bristol Bay, Alaska region. Both regional economic significance and social benefit-cost accounting frameworks are utilized. This study reviews and summarizes existing economic research on the key economic sectors (e.g., commercial fishery, subsistence fishery, recreation, and governmental expenditure and values) in this area. The study also reports recent findings based on original survey data on expenditures, net benefits, attitudes, and motivations of recreational anglers.

William J. Hauser, d/b/a “Fish Talk, Consulting,” *Potential Impacts of the Proposed Pebble Mine on Fish Habitat and Fishery Resources of Bristol Bay* (2007).

This paper appears to have useful information about salmon production proximate to the proposed road/access route to Pebble, including the hydrological characteristics of areas used by sockeye salmon for beach spawning in northwestern Iliamna Lake, which is immediately down-gradient from the proposed road/access route.

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
Northern Dynasty Mines, Inc. (NDM), Pebble Project: Applications for surface and ground water rights, and initial applications for certificates of approval to construct dams (2006), available at <http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/waterapp.htm> (last visited December 30, 2009).

Shortly after NDM filed these applications, NDM requested DNR to suspend processing them, and DNR agreed to do so. They contain information on the Pebble West portion of the ore body, proposed routes for road access, pipelines and power, and information relevant to the types of facilities envisioned and the magnitude of the project.

Office of the President, Executive Order 12898 (Feb. 11, 1994) re: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, available at [http://www.epa.gov/compliance/resources/policies/ej/exec\\_order\\_12898.pdf](http://www.epa.gov/compliance/resources/policies/ej/exec_order_12898.pdf) (last visited December 30, 2009).

Section 4-4 on subsistence consumption of fish and wildlife may bear upon EPA decision-making under Section 404(c).

Office of the President, Executive Order 13175 (Nov. 6, 2000) re: Consultation and Coordination with Indian Tribal Governments, available at <http://www.epa.gov/fedreg/eo/eo13175.htm> (last visited December 30, 2009). This executive order applies to federal-tribal relationships.

Office of the President, Memorandum for the Heads of Executive Departments and Agencies, re: Tribal Consultation (Nov. 5, 2009), available at <http://www.gpoaccess.gov/presdocs/2009/DCPD-200900887.pdf> (last visited December 30, 2009). This presidential memorandum supplements Executive Order 13175.

Parker, et al., "*Pebble Mine: Testing the Limits of Alaska's Large Mine Permitting Process*," Alaska Law Review, Vol. 25:1 (June 2008), available at [www.law.duke.edu/shell/cite.pl?25+Alaska+L.+Rev.+1+pdf](http://www.law.duke.edu/shell/cite.pl?25+Alaska+L.+Rev.+1+pdf) (last visited December 30, 2009).

This law journal article, by lawyers and biologists, examines the adequacy of the state's large mine permitting process and finds it insufficient to deal with large metallic sulfide mines such as a Pebble mine.<sup>23</sup> The article contains over 170 footnotes, many with links to sources. Many of the non-legal sources may be useful to the Regional Administrator of EPA in making the initial determination of whether there is "reason to believe" that metallic sulfide mining in the area of Pebble "could result" in "unacceptable adverse effect," and therefore whether to commence a 404(c) process. The citations cover: (1) academic and professional literature on impacts that dissolved copper may have on salmonids and other fish, including a discussion of additive and synergistic effects; (2) academic and professional literature on the role that genetic diversity plays in overall productivity of salmon stocks; (3) EPA documents on acid mine drainage; (4)

<sup>23</sup> The authors have represented or assisted clients or entities opposed to or concerned about a Pebble mine, and continue to do so.

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
documents from Pebble Limited Partnership or Northern Dynasty on the nature of the ore body, (5) documents from Northern Dynasty submitted as part of its 2006 applications for water rights and approval of dams, (6) a recent study by Dr. John Duffield (University of Montana) of the economic values and job production associated with wild salmon producing watersheds of the Bristol Bay drainages, and (7) other related materials. Some of the links to PLP and NDM materials are no longer active or have been replaced by more up-to-date sources on PLP's webpages (see below).

Pebble Limited Partnership, various websites at <http://www.pebblepartnership.com/>.

State of Alaska, Alaska Statutes, Title 38, Chap. 38.04 (land use planning and classification) at <http://www.legis.state.ak.us/basis/folio.asp>, and ADNR regulations (land use planning and classification), 11 AAC 55.010 -- .280 at [http://www.legis.state.ak.us/basis/folioproxy.asp?url=http://www.jnu01.legis.state.ak.us/cgi-bin/folioisa.dll/aac/query=\[JUMP:'Title11Chap55'\]/doc/{@1}?firsthit](http://www.legis.state.ak.us/basis/folioproxy.asp?url=http://www.jnu01.legis.state.ak.us/cgi-bin/folioisa.dll/aac/query=[JUMP:'Title11Chap55']/doc/{@1}?firsthit)

Trasky & Associates, Analysis of the Potential Impacts of Copper Sulfide Mining on the Salmon Resources of the Nushagak and Kvichak Watersheds (2007).

This two-volume report may, or may not, be public at the present time. It was prepared for the Nature Conservancy in Alaska. Mr. Trasky is a retired Regional Supervisor of the Alaska Department of Fish and Game, Habitat Division, Region III, which includes the Bristol Bay drainages.

US Department of the Interior, Bureau of Land Management, Subsistence Use Area Maps, Proposed Resource Management Plan (RMP) for BLM lands in the Bristol Bay drainages, and Final Environmental Impact Statement on the proposed RMP (December 2007), available at [http://www.blm.gov/ak/st/en/prog/planning/bay\\_rmp\\_eis\\_home\\_page/bay\\_feis\\_documents.html](http://www.blm.gov/ak/st/en/prog/planning/bay_rmp_eis_home_page/bay_feis_documents.html) (last visited Jan. 7, 2010).

The final EIS on BLM's proposed Resource Management Plan contains maps of subsistence use areas of many of the villages and communities in the Bristol Bay drainages. The internet links to the maps of subsistence use areas that appear to include significant amounts of the Kvichak and Nushagak drainages are:

Aleknagik:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.39744.File.dat/Map3-51\\_Aleknagik.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.39744.File.dat/Map3-51_Aleknagik.pdf) (last visited Jan. 7, 2010)

Dillingham:

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Ekwok:

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Iliamna:

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Levelock:

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Manokotak:

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Nondalton:

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Pedro Bay:

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Platinum:

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Portage Creek:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.78039.File.dat/Map3-65\\_PortageCreek.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.78039.File.dat/Map3-65_PortageCreek.pdf) (last visited Jan. 7, 2010)

Port Alsworth:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.10100.File.dat/Map3-66\\_PortAlsworth.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.10100.File.dat/Map3-66_PortAlsworth.pdf) (last visited Jan. 7, 2010)

New Stuyahok:

~~PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE~~  
[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.90357  
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Togiak:

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.File.dat/Map3-69\\_Togiak.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.42891.File.dat/Map3-69_Togiak.pdf) (last visited Jan. 7, 2010)

Twin Hills:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.66104  
.File.dat/Map3-70\\_TwinHills.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.66104.File.dat/Map3-70_TwinHills.pdf) (last visited Jan. 7, 2010)

END

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634 K Street  
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May 7, 2010

Dennis J. McLerran, Regional Administrator  
U.S. Environmental Protection Agency, Region 10  
Regional Administrator's Office, RA-140  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

Re: Secondary effects on subsistence and recreational use from a potential Pebble mine.

Dear Mr. McLerran:

I and my co-counsel represent several federally-recognized Tribes that, in accompanying correspondence, have requested EPA to initiate a public process, under Section 404(c) of the Clean Water Act, to identify and designate waters and wetlands in the Kvichak and Nushagak river drainages of Southwest Alaska where discharge of dredge and fill material associated with metallic sulfide mining, such as a potential Pebble mine, could be prohibited or restricted.

Much of the discussion of a potential Pebble mine focuses, understandably, on risks to commercial salmon fisheries. This letter focuses on risks to subsistence and recreation (chiefly sport fishing), in order to draw a distinction.

A distinction is this. With respect to commercial fishing, significant damage or loss may depend, for the most part, on events such as acid mine drainage, seepage from or failure of tailings facilities, other pollution, genetic loss, etc.; and at least some of these events are likely to occur if for no other reason than that containment must be forever. Such events would be secondary effects to discharges of dredge and fill into waters and wetlands. With respect to subsistence and sport fishing, significant damage or loss may occur not only by such means, but also by *other* secondary effects such as increased competition due to increased use, population, access, crowding, etc. Sport hunting is likely to suffer similarly. Thus, while discharges under Section 404 for a Pebble mine (or similar metallic sulfide mine) inevitably will have direct and cumulative effects where the discharges occur, this letter focuses on impacts that are *likely* to result, *secondarily and in combination* with other impacts (of increased use, access, etc.), in significant loss or damage to subsistence and recreational use of fish and wildlife.

**I. Summary of the 404(c) Regulations and the 404(b)(1) Guidelines.**

The 404(c) regulations define an “unacceptable adverse effect” as

impact on an aquatic or wetland ecosystem which is *likely* to result in . . .  
significant loss of or damage to fisheries . . . , or wildlife habitat or recreation

areas. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines (40 CFR part 230).<sup>1</sup>

The purposes of the Guidelines are “to restore and *maintain* the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material,”<sup>2</sup> and to implement Congressional policies expressed in the Clean Water Act.<sup>3</sup> Accordingly, the Guidelines establish a rebuttable presumption against allowing any discharge:

Fundamental to these Guidelines is the *precept* that dredged or fill material should *not be discharged* into the aquatic ecosystem, *unless* it can be demonstrated that such a discharge will not have an unacceptable adverse impact *either individually or in combination* with known and/or probable impacts of other activities affecting the ecosystems of concern.<sup>4</sup>

Thus, the Guidelines prohibit a discharge whenever it results, “either individually or in combination” with other known or probable impacts, in an unacceptable adverse impact. The Guidelines further declare:

From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in *wetlands*, is considered to be among the most *severe* environmental impacts covered by these Guidelines. The *guiding principle* should be that degradation or destruction of special sites [such as wetlands] may represent an irreversible loss of valuable aquatic resources.<sup>5</sup>

The 404(b)(1) Guidelines address direct, cumulative and secondary effects.<sup>6</sup> Cumulative effects are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material.<sup>7</sup> Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.<sup>8</sup> Information about secondary effects must be considered prior to a final decision under Section 404.<sup>9</sup> Secondary effects may present issues of greater

<sup>1</sup> 40 CFR 231.2(e) (*italics added*). The 404(b)(1) Guidelines (40 CFR Part 230) are promulgated by the EPA in conjunction with the Secretary of the Army acting through the Chief of Engineers under Section 404(b)(1) of the Clean Water Act. 40 CFR 230.2.

<sup>2</sup> 40 CFR 230.1(a) (*italics added*).

<sup>3</sup> 40 CFR 230.1(b).

<sup>4</sup> 40 CFR 230.1(c) (*italics added*).

<sup>5</sup> 40 CFR 230.1(d) (*italics added*). Wetlands are a “special aquatic site.” 40 CFR Part 230, subpart E.

<sup>6</sup> 40 CFR 230.11.

<sup>7</sup> 40 CFR 230.11(g)(1).

<sup>8</sup> 40 CFR 230.11(h)(1).

<sup>9</sup> *Id.*

significance than direct effects.<sup>10</sup> The Guidelines address effects on human uses of resources.<sup>11</sup> In practice, this includes secondary effects on such uses.<sup>12</sup>

## II. Overview of the Economic Uses of Fish and Wildlife in the Bristol Bay Area.

The most recent study of economic values associated with salmon of the Bristol Bay drainages is: John Duffield<sup>13</sup> et al., *Economics of Wild Salmon Watersheds: Bristol Bay, Alaska* (2007) (see Appendix, Tribes' letter requesting a 404(c) process).<sup>14</sup> According to Duffield, the economy of the Bristol Bay region depends on three main types of activities – publicly funded services (government plus non-profits), activities associated with the commercial exploitation of the natural resources of the region (commercial fishing and recreation), and subsistence.<sup>15</sup>

With respect to commercial salmon fishing, Duffield estimates that commercial salmon caught in Bristol Bay in 2005 had a wholesale value of \$226 million in the regional economy.<sup>16</sup>

With respect to subsistence, Duffield estimates that subsistence harvest of fish and game, by approximately 7600 people residing in the Bristol Bay drainages, accounts for 2.4 million pounds of subsistence harvest per year for an average of 315 pounds per person annually,<sup>17</sup> and that this results in an estimated net economic value annually of between \$78 and \$143 million.<sup>18</sup>

With respect recreation, Duffield estimates that in 2005 the fish and wildlife in these drainages accounted for nearly 51,000 recreational trips,<sup>19</sup> which generated \$91 million in expenditures within Alaska.<sup>20</sup> With respect to sport fishing trips, Alaska residents account for

<sup>10</sup> 40 CFR 230.41(b) (“minor loss of wetland acreage may result in major losses through secondary impacts”).

<sup>11</sup> 40 CFR Part 230, Subpart F.

<sup>12</sup> An example of a previous EPA action under 404(c) that addresses secondary effects on human use of resources is the Recommended Determination of [EPA Region IV] Pursuant to Section 404(c) of the Clean Water Act Concerning the Yazoo Backwater Area Pumps Project (June 23, 2008).

<sup>13</sup> Dr. Duffield, PhD, is a professor of natural resource economics at the University of Montana and is a co-author of the treatise: Ward, Kevin M. and John W. Duffield, 1992, *Natural Resource Damages: Law and Economics*, New York, John Wiley & Sons.

<sup>14</sup> Page citations herein are to the full study listed in the Appendix to the Tribes' letter to EPA re 404(c). A shorter version of the study was published in USDA Forest Service Proceedings RMRS-P-49 (2007).

<sup>15</sup> Duffield et al., at 93.

<sup>16</sup> Duffield et al., at 16. The “economic value” of commercial salmon fishing in Bristol Bay can be estimated by various values, such as ex-vessel value, expenditure value, wholesale value, net profit, etc., in various geographical contexts, such as a local, regional, or national economy. See Duffield generally.

<sup>17</sup> Duffield et al., at 84 – 85.

<sup>18</sup> Duffield et al., at 107 – 108.

<sup>19</sup> Duffield et al., at 16, 99.

<sup>20</sup> Id.

approximately 65 percent of the trips to the area, and nonresidents 35 percent.<sup>21</sup> Total angler effort is on the order of 100,000 angler days per year.<sup>22</sup> When sport fishing was the sole or primary purpose of these trips, the sport fishing accounted for \$61 million in expenditures within Alaska,<sup>23</sup> of which \$48 million were expenditures by the one-third of sport fishers who are non-residents of Alaska.<sup>24</sup> With respect to sport hunting and wildlife viewing/tourism, they accounted for \$13 million and \$17 million respectively, in expenditures within Alaska.<sup>25</sup>

With respect to employment, the following table from Duffield, et al. reflects the distribution of full-time-equivalent jobs.

**Total Full Time Equivalent (FTE) Employment in Alaska  
 Dependent on Bristol Bay Wild Salmon Ecosystems, 2005<sup>26</sup>**

Sector	Alaska Residents			Nonresidents	Total FTE jobs
	Local residents	Non-local residents	Total Alaska		
Commercial fishing	689	667	1,357	1,172	2,529
Commercial processing	465	449	914	796	1,710
Sport fishing	288	435	723	123	846
Sport hunting	60	105	165	2	167
Wildlife viewing / tourism	82	139	222	17	239
Subsistence	14	34	49	0	49
Total FTE jobs	1598	1829	3,430	2,110	5,540

### III. Secondary Effects on Subsistence and Recreational Use of Fish and Wildlife.

A Pebble mine, and associated development and access, are likely to increase competition for subsistence and recreational use of fish and game in the Bristol Bay drainages. At various times, the Pebble Limited Partnership (PLP) has asserted that a Pebble mine will require several thousand workers to build it, and a thousand workers to operate it, though PLP's estimates of the number of workers fluctuate. This increased activity inevitably will bring additional residents to the area in other roles, also. Even if stipulations on mining-related permits, such as wetland permits under Section 404, could protect fish and wildlife habitat outside of the sites at which dredge and fill material would be discharged, significant increases in demand for fish and game resources, in access demands, and in secondary development are likely to increase competition for fish and game.

<sup>21</sup> Duffield et al., at 15.

<sup>22</sup> Duffield, et al., at 17.

<sup>23</sup> Duffield et al., at 15-16, 101.

<sup>24</sup> Id.

<sup>25</sup> Duffield et al., at 16.

<sup>26</sup> Duffield et al., at 17. Hunting is included because wild salmon returning from the sea perform an "ecosystem service" of nutrient recycling to support habitat functions. See id. at 24-26. In Alaska, marine nitrogen accounts for as much as 90 percent of the nitrogen in brown bears. See Robert J. Naiman et al., Riparia: Ecology, Conservation, and Management of Streamside Communities, 184-185 (2005).



A potential Pebble mine is likely to be caught upon the horns of this dilemma, because the Bristol Bay drainages (unlike locations of other large mines in Alaska) are the source of world-class fish and game resources (e.g., salmon, trout, char, grayling, pike, lake trout, caribou, moose, and bears) that attract users locally, regionally, nationally, and internationally. No other large Alaskan mine is located in a region that does so. This distinction implies that Pebble and associated development are likely to result in increasing the numbers of new local rural residents, visitors from Alaska and perhaps elsewhere, and the amount of secondary development.<sup>31</sup> Because of the land ownership pattern, new local residents are likely to settle in the vicinity of Iliamna, Newhalen and Nondalton. However, their uses of lands and resources will reach beyond, to state lands in the Kvichak and Nushagak drainages (and to private land, including Native land, with and without permission) where state subsistence law applies, and to federal land (Lake Clark and Katmai national parks and preserves, and BLM lands) where federal subsistence law applies. The Pebble Partnership may restrict fishing or hunting by employees while at the mine site, but it cannot limit development of private land, or the activities of new local residents who are either not its employees, or are visitors. Even well-intentioned restrictions on access to protect subsistence uses of resources tend to be transitory and ineffective (e.g., the Dalton Highway, formerly "the North Slope Haul Road" is now open to public use).

With respect to federal law, the *new* local residents will be *rural* residents for purposes of subsistence in federal parks and preserves and BLM lands. They will compete with both *current rural residents* engaged in subsistence and *sport hunters* who visit the area. As *total* subsistence demand increases due to new *rural* residents, Federal subsistence law, first, will restrict or eliminate sport hunting in the federal Lake Clark and Katmai Preserves (where sport hunting has been allowed). Second, when subsistence demand of all (new and current) rural residents surpasses sustained yield of a fish or game population (most likely a game population) on federal land, some rural residents will be disqualified under the criteria at 16 U.S.C. § 3114. However, the local-residency criterion will not be particularly effective, because new and current rural residents will *all* be local rural residents for purposes of federal subsistence law. The first and third criteria – *i.e.*, (1) customary and direct dependence as the mainstay of livelihood; and (3) availability of alternative resources – will disqualify some subsistence users on federal lands, not unlike the disqualification that occurs under the State's divisive and controversial Tier II hunts. Hence, *current* rural residents would experience increased competition, diminished subsistence opportunity, and disqualification on federal lands, because of an influx of *new* rural residents.

With respect to state subsistence law, conflicts are likely to be more intense because all Alaska residents can qualify for subsistence on nonfederal lands. Some game populations, such as Mulchatna caribou and Nushagak moose, may have to be managed as Tier II state subsistence hunts, in which all sport hunters and many subsistence hunters would be excluded.

Thus, the discharge of dredge and fill material for a Pebble or similar mine is likely to result, in combination with other impacts, in a significant loss of subsistence by current subsistence users. Furthermore, because the population in the Bristol Bay drainages is substantially Native Alaskan, a Pebble mine (or similar metallic sulfide mine) is likely to have

<sup>31</sup> For reasons addressed in Part B below, additional visitors may not result in less, not more recreational expenditures.

disproportionately high, adverse, *secondary* effects, in combination with other impacts, on subsistence use by Alaska Natives in the Kvichak and Nushagak drainages. This raises issues of environmental justice under Executive Order 12898. Again, the Yazoo Backwater Area Pumps Project (see fn. 12, *supra*) provides analogy. In that case, EPA concluded that the project would have disproportionate adverse effects on subsistence fishing and hunting activities of low-income and minority populations, and that a 404(c) decision to bar the project would not.<sup>32</sup>

## B. Sport Fishing.

As said above, in the Bristol Bay drainages, approximately two-thirds of the sport-fishing trips are by local residents,<sup>33</sup> and approximately two-thirds of the sport-fishing expenditures are by nonresidents. With respect to sport fishing expenditures, the Duffield study is consistent with others published in the 1980's. Generally speaking, the studies have found or implied that two factors drive expenditures for services of remote fishing lodges in the Bristol Bay drainages: (1) desire for large rainbow trout as a target species, ahead of king salmon, silver salmon and other species, and (2) concern about crowding.<sup>34</sup> Most of the commercial lodges and camps are located in the Kvichak and Nushagak drainages.<sup>35</sup>

Duffield compared sport fishing in the Bristol Bay drainages to sport fishing on the Kenai Peninsula. Anglers fishing the road-accessible Kenai Peninsula generally were less concerned with crowding or desire to fishing remote roadless areas than were anglers in the Bristol Bay drainages,<sup>36</sup> and were more likely to pursue salmon.<sup>37</sup> According to Duffield, these findings are consistent with the general finding from Romberg (1999), that there are different market segments of Alaskan sport fishing, and that different types of waters attract different types of anglers.<sup>38</sup> Generally, in primarily road-accessible fisheries of Southcentral Alaska, Alaska residents account for about two-thirds of sport fishing effort (measured in angler-days).<sup>39</sup> In

<sup>32</sup> USEPA, Recommended Determination pursuant to Section 404(c) Concerning the Yazoo Backwater Area Pumps Project, *supra*, at 65 – 67.

<sup>33</sup> Duffield, et al., at 51 (estimated 19,488 sport fishing trips by Bristol Bay area residents versus 12,966 sport fishing trips by non-residents of Alaska).

<sup>34</sup> Duffield, et al., at 46 – 48 (large rainbow trout viewed as over 26 inches in survey). See also Jon Issacs & Associates, "Commercial Recreation Service Providers Study" (1986) for Bristol Bay Coastal Resource Serv. Area (focuses on Nushagak/Mulchatna drainage); D. A. Ackley, "An Economic Evaluation of Recreational Fishing in Bristol Bay, Alaska," Masters Thesis, UAA/Juneau (1988) (focuses on Kvichak/Naknek drainages; includes Iliamna Lake area).

<sup>35</sup> The authors can provide a copy of the State's "Bristol Bay Area Plan Planning Regions, Recreation Lodges & Camps" (2005) prepared for the State's 2005 Bristol Bay Area Plan but not published in the Plan itself.

<sup>36</sup> Duffield, et al., at 43.

<sup>37</sup> Duffield, et al., at 45.

<sup>38</sup> Duffield, et al., at 43.

<sup>39</sup> ADF&G, Fishery Data Series, No. 09-47, "Estimates of Participation, Catch, and Harvest in Alaska Sport Fisheries in 2005, 37 (This Data Series defines "Southcentral Alaska" as including Kenai Peninsula, Matanuska-Susitna Valley, and Bristol Bay drainages, but the last account for a small percentage of all angling effort as this data series defines "Southcentral Alaska.")

contrast, in the Bristol Bay drainages, where residents account for two-thirds of the sport fishing trips and nonresidents account for two-thirds of the expenditures, the nonresidents who purchase multi-day "trip packages" (of lodge, guiding and air taxi services) in the Bristol Bay drainages, account for over half of the total sport fishing expenditures.<sup>40</sup>

Duffield addresses potential development within the area that could result in road access (by ferry from Homer, Alaska) and thus would impact crowding and size and abundance of rainbow trout in the region.<sup>41</sup> The survey indicates that 45.4% of non-residents and 30.5% of residents feel that the road access would cause them to either stop fishing in the Bristol Bay area (and fish other areas of Alaska) or stop fishing in Alaska entirely.<sup>42</sup> Nearly 80 percent of non-resident lodge clients responded that they oppose developing road access in Bristol Bay area, and nearly 60 percent responded that they would not fish the Bristol Bay area if good road access were developed in the area.<sup>43</sup>

For purposes of 404(c) and the 404(b)(1) Guidelines, the dredge and fill of wetlands to develop a Pebble mine and access to it, in combination with increased crowding, population and access, is likely to result in significant loss of sport fishing within the lodge, guiding and air taxi industries, as non-residents who seek trout at uncrowded, internationally famous destinations are displaced by residents who seek salmon and are more tolerant of crowding. That would simply shift expenditures of residents from road-accessible destinations in the Kenai Peninsula or Matanuska-Susitna Valley to the Kvichak and Nushagak drainages while displacing nonresidents who account for the majority of sport fishing expenditures in the Bristol Bay drainages.

#### IV. Existence Value.

Although the focus here is on subsistence and sport fishing, the values of renewable resource services in principle should be available in perpetuity. Hence, EPA might consider what has been said about existence value of the Bristol Bay watersheds. According to Duffield, et al., a major unknown is the total value for existence and bequest (also called passive use values).<sup>44</sup> Subject to qualifications, Duffield, et al., estimate that the existence value of the watersheds is in the range of \$6.0 billion to \$10.2 billion.<sup>45</sup>

Sincerely yours,



Geoffrey Y. Parker

cc: Lisa P. Jackson, EPA, Administrator, Washington, D.C.  
Phil North, EPA, Kenai, Alaska

<sup>40</sup> Duffield, et al., at 55 – 56; see also *id.* at 50 (re distribution of expenditures).

<sup>41</sup> Duffield, et al., at 58.

<sup>42</sup> Duffield, et. al, at 58.

<sup>43</sup> Duffield, et. al, at 61.

<sup>44</sup> Duffield, et. al, at 110.

<sup>45</sup> Duffield, et. al, at 112.

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May 13, 2010

Lisa P. Jackson, Administrator  
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Dennis J. McLerran, Regional Administrator  
U.S. Environmental Protection Agency, Region 10  
Regional Administrator's Office, RA-140  
1200 Sixth Avenue, Suite 900  
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**Re: Endorsement of Tribes' request that EPA initiate a public process under Section 404(c) of the Clean Water Act, regarding discharges related to potential metallic sulfide mining in the Kvichak and Nushagak drainages of Southwest Alaska.**

Dear Ms. Jackson and Mr. McLerran:

AIFMA Cooperative (Alaska Independent Fishermen's Marketing Association) is a member-based cooperative of commercial fishers, organized under the laws of the State of Alaska. AIFMA's members fish for salmon in Bristol Bay in Southwest Alaska. AIFMA has long opposed development of a potential Pebble Mine. If developed, it would mine a large metallic sulfide deposit located at the divide between Upper Talarik Creek in the Kvichak River drainage and the North and South Forks of the Koktuli River drainage. The Kvichak River drainage historically produces more sockeye salmon than any other river in the world, and the Nushagak River drainage produces the most salmon of the other species caught in the commercial fisheries of Bristol Bay. A Pebble Mine threatens these commercial fisheries.

AIFMA is working with several federally-recognized tribes in the Kvichak and Nushagak drainages on matters related to a potential Pebble Mine. AIFMA's board of directors received and endorsed draft correspondence by the Tribes that requests EPA to initiate a public process under Section 404(c) of the Clean Water Act, to protect waters, wetlands, fish, wildlife, and subsistence and recreational uses in the Kvichak and Nushagak drainages and the commercial fisheries in Bristol Bay from direct, cumulative and secondary effects of discharges associated with metallic sulfide mining, including a potential Pebble Mine. We understand that the Tribes' letter has now been sent to EPA.

This letter confirms AIFMA's endorsement of the Tribes' letter and request for a 404(c) public process. AIFMA will do all it can to assist such a process. Thank you.

Sincerely yours,

David Harsila  
President

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EPA-BBL-4688

Richard  
Parkin [REDACTED]  
09/08/2010 07:48 PM

To: Dennis McLerran  
cc: Michael Szerlog, Michelle Pirzadeh  
bcc:  
Subject: Fw: \*\*Updated briefing doc for Friday's meeting

Hi Dennis,

Staff developed the attached matrix in response to our discussion yesterday. I hope it meets your needs. I used it today to brief Nancy Stoner and a cast of many. I asked them if it would be useful for the meeting on Friday and they said yes, it is easier to follow than the detailed options and proposal papers. Though I think we should send those along as back ground. We made a few changes to the matrix at their suggestions. Let me know if you want any changes or something different. Thank you.

Rick Parkin  
U.S. EPA, Region 10  
[REDACTED]

----- Forwarded by Richard Parkin/R10/USEPA/US on 09/08/2010 04:42 PM -----

From: Michael Szerlog [REDACTED]  
To: Richard Parkin [REDACTED]  
Cc: Marcia Combes [REDACTED], Linda Anderson-Carnahan [REDACTED], David Allnutt [REDACTED], Sally Thomas [REDACTED], Patricia McGrath [REDACTED], Cara Steiner-Riley [REDACTED], Phil North [REDACTED], Mike Bussel [REDACTED]  
Date: 09/08/2010 03:06 PM  
Subject: \*\*Updated briefing doc for Friday's meeting

---

Rick and all,

Let me know if you have any questions regarding the edits or any additional changes. I added more pros and cons in IB, a con in IIB, a pro in IIbi and a con in IIBii.



Bristol Bay HQ Briefing 9-10-2010.doc

Thanks

Michael J. Szerlog, Manager  
Aquatic Resources Unit  
Ecosystems, Tribal, and Public Affairs Office  
United States Environmental Protection Agency  
[REDACTED]

**Bristol Bay 404(c) Discussion Matrix**  
**Updated for HQ Briefing 9/10/2010**

I. Timing	Pros	Cons
A. During the permitting process	<ol style="list-style-type: none"> <li>1. Traditional process</li> <li>2. Permit and NEPA processes will generate considerable information informing the decision.</li> </ol>	<ol style="list-style-type: none"> <li>1. Proponents will have spent tens of millions of dollars.</li> <li>2. Little EPA involvement in determining information to be collected and analyzed.</li> <li>3. If EPA vetoes the resulting permit, only that project would be prohibited, potentially setting up subsequent rounds of permitting, vetoing, etc.</li> <li>4. Political backlash will be much worse after NEPA and 404 processes.</li> </ol>
B. Proactive before permit applications	<ol style="list-style-type: none"> <li>1. Preamble to the regulations expresses preference for advance 404(c) action.</li> <li>2. A proactive 404(c) will provide the regulated community clarity on what can and cannot be permitted allowing for more efficient and timely development of permitted projects.</li> <li>3. An advanced process can facilitate targeted information collection and better planning by project proponents.</li> <li>4. Promotes sustainability goals. Can serve as a model of proactive watershed planning for sustainability. Similar to “alternative futures” watershed planning being used in Region 10.</li> <li>5. Responsive to Tribal concerns.</li> <li>6. Able to define the area you are protecting.</li> <li>7. OGC indicated at 9/8/10 meeting that EPA has clear authority to issue 404(c) proactively.</li> </ol>	<ol style="list-style-type: none"> <li>1. Never been done before in the history of the CWA.</li> <li>2. Immediate political backlash.</li> <li>3. Immediate dedication of resources, however, we would refocus work to address highest priority.</li> <li>4. Litigation risk.</li> <li>5. Difficulty in defining restrictions, however, restrictions could be geographically based (watersheds surrounding ore body), activity-based (discharges resulting from sulfide ore mining), threshold-based (limit on volume of fill being discharged), or a combination of any of the above.</li> </ol>

II. Process	Pros	Cons
A. Regulatory decision making mode – 404(c) process	<ol style="list-style-type: none"> <li>1. Established legal procedure.</li> <li>2. EPA control of the process and decision.</li> </ol>	<ol style="list-style-type: none"> <li>1. There is no real public discussion – public involvement is to comment then sue if they have the resources (NEPA, 404 permit, 404(c)).</li> <li>2. EPA would have less control of the “spin” and political debate.</li> </ol>
B. Inclusive public discussion : 1) Address three key questions 2) Hold three public information sessions 3) Develop decision document for RA as output	<ol style="list-style-type: none"> <li>1. EPA can begin the process in a neutral position, collect information, provide information to public, and building a position iteratively.</li> <li>2. Starting in a neutral position can deflect political backlash.</li> <li>3. Building a position iteratively by breaking the process into questions to be addressed can help build a public position and derail opposition.</li> <li>4. Can involve State and Tribes upfront and work to meet their needs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Possible FACA complications, however, process could be structured to alleviate those concerns.</li> <li>2. Longer timeframe than just starting the 404(c) process</li> <li>3. More Resources</li> <li>4. At the end of the public discussion, if EPA does not decide to enter into 404 (c) process there is a risk we could get sued.</li> </ol>
i. As part of the 404(c) process	<ol style="list-style-type: none"> <li>1. Established legal/regulatory process/framework.</li> <li>2. Holds 404 permitting in abeyance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Sets precedent for future 404(c) actions, however, we could argue only for proactive use and not veto.</li> <li>2. Not adhering strictly to the regulation.</li> </ol>
ii. Leading to a decision whether to initiate the 404(c) process.	<ol style="list-style-type: none"> <li>1. Starts in a neutral position</li> <li>2. Open and transparent process leading to a public recommendation.</li> <li>3. Helps to develop a stronger record upfront.</li> <li>4. Expands on Lisa Jackson’s priorities – Protecting America’s waters; Expanding the Conversation on Environmentalism and working for Environmental Justice; and building strong State and Tribal Partnerships</li> </ol>	<ol style="list-style-type: none"> <li>1. May have to address complications in representing 36 Tribes.</li> <li>2. Does not hold 404 permitting in abeyance and PLP or other mining companies could submit a permit application with the Corps.</li> </ol>

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EPA-BBL-4728

Phil North [REDACTED]

05/25/2010 09:04 PM

To Michael Szerlog

cc

bcc

Subject Pebble Lead

Hi Michael,

I see from Patty's message to Dennis McLarren that John Pavitt's time as the Pebble Project Manager has timed out. She says that they may wait until permit applications are submitted before identifying a new project manager. I think we ought to assert that the project manager needs to be from either the NEPA review team or ARU since these are the programs that will have a regulatory role. Further, as part of our effort to advance 404(c) sooner than later, I think we ought to suggest to Dennis that we not wait.

In addition to ARU and NEPA review staff I suggest we ask if Dave Tomten is available to help us with mine waste issues.

Phil

Phillip North  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

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EPA-BBL-4845

Phil North [REDACTED] To: Michael Szerlog  
06/29/2010 10:23 AM cc  
bcc  
Subject: Fw: options paper

Hi Michael,  
Here is a suggestion from Jeff Parker that seems worth considering.

Phil

Phillip North  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."  
----- Forwarded by Phil North/R10/USEPA/US on 06/29/2010 09:23 AM -----

From: "jeff parker" [REDACTED]  
To: Cara Steiner-Riley [REDACTED]  
Cc: Phil North [REDACTED]  
Date: 06/28/2010 09:32 PM  
Subject: options paper

---

Cara,

One option that EPA might consider is to commence a 404(c) process based on the 2006 applications. Here is a link to the 2006 applications: <http://dnr.alaska.gov/mlw/mining/largemine/pebble/waterapp.htm>

EPA could ask PLP for any updated designs (even though they presumably might not be final), and proceed based on the 2006 applications and whatever PLP provides in the way of additional designs, if any.

This has advantages. It is similar to Bayou Aux Carps, where there had been designs but no application was then pending. And it has advantages in the event that PLP challenges any 404(c).

I am available tomorrow to discuss this if you wish, and I leave for Montana for 10 days on Wed. AM.

Jeff

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EPA-BBL-4866

Mary  
Thiesing, [REDACTED]  
12/16/2009 07:06 PM

To Phil North, Michael Szerlog  
cc  
bcc  
Subject Re: Pebble

Phil,

I agree with you on practically everything, but especially on the need for ARU to lead the discussion. We have the authority to stop this project, and may consider exercising that authority; consequently, we should be the ones to shape the discussion. However, I also think, as you rightly pointed out, that we need to approach this as a team effort, even within ARU. As project lead, you will get asked to brief people on a moment's notice, and just pulling together the briefing packages will be daunting and often happen without a lot of warning. I definitely think we need to start gathering information right now and continue to do so as the project gains momentum. I think what we have to do is approach it as though there will be a 404(c), and we don't need to wait for a new RA to do that; however, we will be getting one very quickly, and there will be no 404(c) without the RA's complete, total, and most importantly, continued buy-in. We can be prepared to give the RA a suggested direction when he/she comes on board. This thing will be developing for years, and we aren't likely to get RA support or HQ support for a pre-emptive 404(c) on a project this big before the information is developed. The other thing is--and I have seen this happen with my own eyes--is that you have to keep doing a gut check, especially with HQ, because support waxes and wanes depending on the administration, which session of Congress, whether it's an election year, etc. The best thing you can do is build a HUGE record, so that if political pressure causes HQ to withdraw support, you have a big public record which still spells out the facts.

So, while you aren't going to get commitments on a 404(c) right now, you are absolutely right in that we need to build our information "war chest". You did a fantastic job (I thought) in blocking out a very persuasive set of arguments on this. To flesh them out, I would recommend the following:

1. Don't base your arguments on impacts 200 or more years out. A political appointee will make the decision, and they are only interested in what's happening now that they can see, touch, etc. All that a court has to hear is that the project proponent will take every possible precaution to protect the environment and they think that the government is being unreasonable in insisting it's not enough. What would be helpful is to identify mines of the same type, and preferably, by the same project proponent, that have had adverse environmental effects that weren't addressed by the permit or that happened anyway. Lists of impacts, and especially, pictures where despite "industry best efforts", they trashed the surrounding environment and left a cleanup to the government. This is especially significant because we will need to do tribal outreach, and they need to understand what the risk of irreversible jeopardy really is, rather than just getting bought off by the industry.
2. That being said, I think we still want the persuasive hydrology and geology data to show potential effects, if it can be assembled, including earthquake risk in real time.
3. Pictures of the endangered species are useful, but don't go more than one slide on the subject. Get a dollar amount on the value of the fishery as well as the number of people it employs and the portion of the world's catch it reopresents (I think you said 43% for the state? How much of it comes from Bristol Bay?)

By the way--keep this under your hat, because I wasn't authorized to make it public and I am not sure who knows yet--but Region 3 is doing a 404(c) on that mountaintop mining project. I believe the PD will hit the Federal Register in January.

Mary Anne

Phil North

Hi Michael, I learned from the Mining Team meet...

12/16/2009 03:33:01 PM

Phil North, [REDACTED]

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12/16/2009 03:33 PM

To Michael Szerlog [REDACTED]

cc Mary Thiesing [REDACTED]

Subject Pebble

Hi Michael,

I learned from the Mining Team meeting today that the Pebble Mine is on Lisa Jackson's screen and she wants some Region 10 folks to travel to DC to brief her in mid January. Mary Anne was there so I include her here in case she wants to comment further.

1. I think it is important that ARU continue to lead the Pebble discussion. EPA will not be the lead on NEPA. So our involvement will be in NEPA review, 404 review, or 404 veto. The big issues with the Pebble Mine are all to do with aquatic ecosystems, from the headwaters right out into the North Pacific. ARU is the part of EPA that has the expertise in aquatic ecology needed to adequately review this project. And whether we simply comment on the EIS and 404 permit or initiate a 404C it will be ARU's initiative that will influence the project. So I think it is imperative that we play a leading role in discussions within EPA, including setting the tone of the presentation to the Administrator. Patty has said that she will seek our council as she develops that presentation, but I want to bring this to your attention so you can weigh in (if you wish) as the opportunity arises in management circles.

2. I am concerned that if we wait for direction from a new RA we will fall behind the curve. Based on Patty's paraphrase of Lisa Jackson's comments about Pebble (that unlike Kensington, perhaps we could do something about Pebble), things could move along quickly once the Administrator is briefed. As Mary Anne said there will be quite a bit of background documentation to do on this project, regardless of our chosen action. I would hate to put us in a position of having to spend a lot of extra time catching up when we could be getting ahead now. Regardless of our action (review or 404c) I think it is inevitable that on this project we are going to have a great deal of work to do. Better to get ahead of it. With this in mind I have the following recommendations:

a. We should have a discussion within ARU about the recommendations I made in my presentation. We should invite Lorraine to discuss whether there is adequate information on geochemistry and hydrogeology to make conclusions about the mine. We should decide on the time frame for considering mining effects: the waste will be in place *forever*. And we should develop a position, decide not to develop a position at this time or something in between. The reason to do this is that, if the Administrator asks us for a position, we will have an answer and sound reasons.

b. We should begin to identify the information needed for a review or 404C and begin to collect that information. Of course, as demonstrated in the presentation, I have already started this process as part of my day-to-day duties. But I have only skimmed the surface. This is such a large project, in every imaginable dimension, that it will take a much more significant effort than I can apply when treating it as just another project. I suggest that this be a team effort and that we start to discuss the information needs and start to compile that information now.

May Anne - any thoughts?

Phil

Phillip North  
Environmental Protection Agency  
Kenai River Center  
[REDACTED]

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[REDACTED]

"To protect your rivers, protect your mountains."

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EPA-BBL-6076

Richard  
Parkin [REDACTED]  
12/29/2010 03:59 PM

To: Cara Steiner-Riley  
cc  
bcc: Richard Parkin  
Subject: Fw: Phone conversation with Jeff Parker 2nd message

Cara, in terms of the record for the decision making on the 404(c) petitions, are message chains such as this one, protectable from FOIA? should we be concerned with that? Should are subject line include something like Atty/Client Privileged or what ever? Should we just do that routinely? For example the message chain between me and Patty that I cc'd you on showed disagreement within the agency about the 404(c) so I added a privileged statement to it and sent it to you. Should we implement something like that among the team for all messages in which we are deliberating about the 404(c)?

Rick Parkin  
U.S. EPA, Region 10  
[REDACTED]

----- Forwarded by Richard Parkin [REDACTED] on 12/29/2010 12:54 PM -----

From: Richard Parkin [REDACTED]  
To: Keith Cohon [REDACTED]  
Cc: Phil North [REDACTED], Cara Steiner-Riley [REDACTED], Michael Szerlog [REDACTED]  
Date: 12/29/2010 12:53 PM  
Subject: Re: Phone conversation with Jeff Parker

Thanks Keith and Phil... We need to have one main spokesman for Bristol Bay and that's me. But for legal questions from lawyers I should refer him to our legal staff or probably better speaking with them jointly with our attorney. Then keep records. If we get too casual about it we may regret what we see being attributed to us in the future. Already I feel that way about how that message was interpreted. Dynamics wise I think we have been a bit casual.

Rick Parkin  
U.S. EPA, Region 10  
[REDACTED]

Keith Cohon | I don't want you all to feel like I'm scolding, or ma... | 12/29/2010 10:25:38 AM

From: Keith Cohon [REDACTED]  
To: Phil North [REDACTED], Richard Parkin [REDACTED]  
Cc: Cara Steiner-Riley [REDACTED], Michael Szerlog [REDACTED]  
Date: 12/29/2010 10:25 AM  
Subject: Re: Phone conversation with Jeff Parker

I don't want you all to feel like I'm scolding, or making a unilateral decision about communications with Jeff. You all can decide, or we can decide together, how to handle communications with him. I honestly don't know the dynamics of the different relationships, or his role in the case. I just had a few warning bells go off in my mind during our conversation, and I wanted to pass them along so the decision can be well informed.

Keith Cohon, Assistant Regional Counsel  
EPA Region 10  
[REDACTED]

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Phil North

[I will forward Jeff to Cara per your suggestion. ...](#)

12/29/2010 09:19:02 AM

From: Phil North [REDACTED]  
To: Richard Parkin [REDACTED]  
Cc: Keith Cohon [REDACTED], Cara Steiner-Riley [REDACTED], Michael Szerlog [REDACTED]  
Date: 12/29/2010 09:19 AM  
Subject: Re: Phone conversation with Jeff Parker

---

I will forward Jeff to Cara per your suggestion.

Phillip North  
Ecologist  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

Richard Parkin

[I don't believe I had a conversation with Jeff this...](#)

12/27/2010 05:38:30 PM

From: Richard Parkin [REDACTED]  
To: Keith Cohon [REDACTED]  
Cc: Phil North [REDACTED], Cara Steiner-Riley [REDACTED], Michael Szerlog [REDACTED]  
Date: 12/27/2010 05:38 PM  
Subject: Re: Phone conversation with Jeff Parker

---

I don't believe I had a conversation with Jeff this go around. I called you instead Keith. Perhaps I should have called Cara but his message to me was about tribal trust. I will forward him to Cara in the future and Phil please do the same please. Thanks  
Rick Parkin  
U.S. EPA, Region 10  
[REDACTED]

Keith Cohon

[I just want to clarify that I'm not against helping...](#)

12/22/2010 12:23:35 PM

From: Keith Cohon [REDACTED]  
To: Phil North [REDACTED], Cara Steiner-Riley [REDACTED]  
Date: 12/22/2010 12:23 PM  
Subject: Re: Phone conversation with Jeff Parker

---

I just want to clarify that I'm not against helping Jeff or his clients, or siding with them on the substantive issues. I just have some concerns that Jeff is mining his conversations with Phil and Rick for legal principles and arguments, and also getting second hand info from Phil about what Rick is saying in internal e-mail messages. Both of these create a lot of risk of Jeff misunderstanding and misstating the law and/or EPA's position on the law, which isn't in anyone's interest.

---

Keith Cohon, Assistant Regional Counsel  
EPA Region 10  
[REDACTED]

PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE

fax: [REDACTED]

Keith Cohon

attorney-client communication privileged; do not...

12/22/2010 11:35:54 AM

From: Keith Cohon [REDACTED]  
To: Cara Steiner-Riley [REDACTED] Phil  
North [REDACTED]  
Date: 12/22/2010 11:35 AM  
Subject: Phone conversation with Jeff Parker

**attorney-client communication**  
**privileged; do not release**

I had a conversation with Jeff Parker about the trust responsibility and other stuff, and I wanted to fill you in.

The conversation was yesterday (12/21).

1. My observation: Jeff is talking straight to Rick and Phil, regarding a matter in which EPA is represented by counsel (Cara). I'm sure the Rules of Professional Responsibility in Alaska are like they are everywhere, and that they prohibit Jeff from talking to either Rick or Phil without Cara's consent. It's kind of up to Cara to call him on this, if we care; we also might want to have an internal discussion about whether whether Phil and/or Rick want to refer him to Cara as well. We are engaged in a potentially adverse proceeding with them (the petition, possible litigation), and he's a lawyer who's kind of pumping us (me included) for information he can use to help his client. It sounds like he's talking to Phil about their 404(c) petition, the status of it, and how to help move it forward -- he certainly did so with me (see below). He's also using Rick and Phil (and me) as legal authorities.

2. Jeff was intrigued by the concepts of "domestic dependent nations" and the "trust responsibility" that he heard about from Phil and/or Rick. Jeff was looking for me to basically educate him on these concepts, which is remarkable considering he represents Indian Tribes. Jeff says Phil says Rick says that the trust responsibility means that if the State and the Tribes disagree, then we have to take the Tribes' side. [This kind of illustrates that problems of having a lawyer for another party free to call around the Agency trolling for information he can use on behalf of his client.]

3. I explained the differences between the specific and general trust responsibilities. Specific is where we're managing assets the U.S. is holding in trust on behalf of Indians or an Indian Tribe, and doesn't apply here in any way. General is procedural, and says we'll consult with tribes, and consider and give weight to their concerns. I passed along the citations to the Gros Ventre and HRI judicial decisions, which are important recent cases concerning the scope and limits of the trust responsibility, and gave him a couple of hints about what they say and why he should read them to get a better understanding.

4. Jeff was particularly interested in Phil's comment that Rick supposedly says that Tribes get precedence over the State. I explained that I have the actual Rick Parkin e-mail that Phil was probably talking about. First, it's talking only about process, not substance -- about involving the Tribe and the State in our decisionmaking process, not about doing what they want. Second, it says that the obligation to consult govt-to-govt with the Tribe is a concept that applies to the Tribe and not the State; so again, the emphasis is on whether and how we involve the Tribes procedurally, not the substance of our decision. We have separate reasons for talking to the State, as a number of our statutes provide roles for the State, and many of our respective programs overlap or interact in ways that call for close coordination with them. So it's not as if Rick is saying the trust responsibility requires us to talk with Tribes "more" than with the State. Rick's message correctly says that in making a decision on the Tribes' petition, we would offer them the opportunity to consult with us.

5. He asked for my advice as to how to push their petition forward -- should he send a letter to HQ politicals, etc. I referred him to Cara.

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I don't know the whole situation or communication dynamic, but I think it's worth thinking about funneling communications with him through Cara. He is not very knowledgeable about at least some key aspects of Indian Law, and he's taking Phil's comments about Rick's comments, drawing incorrect conclusions about Indian Law, and trying to use that as a basis for his strategy in dealing with us. This could get pretty messy, especially if he starts making incorrect legal arguments and thinking it's based on our own statements.

---

Keith Cohon, Assistant Regional Counsel  
EPA Region 10



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EPA-BBL-6189

David Evans [REDACTED]

09/01/2010 07:18 AM

To Palmer Hough, "Brian Frazer", "Christopher Hunter"

cc

bcc

Subject Re: Fw: Pebble Mine

It is anything but clear what Sussman is contemplating as a "notice of intent". I think the planned meeting with him and R10 will serve to clarify this - and we can have influence in the buildup to it. We need to schedule time to meet with Denise and OW next week, which I'd like Michael Szerlog and Rick Parkin to participate in.

David Evans, Director

Wetlands Division

Office of Wetlands, Oceans and Watersheds

[REDACTED]

-----Sent from my BlackBerry Wireless Handheld  
Palmer Hough

----- Original Message -----

**From:** Palmer Hough

**Sent:** 08/31/2010 09:28 PM EDT

**To:** David Evans

**Cc:** Brian Frazer; Christopher Hunter

**Subject:** Re: Fw: Pebble Mine

Dave et al:

Thanks for sharing this email, very interesting. Here are some thoughts that I have after reading it.

While we have never gone down the route of a "preemptive" 404c action before, the statute supports it and the regs contemplate it. As clearly stated in the preamble to the final 404c regs there is no "other" process for a "preemptive" 404c, the threshold question for initiating (and indeed the entire 404c review process) is the same for any 404c action and is spelled out in 40 CFR 231.3(a):

"If the Regional Administrator has reason to believe after evaluating the information available to him...that an ``unacceptable adverse effect" could result from the specification or use for specification of a defined area for the disposal of dredged or fill material, he may initiate the following actions...[i.e., send a 15-day letter to the Corps and applicant]"

Based on our conversation with Richard Parkin last Friday, it does not sound like the Region is prepared to do this - based on the "information available" and would rather initiate a 12 month fact finding process before deciding whether or not it would like to send a 15-day letter.

I am very intrigued regarding Bob S's reference to "steps we can take to move down the 404(c) road without actually making the determination -- for example, issuing a notice of intent to use 404(c) and taking comment."

Can we get more clarity regarding what this means? Would this be an entirely new step completed prior to sending a 15-day letter for the purposes of helping EPA determine if it would send a 15-day letter? While the regs don't contemplate such a step and a close read of the preamble might suggest such a step is inappropriate it is worth discussing and I would be curious to hear more about it.

A "pre-15-day letter" notice of intent to use 404c would give the Region the time and perhaps the since of urgency/momentum it is looking for to figure out if it wants to really start a 404c. One downside is that we

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would create the expectation that we would do such a notice of intent for any future preemptive 404c's.

-Palmer

---

Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division  
U.S. EPA Headquarters [REDACTED]  
[REDACTED]  
www.epa.gov/wetlands

David Evans

FYI David Evans, Director

08/31/2010 11:05:06 AM

From: David Evans [REDACTED]  
To: "Brian Frazer" [REDACTED] >, "Christopher Hunter" [REDACTED] >, "Palmer Hough" [REDACTED] >  
Date: 08/31/2010 11:05 AM  
Subject: Fw: Pebble Mine

FYI  
David Evans, Director  
Wetlands Division  
Office of Wetlands, Oceans and Watersheds  
[REDACTED]  
[REDACTED]

-----Sent from my BlackBerry Wireless Handheld  
Bob Sussman

----- Original Message -----

**From:** Bob Sussman  
**Sent:** 08/31/2010 09:38 AM EDT  
**To:** Dennis McLerran  
**Cc:** Bob Perciasepe; Denise Keehner; "Dave Evans" [REDACTED]  
Gregory Peck; Marianne Holsman; Michelle Pirzadeh; Mike Bussell; Nancy Stoner;  
Peter Silva; Richard Parkin; Steven Neugeboren  
**Subject:** Re: Pebble Mine

Dennis -- It's fine to wait a week or so. Shall we plan on a call in about two weeks? I can set it up if you wish. Let me know. .

The threshold decision, I think, is whether to move ahead with the 404(c), which would be a very novel approach on our part. There are pros and cons and I think the priority should be identifying those pros and cons and the amount of work we would need to do to justify a 404(c) were we to go forward. Making these threshold decisions should be our near-term focus and I believe the Administrator will definitely want to be briefed on our recommendation.

Based on the meeting with NRDC, there may also be steps we can take to move down the 404(c) road without actually making the determination -- for example, issuing a notice of intent to use 404(c) and taking comment.

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Why don't I join you on the call with Bob P? I think that will get us all on the same page. Could you coordinate the scheduling with my and Bob's office?

Robert M. Sussman  
Senior Policy Counsel to the Administrator  
Office of the Administrator  
US Environmental Protection Agency

Dennis McLerran Bob: That likely won't be until next week. My exe... 08/30/2010 07:54:34 PM

From: Dennis McLerran  
To: Bob Sussman  
Cc: Mike Bussell; Denise Keehner; "Dave Evans"  
Gregory Peck; Marianne  
Holsman; Nancy Stoner; Richard  
Parkin; Bob Perciasepe; Peter  
Silva; Michelle Pirzadeh; Steven  
Neugeboren  
Date: 08/30/2010 07:54 PM  
Subject: Re: Pebble Mine

Bob:

That likely won't be until next week. My executive team and I are all in Juneau until Thursday at our annual Tribal Leadership Summit. I will check in with my folks tonight or tomorrow morning on timing and will get back to you. We discussed the recommendation last Friday and I asked them some legal questions such as whether the process being recommended would trigger NEPA review. I also am working on a call with Bob Perciasepe to talk with him about timing and other issues.

Dennis

Bob Sussman

----- Original Message -----

**From:** Bob Sussman  
**Sent:** 08/30/2010 07:39 PM EDT  
**To:** Dennis McLerran  
**Cc:** Mike Bussell; Denise Keehner; "Dave Evans"  
Gregory Peck; Marianne Holsman; Nancy Stoner; Richard Parkin; Bob Perciasepe;  
Peter Silva; Michelle Pirzadeh; Steven Neugeboren  
**Subject:** Re: Pebble Mine

Dennis. I'm happy to organize out of my office, provided you're ready. I want to make sure you've consulted with OW before we schedule a discussion. When will that be, do you think?

Robert M. Sussman  
Senior Policy Counsel to the Administrator  
Office of the Administrator  
US Environmental Protection Agency

Dennis McLerran Bob: That sounds like a good plan. We're workin... 08/30/2010 07:21:46 PM

From: Dennis McLerran  
To: Bob Sussman; Peter Silva; Nancy  
Stoner  
Cc: Steven Neugeboren; A, Gregory Peck; Denise  
Keehner; "Dave Evans"; "Richard Parkin"  
"Mike Bussell"; "Michelle  
Pirzadeh"; "Marianne Holsman"  
"Bob Perciasepe"  
Date: 08/30/2010 07:21 PM

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Subject: PRIVILEGE CLAIMS NOT WAIVED FOR ANY OTHER PURPOSE  
Re: Pebble Mine

---

Bob:

That sounds like a good plan. We're working on a recommendation for a process for considering use of 404(c). I think it is a good idea to be working together on a recommendation on how to best approach this as we need to decide how to gather the appropriate information to support any decision the Agency would make on an issue this big. We also need to decide on the best timing and whether a decision would trigger NEPA. Also, we are in the process of delegating NPDES authority to the State of Alaska with that scheduled to occur soon for the mining sector.

Do you want to work on scheduling a discussion out of Headquarters or do you want us to work on calendaring? I'd suggest we get moving quickly on a discussion.

Dennis McLerran  
Regional Administrator  
EPA Region 10

Bob Sussman

----- Original Message -----

**From:** Bob Sussman

**Sent:** 08/30/2010 06:22 PM EDT

**To:** Dennis McLerran; Peter Silva; Nancy Stoner

**Cc:** [REDACTED]; oren; Gregory Peck; Denise Keehner; Dave Evans

**Subject:** Pebble Mine

Dennis et al -- NRDC came in today to meet with a number of us on the Pebble Mine. Much of the discussion centered on the request of several groups for a 'preemptive' 404(c) determination. I know, Dennis, you've discussed this request with a number of the groups. It is a novel use of our authority and raises several questions but is also intriguing. As a result of her Alaska trip, the Administrator is aware of the concept and will probably want recommendations from the Region and OW. Do we have a process underway to develop recommendations? My thought would be to get this issue on the Administrator's calendar but first I'd like to meet with the program and Region to understand the direction we're advising.

How does this sound?

Robert M. Sussman  
Senior Policy Counsel to the Administrator  
Office of the Administrator  
US Environmental Protection Agency

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EPA-BBL-6416

David Evans/ [REDACTED]

To Palmer Hough

02/07/2011 05:46 PM

cc

bcc

Subject Re: Fw: Murkowski Welcomes EPA Study of Bristol Bay

Interesting spin on EPA's announcement/decision - her communications would suggest no 404(c) would be done until all the science is in (EIS?). Obviously, that's not what we have in mind....

Dave

-----Palmer Hough/ [REDACTED] wrote: -----

To: Denise Keehner/ [REDACTED], David Evans/ [REDACTED], Brian Frazer/ [REDACTED], Christopher Hunter/ [REDACTED], Gregory Peck/ [REDACTED], Ross Geredien/ [REDACTED], Julia McCarthy/ [REDACTED], Tanya Code/ [REDACTED], Jim Pendergast/ [REDACTED]  
From: Palmer Hough/ [REDACTED]  
Date: 02/07/2011 07:07PM  
Subject: Fw: Murkowski Welcomes EPA Study of Bristol Bay

FYI

---

Palmer Hough, Environmental Scientist  
[REDACTED]

Wetlands Division  
U.S. EPA Headquarters [REDACTED]  
[REDACTED]  
[www.epa.gov/wetlands](http://www.epa.gov/wetlands)

----- Forwarded by Palmer Hough/ [REDACTED] on 02/07/2011 07:15 PM -----

From: SHOREN BROWN < [REDACTED] >  
To: Bill Dunbar/ [REDACTED], Phil North/ [REDACTED], Palmer Hough/ [REDACTED]  
Date: 02/07/2011 07:03 PM  
Subject: Murkowski Welcomes EPA Study of Bristol Bay

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**From:** Dillon, Robert (Energy) [REDACTED]  
**Sent:** Monday, February 07, 2011 5:01 PM  
**Subject:** GOP ENR: Murkowski Welcomes EPA Study of Bristol Bay



FOR IMMEDIATE RELEASE  
(202) 224-6977  
FEBRUARY 7, 2011  
MEGAN HERMANN (202) 224-7875

CONTACT: ROBERT DILLON

## **Murkowski Welcomes EPA Decision to Study Bristol Bay Watershed**

WASHINGTON, D.C. - U.S. Sen. Lisa Murkowski, R-Alaska, today commended Environmental Protection Agency officials on their decision to assess the potential impacts of mining and other development projects on the Bristol Bay watershed.

"The EPA's decision to withhold judgment on the potential environmental impact of projects, like the Pebble Mine, until all the scientific information has been collected and analyzed is a prudent decision," Murkowski said.

Opponents of the Pebble Mine last year petitioned the EPA to preemptively block the development. EPA Administrator Lisa Jackson called Murkowski today to tell her the agency was instead commissioning further study of the region.

Murkowski, the ranking member of the Senate Energy and Natural Resources Committee and the Interior Appropriations Subcommittee, said the agency's pronouncement is in keeping with President Obama's pledge to base his administration's decisions on the best available science.

"I am committed to letting the science decide whether mining is right for the Bristol Bay region, but any attempt to prejudge a project before the environmental work is finished would be a troubling signal, as well as a clear violation of the environmental review process," Murkowski said.

Pebble, located in Southwest Alaska to the north of Lake Iliamna, is one of the largest prospects for copper, gold, molybdenum and silver in the world. The companies working on the mine proposal have invested more than \$100 million in research, studies and field work in preparation to begin applying for the necessary environmental permits in 2011 or 2012.

Bristol Bay is also home to the world's biggest salmon fishery, and it is

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because of the fishery's importance to the state's economy and the traditional subsistence activities of local residents that Murkowski has reserved judgment on whether mining should occur until the environmental assessment is completed.

"I remain staunchly committed to protecting the health of the Bristol Bay watershed, but fishing and subsistence alone are not enough to ensure the survival of our communities," Murkowski said. "I will not trade fish for minerals, but I believe that companies willing to invest in our region deserve to be given a fair shake to present their proposals."

Murkowski told Jackson that she hopes this decision will start the process of improving communication between Alaska officials and the EPA on a host of issues, including Shell's air permit for its Beaufort Sea exploration plan, Healy coal, ConocoPhillips' CD-5 oil field and marine air pollution issues.

###

*For further information, please contact Robert Dillon at 202.224.6977 or [robert.dillon@energy.senate.gov](mailto:robert.dillon@energy.senate.gov) or Megan Hermann at 202.224.7875 or [megan.hermann@energy.senate.gov](mailto:megan.hermann@energy.senate.gov) .*

*Visit our website at <http://energy.senate.gov/public/>*

Robert Dillon  
Republican Communications Director  
Senate Energy and Natural Resources Committee  
[Robert.dillon@energy.senate.gov](mailto:Robert.dillon@energy.senate.gov)  
(202) 224 6977 office  
(202) 285 6783 cell

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EPA-BBL-842

Christopher  
Hunter [REDACTED]  
11/04/2010 07:23 AM

To: Palmer Hough  
cc  
bcc  
Subject: Re: Call from Jeff Parker regarding Bristol Bay 404(c) action

Also, any explanation on how he knew about it?

---

Palmer Hough      Phil/Michael: We got a call yesterday from Jeff P...      11/04/2010 09:23:40 AM

From: Palmer Hough [REDACTED]  
To: Phil North [REDACTED], Michael [REDACTED]  
Cc: Heidi Karp [REDACTED], Christopher Hunter [REDACTED], Brian  
Frazier [REDACTED], David Evans [REDACTED]  
Date: 11/04/2010 09:23 AM  
Subject: Call from Jeff Parker regarding Bristol Bay 404(c) action

---

Phil/Michael:

We got a call yesterday from Jeff Parker, counsel for the six tribes that initially requested EPA 404(c) action in Bristol Bay. His voicemail message indicated that it would be in these tribes best interest if EPA initiated its 404(c) action (i.e., issued a 15-day letter) now rather than waiting several months to complete the planned analysis and public outreach.

Can you elaborate a bit more on his rationale?

Thanks, Palmer

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EPA-PNL-1517

Phil North [REDACTED] To: Doug.Limpinsel  
05/14/2010 01:57 PM cc  
bcc  
Subject: Re: BB smolt numbers

The earliest year I could find sockeye escapement numbers was 2000. That is not quite right for 2001 smolts but if we use that number the egg to smolt survival was 5%. Escapement in 2000 was 1,827,780. Which translates to about 6,397,230,000 eggs. So 325,914,951 smolts is 5% survival. Of course 1999 would be the escapement year to use. But I could not find an escapement number for 1999. Where do you get 15%?

Did you mean .15% below or 15%?

Can you share the information you got?

Things are moving along in EPA. I remain optimistic. I am hoping that I will be able to work on this more officially soon.

Phillip North  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

Doug.Limpinsel

Phil, Colleagues in ADFG (Baker/Fair) forwarde...

05/14/2010 07:43:56 AM

From: [REDACTED]  
To: Phil North, [REDACTED]  
Date: 05/14/2010 07:43 AM  
Subject: BB smolt numbers

Phil,

Colleagues in ADFG (Baker/Fair) forwarded me some very important information. Almost overwhelming. It would appear ADFG has been generating numbers, estimates of outbound smolt to adult returns, and % marine survival.

I'm looking at numbers (Kvichak/Sockeye) that support Kens 10% rule of thumb, and indicate 10% maybe a little low. For example adult returns per out bound smolt, between 1985-1994, max 40% to min .01%, with an average from all numbers for the same time period of .15%.

2001 estimates alone of total "sockeye" smolt emigrating the Kvichak was 325,914,951. With the Egegik and Ugashik rivers, total was 391,284,249.

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EPA-PNL-1623

Phil North [REDACTED] To Palmer Hough  
01/28/2011 07:58 PM cc  
bcc  
Subject Fw: FYI: Fish Passage Workshops - Status

Hi Palmer,

If anyone is interested, this rant by Matt addresses an example of why I say that the State of Alaska has very little in the way of interest, much less policy, to protect habitat. They do a great job of managing the salmon catch so that ample fish get to the spawning grounds but they don't protect the spawning grounds themselves, or the rearing areas.

This is directly relevant to why we need to use 404(c) in Bristol Bay.

Phil

Phillip North  
Ecologist  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

----- Forwarded by Phil North [REDACTED] on 01/28/2011 03:49 PM -----

From: Matthew LaCroix [REDACTED]  
To: [REDACTED] Mark Jen [REDACTED] Gayle Martin [REDACTED]  
Date: 01/28/2011 02:43 PM  
Subject: Fw: FYI: Fish Passage Workshops - Status

---

All,

This is a heads-up about fish passage workshops coming soon to a community near you. I attended the prototype event here in Anchorage last spring, and would not characterize the training as a positive thing. This training is not directed towards *"maintaining and restoring the chemical, physical, and biological integrity of the Nation's waters,"* or *"to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people,"* or even *"to protect, maintain, and improve the fish, game, and aquatic plant resources of the state."* It is rather about rationalizing impacts to aquatic resources by establishing the far lower standard of "providing fish passage" to certain life stages of certain "target species" during certain flow conditions.

The inadequate (even for fish passage) design standards of the ADOT&PF/ADF&G culvert MOA are held up as a model. The effect is of these standards becoming de facto permitting standards. Rather than identifying the LEDPA for a particular project, applicants instead design to the level of impairment ADF&G is willing to authorize. Forget about designing for sediment or debris transport, the conveyance of flood flows, passage for non-target fish species, riparian connectivity, maintenance of habitat or stream health. The single-minded focus on loosely-defined "fish passage" (seventy percent of culverts in the Mat-Su

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block the target species) in lieu of stream health, aquatic function, or integrity is a race to the bottom where our aquatic habitats and the public are the losers.

ADOT&PF benefits from lower, less expensive design criteria, ADF&G Habitat permittees don't have to fight with applicants, and the FWS Restoration program ensures itself a never-ending supply of bad culverts to replace with slightly better culverts. These "partners" would rather collectively benefit their programs than the resource. It's a cynical circle where we are on the outside working to bring everyone back up to the much more difficult to achieve standards that exist in statute and regulation. With ADF&G and FWS actively spreading the "fish passage" message, I foresee a long, uphill battle to push for the LEDPA and maintain the integrity of our aquatic resources.

Sorry for the rant, but I don't believe we should be endorsing design criteria that have such a high failure rate for the single function (fish passage) they supposedly maintain. But that's OK, because according to Mac McLean there is no state requirement for the provision of fish passage. And this completes our transition to "no standards at all." Thanks for listening.

Matt

----- Forwarded by Matthew LaCroix [REDACTED] on 01/28/2011 01:34 PM -----

Ann Rappoport/R7/FWS/DO I  
To Betsy McCracken [REDACTED] Maureen deZeeuw [REDACTED], Phil [REDACTED], Frances Mann [REDACTED]  
cc Lynnnda Kahn [REDACTED] Douglas Palmer [REDACTED] Sarah Conn [REDACTED] S, Jewel Bennett [REDACTED]  
01/27/2011 12:02 AM  
Subj Fw: FYI: Fish Passage Workshops - Status ect

not happening in Anchorage . . . but if you have DOT partners who would benefit by attending, please send them to the website!

Ann Rappoport, Field Supervisor  
Anchorage Fish and Wildlife Field Office

[REDACTED]

[REDACTED]

----- Forwarded by Ann Rappoport [REDACTED] on 01/26/2011 11:16 PM -----

Mary Price [REDACTED]

01/26/2011 11:50 AM

To Ann Rappoport [REDACTED]  
cc  
Subject FYI: Fish Passage Workshops - Status

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----- Forwarded by Mary Price [REDACTED] on 01/26/2011 11:49 AM -----

**William Rice/R7/F WS/DOI**  
To Mary Price [REDACTED], Mike Edwards [REDACTED], Mitch Osborne [REDACTED], Neil Jeffrey  
Stichert [REDACTED], William Rice [REDACTED], David Wigglesworth [REDACTED], Jeffrey  
Heys [REDACTED], Heather Fuller [REDACTED], John Hudson [REDACTED], Cecil  
01/11/2011 Rich [REDACTED], Katrina Mueller [REDACTED]  
11:33 AM cc John Delapp, Rod Simmons [REDACTED]  
Su Fish Passage Workshops - Status  
bje  
ct

Update on the Workshops -

Our 2-day fish passage workshops are coming along nicely. Attached is the latest agenda for Fairbanks, which is a good template for Juneau and Kenai.

April 7-8, Fairbanks (confirmed)

April 12-13, Juneau (almost confirmed)

April 28-29, Soldotna or Homer (soon to be confirmed)

The Fairbanks workshop will also be a great collaboration with Northern Region DOT - they are putting it onto their training website and are planning on about 12 DOT environmental folks attending. We have the retired and current hydraulic engineers from DOT giving a good portion of presentations also. DOT will also be arranging room and signup, and will be announced on the following link at some point - <http://dot.alaska.ecatts.com/lmsTrainingCalendar>. Mitch and I have started good contact with DOT up there and kudos to Gillian at ADFG for being a key link with DOT.

Juneau is moving very well, with the Forest Service (Don McDonell) looking to participate in the talks as well as others. Go Neil!

Kenai workshop will be in Soldotna or Homer. Hopefully Gary Walklin from DOT will help present on construction aspects. Mike to know more soon!

William Rice, P.E.  
Hydrologist  
U.S. Fish and Wildlife Service

[REDACTED]  
[REDACTED]  
[REDACTED]

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EPA-PNL-220

Kerim Aydin

01/07/2010 04:18 PM

To Phil North

cc Sarah.Gaichas

bcc

Subject Re: North Pacific Salmon and Pebble

Hi Phil,

As I mentioned just a few things (1) a brief informal (email) request with a little more description of the write-up requested and where it will go (will it become part of another document etc.); I can see after that if the higher-ups want a more formal request; (2) If there's a deadline, or if there's not a hard deadline what's a timeframe that's useful to you and (3) we'll probably reference a couple of your estimates of smolts you sent.

I think that's it!

-Kerim

[REDACTED] wrote:

> Kerim and Sarah,

>

> I wrote up a brief summary of our discussion and sent it to staff in  
> Seattle who will be briefing the Administrator in DC about Pebble Mine.  
> That information will provide a palatable image of what previously we  
> were simply implying as nonspecific connections to the North Pacific  
> ecosystem.

>

> You had said that a write up was possible. What do you need from me to  
> start that write up?

>

> Phil

>

> Phillip North

> Environmental Protection Agency

>

>

> "To protect your rivers, protect your mountains."

>

>

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EPA-PNL-2256

Phil North [REDACTED] To Christopher Hunter  
05/17/2010 07:26 PM cc  
bcc  
Subject Re: Pebble brief

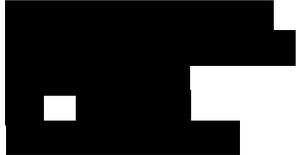
I made a few factual corrections.



Pebble Mine Overview 5-18-10 - Hunter.doc

I heard through the grape vine that all six of the village signatures have been collected (a logistical nightmare). We can expect the letter late next week.

Phillip North  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

Christopher Hunter Thanks Phil, I had drafted a 1--pager over the w... 05/17/2010 02:18:11 PM

From: Christopher Hunter [REDACTED]  
To: Phil North [REDACTED]  
Date: 05/17/2010 02:18 PM  
Subject: Re: Pebble brief

Thanks Phil,  
I had drafted a 1--pager over the weekend from the revised power point you sent, and our versions matched very closely - I just added a little material on the meeting with the RA and requests from Tribal groups. I'm going to send the overview to Brian Frazer and Dave Evans for briefing up the chain in OWOW and we'll see what the response is. If you see anything here you would like me to change, please let me know.

Chris  
[attachment "Pebble Mine Overview 5-18-10.doc" deleted by Phil North [REDACTED]]

Chris Hunter  
U.S. Environmental Protection Agency  
Office of Wetlands, Oceans, & Watershed



Phil North Hi Chris, Attached is a document I prepared for... 05/17/2010 02:29:45 PM

From: Phil North [REDACTED]  
To: Christopher Hunter [REDACTED]  
Date: 05/17/2010 02:29 PM

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Subject: Pebble brief

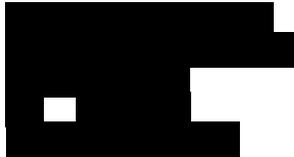
---

Hi Chris,

Attached is a document I prepared for Michael when he met you and Brian. It is what we currently have in terms of a briefing paper. But, as the Region has not decided on a course of action, this is still for very limited distribution. [attachment "Pebble ETPA CWA Section 404 Hot Issue Final.doc" deleted by Christopher Hunter, [REDACTED]]

Phil

Phillip North  
Environmental Protection Agency  
Kenai River Center



"To protect your rivers, protect your mountains."

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Draft-Deliberative

May 18, 2010

**Pebble Copper Mine, Proposed near Bristol Bay, Alaska  
Overview for EPA HQ**

**Background:**

The Pebble copper deposit, is among the four largest copper deposits on earth, and is located in a remote and pristine location in the Bristol Bay watershed in Southwest Alaska. The deposit is proposed to be mined by the Pebble Limited Partnership, composed of North Dynasty Minerals of Vancouver, British Columbia and Anglo-American Mining of London, England. The mine would extract copper, gold, and molybdenum ore, span two watersheds (Nushagak and Kvichak) and would require the construction of a mining pit, several tailings piles, construction of 84-100 miles of pipelines and roads, and a port on Cook Inlet. Current estimates anticipate a pit of 6 cubic miles in size, and the generation of 5 to 10 billion tons of waste rock. The mine is proposed to be sited on Alaskan State lands, which the company holds mineral rights. Proposed roads and pipelines would cross Alaskan Native allotments and corporate lands.

Nushagak and Kvichak rivers produce approximately 10% of the Alaska Pacific salmon catch and approximately 4% of the world's Pacific salmon. In North America, Bristol Bay is the only major watershed that maintains historic levels of wild salmon production. Bristol Bayook Inlet, where the port is proposed, is home to several Federally endangered species, including Humpback whale, Steller's Sea Lion, Beluga Whale, and sea otter, some many of which are dependant on Bristol Bay salmon.

The human population of Bristol Bay is approximately 70% Yupik (Alaskan Native), and at least 15 Yupik Alaska native villages, are dependant on subsistence resources, are located on the Nushagak and Kvichak Rivers, downstream of the proposed mine site. Several more villages are dependent on both subsistence and ~~or~~ commercial fishing for Pacific salmon around Bristol Bay. Annual subsistence consumption of salmon in the area is estimated at 286 lbs per person, and the subsistence -value of salmon from the Bristol Bay rivers to the local economy ranges from \$104-~~14379~~ million annually. Commercial fishing is worth another \$119 million annually.

**Comment [p1]:** The pit is 2 miles by 3 miles on the surface and 1700 to 5000 feet deep, though the deep part of the deposit will probably get deeper as they explore more. Some of the mine is open pit and some block caving so it is difficult to estimate the volume of the final pit. I changed the presentation to explain this. I suggest just saying 2 X 3 X 1700 to 5000 feet deep.

**Comment [p2]:** Other watersheds, such as Prince William Sound produce similar numbers of salmon but they are hatchery fish with all the ecological and evolutionary implications suggested.

**Comment [p3]:** Steller's sea lion is dependent on Bristol Bay salmon. The populations of Beluga dependent on Bristol Bay salmon are not ESA listed. Northern Fur Seal is also dependent on Bristol Bay salmon but is not yet listed.

**Environmental Impacts:**

30-50% of the proposed mine footprint will be in wetlands and streams; potentially up to 10,000 acres of wetland impacts and 68 miles of stream impacts subject to CWA 404. Port construction may impacts up to another 100 acres of marine intertidal habitat. Pipelines and roads will cross 14 or more salmon-bearing streams, with hydrological impacts and potential impediments to fish passage. Waste rock will be placed in several tailing piles, covering 10-20 square miles, between 150-300 feet deep. Available data shows the waste rock has the potential for acid generation, which increases the long term risk of chronic acid discharge and catastrophic spill well after mine close-out. These direct and secondary impacts likely would have an adverse impact on the health of Bristol Bay salmon populations, which is one of the primary food sources in the local ecosystem for both animal and human populations.

**Status & Timeline:**

No permits have been applied for yet, but the company is anticipated to begin Federal and State permit application in 2011. It is anticipated that CWA 404 application would trigger the need for an EIS, to be conducted by the Corps of Engineers. Following completion of the EIS, a permit could be issued, and work initiated by 2013-2014.

EPA Region 10 has been involved in the preliminary planning for the proposed mine for several years. Recently, Region 10 has received an increasing number of requests for meetings by NGO and Tribal representations in order to express their opposition to the proposed mine. The

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DISCLOSURE AUTHORIZED ONLY TO CONGRESS FOR OVERSIGHT PURPOSES

*Draft-Deliberative*

*May 18, 2010*

Regional Administrator is scheduled to meet with Trout Unlimited and representatives from 6 Tribal Villages on June 3. It is anticipated that this group will request a meeting with EPA Administrator Jackson and that EPA exercise its 404(c) authority to prohibit discharges associated with the construction of the mine.

EPA-PNL-3662

"William Percy"

To Phil North

cc "Daniel Schindler"

01/04/2010 03:34 PM

bcc

Subject Re: Bristol Bay salmon role in North Pacific

----- Original Message -----

From [REDACTED]  
To: [REDACTED]  
Cc: "Kerim Aydin" [REDACTED]; [REDACTED]  
Sent: Thursday, December 31, 2009 1:07 PM  
Subject: Re: Bristol Bay salmon role in North Pacific

> Hi Phil,

>

> I suspect that at the scale of fish biomass in the North Pacific, or even  
> Bering and Gulf of AK, that this number will end up being tiny. The person  
> to get in touch with to put your estimate in perspective is Kerim Aydin at  
> the Alaska Fisheries Science Center. His group has developed a bunch of  
> Ecosim models for these ecosystems so they should be able to tell you who  
> the main predators for salmon smolts are, and how much of their diets are  
> smolts. Sarah Gachias also works with this group and certainly has the  
> answer as well.

>

> Cheers and good luck - all data to show that the Pebble Mine is an  
> environmental (and social) mistake are needed!  
> Daniel

>

>

> -----

> From [REDACTED]  
> To: [REDACTED]; [REDACTED]  
> Sent: Thursday, December 31, 2009 9:34 AM  
> Subject: Fw: Bristol Bay salmon role in North Pacific

>

>

>>

>> Bill and Daniel,  
>> As you can see in the message string below Bob Naiman gave me your  
>> names. I am trying to describe the likely consequences of various  
>> scenarios of impact should the Pebble Mine be developed in the Bristol  
>> Bay watershed. As described below, based on ADFG data and assumptions I  
>> have estimated that the Nushagak and Kvichak river systems produced  
>> about 1.6 billion smolts from the 2008 salmon run. About 1.57 billion  
>> of these fish will not return and so are forage for something in the  
>> North Pacific and Bering Sea. But I have no sense of the significance  
>> of that number of fish in the ocean ecosystem. I am trying to answer  
>> the question "If there was a substantial loss from the out-migration of  
>> Nushagak and Kvichak salmon what would be the effect on the North  
>> Pacific and Bering Sea ecosystem(s)?"

>>

>> My background is in fresh water systems. Can you direct me to any  
>> literature that might help answer the question or can you help me answer  
>> this question?





**A JOINT LETTER**

**From**

**Six Federally-recognized Tribes in Southwest Alaska:  
Nondalton Tribal Council, Koliganik Village Council,  
New Stuyahok Traditional Council, Ekwok Village Council  
Curyung Tribal Council, Levelock Village Council**

\_\_\_\_\_, 2010

Lisa P. Jackson, Administrator  
U.S. Environmental Protection Agency, Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Dennis J. McLerran, Regional Administrator  
U.S. Environmental Protection Agency, Region 10  
Regional Administrator's Office, RA-140  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

Re: Six federally-recognized tribes request EPA to initiate a public process under Section 404(c) of the Clean Water Act, to protect waters, wetlands, fish, wildlife, fisheries, subsistence and public uses in the Kvichak and Nushagak drainages and Bristol Bay of Southwest Alaska from a potential Pebble mine.

Dear Ms. Jackson and Mr. McLerran:

Our six federally recognized tribes, all from the Bristol Bay drainages of southwest Alaska, have government-to-government relationships with the United States. Our tribes are represented by the Nondalton Tribal Council, Koliganek Village Council, New Stuyahok Traditional Council, Ekwok Village Council, Curyung Tribal Council, and Levelock Village Council.

Section 404(c) of the Clean Water Act authorizes EPA to prohibit or restrict the discharge of dredge or fill material, including mine wastes, at defined sites in waters of the United States, including wetlands, whenever EPA determines, after notice and opportunity for hearing, that the use of such sites for disposal would have unacceptable adverse impacts on fisheries, wildlife, water supplies or recreation. EPA may do so *prior* to any ~~mining company's~~ application for permits to discharge such material. 40 CFR 231.1(a).

We request that EPA initiate a 404(c) public process to identify wetlands and waters in the Kvichak and Nushagak river drainages of southwest Alaska where discharges associated with potential large scale metallic sulfide mining at the Pebble deposit could be prohibited or restricted due to such unacceptable adverse effects. The deposit straddles a divide between these two drainages.

We are addressing this to both of you because: (1) 40 CFR 231.3(a) provides that a regional administrator should make the decision of whether to initiate a 404(c) public process; (2) in this instance, initiating a 404(c) process effectuates three of EPA's national priorities,<sup>1</sup> and three of EPA's regional priorities;<sup>2</sup> (3) initiating a 404(c) process promotes EPA's goal that decisions be based on science, law, transparency, and stronger EPA oversight;<sup>3</sup> and (4) doing so is consistent with EPA's national priority of increased attention to Environmental Justice and oversight of mineral processing.<sup>4</sup> Furthermore, EPA's on-going 404(c) process with respect to the Spruce No. 1 mine in West Virginia indicates that EPA prefers to be proactive, *i.e.*, "to address environmental concerns effectively *prior* to permit issuance."<sup>5</sup>

We make this request, *i.e.*, that EPA initiate a 404(c) process, for the following reasons.

- 1. The cultural and ecological importance of the Kvichak and Nushagak river drainages and the magnitude of a potential Pebble mine indicate that any 404(c) process should be broad at the outset.**

Pursuant to 40 CFR 231.3(a), the Regional Administrator's *initial* decision of whether to commence a 404(c) process turns on whether there is "*reason to believe*" that "an 'unacceptable adverse effect' *could* result" from the use of an area; in this instance, for disposal of mine wastes and other discharges. (Italics added). This initial decision is to be based upon "evaluating the information available." We assume that EPA staff has access to EPA's own relevant materials. Therefore, our counsel have prepared an abstracted list of other potentially relevant information, from other government agencies, the mining claimants, academic or professional publications, professional papers, and presidential documents applicable to tribal relations and environmental

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<sup>1</sup> These include: (1) protecting America's waters; (2) expanding the public conversation on environmentalism and working for environmental justice; and (3) forging strong partnerships between EPA, tribes and states. See EPA's seven national priorities at <http://blog.epa.gov/administrator/2010/01/12/seven-priorities-for-epas-future/#more-636> (last visited Jan. 25, 2010).

<sup>2</sup> These include: (1) working with Tribal Governments to protect and restore the natural resources on which tribal communities rely for their physical, cultural and economic well-being; (2) protecting and restoring watersheds; and (3) promoting sustainable practices and strategic partnerships, including with tribal governments. See EPA's six regional priorities at <http://yosemite.epa.gov/R10/EXTAFF.NSF/Reports/2007-2011+Region+10+Strategy> (last visited Feb. 12, 2010), and EPA's Region 10 Strategy for Enhancing Tribal Environments at <http://yosemite.epa.gov/r10/EXTAFF.NSF/Reports/07-11+Tribal> (last visited Feb 12, 2010).

<sup>3</sup> *Id.* Pebble mine also raises issues that may require the assistance of EPA staff in other offices.

<sup>4</sup> EPA's national priorities for enforcement and compliance for FY 2008 – 2010 and FY 2011 – 2013 (proposed) are at <http://www.epa.gov/oecaerth/data/planning/priorities/index.html#new>.

<sup>5</sup> See EPA, Spruce No. 1 Mine 404(c) Questions & Answers for Web Posting, Oct. 16, 2009 (italics added), [http://www.epa.gov/owow/wetlands/pdf/spruce\\_1\\_Oct\\_16\\_2009\\_q\\_and\\_a.pdf](http://www.epa.gov/owow/wetlands/pdf/spruce_1_Oct_16_2009_q_and_a.pdf) (visited Jan. 26, 2010). EPA took this position when it invoked the 404(c) public process after years of working with the applicant and other agencies. Spruce No. 1 is the largest proposed mountaintop removal operation in Appalachia, would clear 2200 acres, and fill seven miles of streams. By contrast, just the open pit portion of a Pebble mine (per applications filed in 2006 and subsequently suspended) would be about two square miles (over 46,000 acres).

justice. We assume that none of these materials would be overlooked and are simply call them to your attention.

The Kvichak River drainage historically produces more sockeye salmon than any other drainage in the world. Sockeye salmon drive Alaska's most commercially valuable salmon fisheries in Bristol Bay. In the Bristol Bay drainages, the Nushagak River drainage, also ~~producees~~ produces vast numbers of sockeye, and produces the largest runs of other salmon species, including chinook, coho, chum and pink salmon. Both drainages are critical to the wild commercial salmon fisheries, subsistence fisheries, internationally famous sport fisheries, and abundant wildlife that serve many uses and the ecosystem of the North Pacific Ocean. The drainages provide water supplies to numerous villages and communities, many of which are substantially populated by Alaska Native people.<sup>6</sup>

The Pebble Limited Partnership (PLP) seeks to develop the mining claims and divides them into "Pebble West" and "Pebble East." The former may be susceptible to an open pit mine, and the latter (a more recent discovery) may be susceptible to an underground mine.<sup>7</sup> In 2006, Northern Dynasty Mines, Inc. (NDM)<sup>8</sup> filed and supplemented nine applications with the Alaska Department of Natural Resources (ADNR), and then requested ADNR to suspend them. ADNR did so. Four applications sought to appropriate water. Five sought permits to construct tailings impoundment dams.<sup>9</sup> These nine applications were based *solely* on the Pebble West deposit. The surface area of the water of just two tailings impoundments proposed at that time would have covered over ten square miles (6400 acres). "Beaches" of waste would have surrounded the impoundments created by five dams or embankments up to 740 feet high and several miles long.

The 2006 applications for Pebble West showed that NDM had considered about a dozen potential waste disposal sites, all or many of which appeared to involve wetlands under EPA's jurisdiction. The proposed open pit mine would have involved about 16.5 miles of 54-inch diameter pipelines to move and manage tailings, and over two hundred miles of 15-inch diameter pipelines to transport a slurry concentrate for dewatering and ocean shipment from Cook Inlet,

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<sup>6</sup> Nondalton is closer to a potential Pebble mine than any other community. Dillingham's Curyung Tribal Council represents the largest tribe in the Bristol Bay drainages of about 2400 members. Koliganik, New Stuyahok, Ekwook and Levelock are downstream of Pebble.

<sup>7</sup> EPA routinely recognizes that mine voids, from open pit and underground mines, are significant sources of acid mine drainage. We call to your attention P. Younger, "*Don't forget the voids: aquatic pollution from abandoned mines in Europe*," submitted at the Workshop on Mine and Quarry Waste – the Burden from the Past, held by the Dir. Gen. for the Envir. and Jt. Research Cen. for EU and EC nations, at Orta, Italy, 2002. The paper indicates that voids can vastly exceed waste depositories as sources of water pollution (*see* Table 1 therein, and discussion); *see* [http://viso.jrc.ec.europa.eu/pecomines\\_ext/events/workshop/ProceedingsOrtaWorkshop.pdf](http://viso.jrc.ec.europa.eu/pecomines_ext/events/workshop/ProceedingsOrtaWorkshop.pdf).

<sup>8</sup> We understand that NDM is the American subsidiary of Northern Dynasty Minerals Ltd., of which an affiliate is apparently a partner in PLP. See announcement of PLP partnership at [http://www.northerndynastyminerals.com/ndm/NewsReleases.asp?ReportID=336841&\\_Type=News-Releases&\\_Title=Northern-Dynasty-Anglo-American-Establish-5050-Partnership-To-Advance-Pebbl...](http://www.northerndynastyminerals.com/ndm/NewsReleases.asp?ReportID=336841&_Type=News-Releases&_Title=Northern-Dynasty-Anglo-American-Establish-5050-Partnership-To-Advance-Pebbl...)

<sup>9</sup> The applications comprise over 2000 pages. The attached appendix lists the website posting them. A law journal article (listed in the appendix) summarizes these applications.

and to return used slurry water to the mine facilities. After suspending the applications, PLP has concentrated on exploring Pebble East, which has resulted in more than doubling the amount of potential mine waste, *i.e.*, to about ten billion tons of waste. Hence, the questions of where, how and whether this vast volume of waste can be safely and permanently handled are major unresolved issues.

Because PLP has yet to finalize plans for a mine, and because associated facilities could also have various direct, indirect and cumulative adverse effects within the scope of 404(c), our tribes recommend that EPA consider a wide geographic area of the Kvichak and Nushagak drainages for 404(c) purposes. Our reasons include: (1) the large scale of a potential Pebble mine; (2) uncertainty over how mine wastes might be handled; (3) the vast quantity of potential mine waste (ten billion tons); (4) the acid generating potential of the host rock, voids, wastes, and dust; (5) the immensity of the task of containing mine contaminants forever, including acid mine drainage; (6) the importance of commercial salmon fisheries at issue; (7) the potential impact on subsistence and recreation, including from increased population and regardless of whether contaminants can be forever contained;<sup>10</sup> and (8) the potential that proposed pipelines could move the wastes to many other locations.

Commented [PAN1]: Is there room here for ecological impacts not directly related to commercial or subsistence fisheries?

**2. The magnitude of the issues and PLP’s recent decision to terminate its Technical Working Groups justify an EPA decision to commence a 404(c) process at this time.**

PLP recently terminated its Technical Working Groups (TWGs), approximately ten in number. They were composed of federal and state officials who, in an advisory capacity, had sought for several years to review and comment upon PLP’s baseline study plans before PLP implemented them, and to review results, in order to advise PLP as it progressed toward an environmental impact statement (EIS). During the life of these working groups, information suggests that PLP was not as forthcoming as agency officials had hoped.

PLP’s decision to end the TWGs strongly suggests that federal, state and tribal entities may be more likely to face greater informational deficits as they head into an EIS process, than might have been the situation otherwise. Commencing a 404(c) process may help to remedy some of these information deficits before PLP finalizes its design, submits permit applications, and triggers an EIS process.

Because of the magnitude of the issues, all parties (including PLP, federal, state, local and tribal entities, and the public) will benefit from EPA initiating a 404(c) process *before*, and not *after*, PLP eventually submits its anticipated permit applications for a proposed Pebble mine, and *before* an EIS process commences.<sup>11</sup> Moreover, because the potential to invoke a 404(c) public process exists, postponing an initial decision to do so until applications are filed can serve no affected party.<sup>12</sup>

<sup>10</sup> See Briefing Paper (Pt. III) attached to letter to Rep. Edgmon (enclosed), asserting that state and federal subsistence statutes will not protect subsistence in the context of a potential Pebble mine, even if permits can protect habitat.

<sup>11</sup> PLP recently postponed its applications from 2010 until 2011, and may delay further.

<sup>12</sup> Furthermore, a 404(c) process appears to be less costly than an EIS. Facing issues proactively could reduce all costs of agencies, PLP and the public prior to and during an EIS.

**3. Infirmities in the State's 2005 Bristol Bay Area Plan provide ample reason to initiate a 404(c) process at this time.**

We realize that our request asks you to decide whether to commence a 404(c) process before an EIS process has begun, or has run its course. We are enclosing copies of two other letters that may assist your decision.<sup>13</sup> For different purposes, they address the methods that ADNR employed in preparing its 2005 Bristol Bay Area Plan (2005 BBAP). It classifies state land into land classification categories, including at the Pebble site and the potential associated facilities, and establishes guidelines and statements of management intent.

The methods used by the 2005 BBAP to classify state land, and establish guidelines and statements of intent, provide ample reason for EPA to initiate a 404(c) process before an EIS process commences. For example, the 2005 BBAP:

1. uses primarily *marine* criteria, such as whether land is a walrus haulout, to determine whether *inland uplands*, such as those at Pebble, qualify for classification as fish and game habitat (*see* 2005 BBAP, p. 2-9; a link to the 2005 BBAP is in the Appendix);
2. *omits moose and caribou* from the process of designating and classifying land as habitat (*see id.*);
3. has *no land use classification category for subsistence hunting and fishing*, while ADNR has a public recreation category that includes land used for *sport hunting and fishing* (*see* ADNR's land use planning regulations at 11 AAC 55.050 – .230 and 2005 BBAP); and
4. defines recreation by *excluding* sport hunting and fishing for purposes of preparing the 2005 BBAP (*see* 2005 BBAP, p. A-11).<sup>14</sup>

As explained in the letter to the U.S. Army Corps of Engineers, Alaska District, and the EPA Alaska Operations Office, as long as the 2005 BBAP is in effect, every alternative in an EIS that would permit a Pebble mine will rest upon the methods that ADNR used in adopting the current land classifications, guidelines, and statements of intent. Because NEPA regulations at

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<sup>13</sup> One letter, from our counsel to Col. Reinhard W. Koenig, of the U. S. Army Corps of Engineers, Alaska District, and Mr. John Pavitt of EPA's Alaska Operations Office, seeks discussions of whether the tribes may be treated as cooperating agencies on any EIS prepared for a proposed Pebble mine. The other, from the six tribes, Alaska Independent Fishermen's Marketing Association (AIFMA), and Trout Unlimited (TU) to State Rep. Edgmon, urges the Fisheries Committee of the Alaska House of Representatives to consider legislation to establish a state fish and game refuge or critical habitat area that would include most state land in the Kvichak and Nushagak drainages, including land at the Pebble site.

<sup>14</sup> In *Nondalton Tribal Council, et al., v. ADNR.*, No. 3AN-09-46 CI (3<sup>rd</sup> Jud. Dist., Ak.), these six tribes, AIFMA and TU allege that ADNR's 2005 BBAP uses many unlawful methods to classify state land, and establish guidelines and management intent, including where Pebble and its facilities might be located. The litigation is undecided. See also enclosed letter to Rep. Edgmon, and briefing paper (Part I) regarding the 2005 BBAP. With respect to ADNR's lack of a subsistence category, ADNR claims that its habitat classifications accommodate subsistence, even though the 2005 BBAP reduces the upland acreage classified or co-classified as habitat by 90 percent, from 12 million acres to 768,000 acres, when compared to the former 1984 BBAP.

40 CFR § 1506.2(d)<sup>15</sup> provide that an EIS must analyze and address any applicable state land use plan, this requirement will put federal agencies in the position of having to explain in public, and on the record, why the federal agencies should evaluate federal permit applications to develop state land where the State's land classifications, guidelines and statements of intent rest upon such questionable methods, be they lawful or not. To ignore them would be facially contrary to 40 CFR § 1506.2(d), and would beg the question of what the classifications, guidelines and statements of intent should be applicable, in the absence of the 2005 BBAP and its methods. Presently, no one can answer that question.

Because no one can do so, and regardless of whether such methods are lawful under *state* law (and we believe the present ones are *not*), we doubt that federal agencies can engage in the legally required, *reasoned* decision-making necessary to approve federal permits so long as the 2005 BBAP is in place.<sup>16</sup> This leaves little room for any decision other than to commence a 404(c) *before*, and not *after*, PLP submits its permit applications, and *before* an EIS process commences. To do otherwise will compel EPA, the Corps and other agencies, in the context of NEPA and an EIS process, either to defend the State's methods used in the 2005 BBAP (which would be untenable), or to ignore them, which would be contrary to 40 CFR § 1506.2(d).

### CONCLUSION

For three reasons, this situation seems straightforward. First, the importance of the Kvichak and Nushagak river drainages and the magnitude of the issues raised by a potential Pebble mine warrant an EPA decision now, to commence a 404(c) public process. Second, all of the concerns raised to date, coupled with the recent decision of the Pebble Limited Partnership to terminate its Technical Working Groups, justify commencing a 404(c) process at this time. Third, the infirmities of ADNR's 2005 Bristol Bay Area Plan provide ample reason to commence a 404(c) process at this time. These infirmities leave little room for any decision other than to do so *before*, and not *after*, PLP submits its permit applications, and *before* an EIS process commences, because during an EIS process no governmental agency could lawfully defend or ignore the 2005 Bristol Bay Area Plan.

Thank you for your attention to this matter. We look forward to hearing from you. We hope to work in a public process under Section 404(c) of the Clean Water Act with the U. S. Environmental Protection Agency.

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<sup>15</sup> 40 CFR § 1506.2(d) provides that to integrate an EIS into state planning processes, an EIS shall discuss any inconsistency of a proposed action with any approved state land use plan; and where inconsistency exists, the EIS should describe the extent to which the federal agency would reconcile its proposed action with the plan. In other words, an EIS on any potential Pebble mine will have to consider and analyze the applicable state land use plan.

<sup>16</sup> The 2005 BBAP appears to be fatal, from a legal standpoint, as the basis for an EIS that would support the issuance of permits for Pebble. *See* Briefing Paper, Pt. II, attached to letter to Rep. Edgmon.

Sincerely yours,

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Jack Hobson, President  
Nondalton Tribal Council  
P.O. Box 49, Nondalton, AK 99640

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Herman Nelson, Sr., President  
Koliganek Village Council  
P.O. Box 5057, Koliganik, AK 99576

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Moxie Andrew, President  
New Stuyahok Traditional Council  
P.O. Box 49, New Stuyahok, Alaska 99636

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Luki Akelkok, President  
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P.O. Box 70, Levelock, AK 99625

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Thomas E. Meacham, Attorney  
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Anchorage, Alaska 99507-5924  
Co-Counsel

cc: Col. Reinhard W. Koenig, U. S. Army Corps of Engineers, Alaska District  
Kim Elton, Senior Advisor for Alaska Affairs, U. S. Department of the Interior

#### APPENDIX

##### An Abstracted List of Potentially Relevant Information

(This list assumes that EPA has access to its own agency documents, and therefore this list does not include such documents.)

Alaska Department of Fish and Game, *The Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* and its associated *Atlas*, available at <http://www.sf.adfg.state.ak.us/SARR/AWC/index.cfm/FA/main.overview> (last visited December 30, 2009).

*The Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* (“Anadromous Waters Catalogue”) and its associated *Atlas* of maps currently contain about 16,000 streams, rivers or lakes in Alaska which have been specified as being important for the spawning, rearing or migration of anadromous fish. Based upon thorough surveys of a few drainages, it is believed that this number represents less than 50% of the streams, rivers and lakes actually

used by anadromous species. It is estimated that at least an additional 20,000 or more anadromous water bodies have not been identified or specified under AS 16.05.871(a), a state permitting statute.

Alaska Department of Natural Resources, Alaska Department of Fish and Game, Alaska Department Environmental Conservation, *Bristol Bay Area Plan for State Lands* (1984), available at <http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm> (last visited December 30, 2009).

Area plans generally have an administrative life of about twenty years, are prepared by the Alaska Department of Natural Resources, and apply to state-owned and state-selected lands. By state statute, area plans must (1) be based on an inventory of uses and resources; (2) designate primary uses of units of state land; these designations convert to classifications of the land; and (3) adopt general and unit specific guidelines and statements of intent to guide management decisions. The Bristol Bay Area Plan of 1984, prepared and adopted by ADNR, ADF&G, and ADEC, contains a set of five habitat maps, and three maps of subsistence use areas for 31 communities and villages in the Bristol Bay drainages. The 1984 Plan remains useful because the later-prepared 2005 Bristol Bay Area Plan lacks comparable maps and comparable cartographic identification of essential and important habitats. The maps from the 1984 Plan are not posted on ADNR's web pages, but may be obtained separately either from ADNR or from counsel to the tribes. BLM's Resource Management Plan has identical or similar maps of subsistence use areas.

Alaska Department of Natural Resources, *Bristol Bay Area Plan for State Lands* (2005), available at <http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm> (last visited December 30, 2009).

See above abstract of the 1984 Bristol Bay Area Plan. The Bristol Bay Area Plan of 2005, prepared and adopted by ADNR, is currently the subject of litigation in *Nondalton Tribal Council, et al., v. State, Department of Natural Resources*, 3DI-09-046 CI, wherein these six Tribes, AIFMA Cooperative (a cooperative association of commercial fishers), and Trout Unlimited seek to have the 2005 Plan declared unlawful.

Directorate General for the Environment and the Joint Research Centre, Workshop on Mine and Quarry Waste – the Burden from the Past ([http://viso.jrc.ec.europa.eu/pecomines\\_ext/events/workshop/ProceedingsOrtaWorkshop.pdf](http://viso.jrc.ec.europa.eu/pecomines_ext/events/workshop/ProceedingsOrtaWorkshop.pdf), last visited Jan. 25, 2010)

This is a collection of papers submitted at the conference organized by the for European Union and European Community nations, held at Orta, Italy, in 2002. Many seem useful. In particular, the paper by P. Younger, “*Don't forget the voids: aquatic pollution from abandoned mines in Europe*,” indicates that mine voids can vastly exceed mine waste depositories as sources of water pollution (see Table 1 therein, and discussion).

Duffield et al., Economics of Wild Salmon Watersheds: Bristol Bay, Alaska 15 at [http://www.housemajority.org/coms/hfsh/trout\\_unlimited\\_report.pdf](http://www.housemajority.org/coms/hfsh/trout_unlimited_report.pdf) (Feb. 2007) (last visited Jan. 6, 2010).

This report provides estimates of the economic values associated with the sustainable use of wild salmon ecosystem resources, primarily fisheries and wildlife, of the major watersheds of the Bristol Bay, Alaska region. Both regional economic significance and social benefit-cost accounting frameworks are utilized. This study reviews and summarizes existing economic research on the key economic sectors (e.g., commercial fishery, subsistence fishery, recreation, and governmental expenditure and values) in this area. The study also reports recent findings based on original survey data on expenditures, net benefits, attitudes, and motivations of recreational anglers.

William J. Hauser, d/b/a “Fish Talk, Consulting,” Potential Impacts of the Proposed Pebble Mine on Fish Habitat and Fishery Resources of Bristol Bay (2007).

This paper appears to have useful information about salmon production proximate to the proposed road/access route to Pebble, including the hydrological characteristics of areas used by sockeye salmon for beach spawning in northwestern Iliamna Lake, which is immediately down-gradient from the proposed road/access route.

Northern Dynasty Mines, Inc. (NDM), Pebble Project: Applications for surface and ground water rights, and initial applications for certificates of approval to construct dams (2006), available at <http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/waterapp.htm> (last visited December 30, 2009).

Shortly after NDM filed these applications, NDM requested DNR to suspend processing them, and DNR agreed to do so. They contain information on the Pebble West portion of the ore body, proposed routes for road access, pipelines and power, and information relevant to the types of facilities envisioned and the magnitude of the project.

Office of the President, Executive Order 12898 (Feb. 11, 1994) re: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, available at [http://www.epa.gov/compliance/resources/policies/ej/exec\\_order\\_12898.pdf](http://www.epa.gov/compliance/resources/policies/ej/exec_order_12898.pdf) (last visited December 30, 2009).

Section 4-4 on subsistence consumption of fish and wildlife may bear upon EPA decision-making under Section 404(c).

Office of the President, Executive Order 13175 (Nov. 6, 2000) re: Consultation and Coordination with Indian Tribal Governments, available at <http://www.epa.gov/fedreg/eo/eo13175.htm> (last visited December 30, 2009). This executive order applies to federal-tribal relationships.

Office of the President, Memorandum for the Heads of Executive Departments and Agencies, re: Tribal Consultation (Nov. 5, 2009), available at <http://www.gpoaccess.gov/presdocs/2009/DCPD-200900887.pdf> (last visited December 30, 2009). This presidential memorandum supplements Executive Order 13175.

Parker, et al., “*Pebble Mine: Testing the Limits of Alaska’s Large Mine Permitting Process*,” Alaska Law Review, Vol. 25:1 (June 2008), available at [www.law.duke.edu/shell/cite.pl?25+Alaska+L.+Rev.+1+pdf](http://www.law.duke.edu/shell/cite.pl?25+Alaska+L.+Rev.+1+pdf) (last visited December 30, 2009).

This law journal article, by lawyers and biologists, examines the adequacy of the state’s large mine permitting process and finds it insufficient to deal with large metallic sulfide mines such as a Pebble mine.<sup>17</sup> The article contains over 170 footnotes, many with links to sources. Many of the non-legal sources may be useful to the Regional Administrator of EPA in making the initial determination of whether there is “reason to believe” that metallic sulfide mining in the area of Pebble “could result” in “unacceptable adverse effect,” and therefore whether to commence a 404(c) process. The citations cover: (1) academic and professional literature on impacts that dissolved copper may have on salmonids and other fish, including a discussion of additive and synergistic effects; (2) academic and professional literature on the role that genetic diversity plays in overall productivity of salmon stocks; (3) EPA documents on acid mine drainage; (4) documents from Pebble Limited Partnership or Northern Dynasty on the nature of the ore body, (5) documents from Northern Dynasty submitted as part of its 2006 applications for water rights and approval of dams, (6) a recent study by Dr. John Duffield (University of Montana) of the economic values and job production associated with wild salmon producing watersheds of the Bristol Bay drainages, and (7) other related materials. Some of the links to PLP and NDM materials are no longer active or have been replaced by more up-to-date sources on PLP’s webpages (see below).

Pebble Limited Partnership, various websites at <http://www.pebblepartnership.com/>.

State of Alaska, Alaska Statutes, Title 38, Chap. 38.04 (land use planning and classification) at <http://www.legis.state.ak.us/basis/folio.asp>, and ADNR regulations (land use planning and classification), 11 AAC 55.010 -- .280 at [http://www.legis.state.ak.us/basis/folioproxy.asp?url=http://www.jnu01.legis.state.ak.us/cgi-bin/folioisa.dll/aac/query=\[JUMP:'Title11Chap55'\]/doc/{@1}?firsthit](http://www.legis.state.ak.us/basis/folioproxy.asp?url=http://www.jnu01.legis.state.ak.us/cgi-bin/folioisa.dll/aac/query=[JUMP:'Title11Chap55']/doc/{@1}?firsthit)

Trasky & Associates, Analysis of the Potential Impacts of Copper Sulfide Mining on the Salmon Resources of the Nushagak and Kvichak Watersheds (2007).

This two-volume report may, or may not, be public at the present time. It was prepared for the Nature Conservancy in Alaska. Mr. Trasky is a retired Regional

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<sup>17</sup> The authors have represented or assisted clients or entities opposed to or concerned about a Pebble mine, and continue to do so.

Supervisor of the Alaska Department of Fish and Game, Habitat Division, Region III, which includes the Bristol Bay drainages.

US Department of the Interior, Bureau of Land Management, Subsistence Use Area Maps, Proposed Resource Management Plan (RMP) for BLM lands in the Bristol Bay drainages, and Final Environmental Impact Statement on the proposed RMP (December 2007), available at [http://www.blm.gov/ak/st/en/prog/planning/bay\\_rmp\\_eis\\_home\\_page/bay\\_feis\\_documents.html](http://www.blm.gov/ak/st/en/prog/planning/bay_rmp_eis_home_page/bay_feis_documents.html) (last visited Jan. 7, 2010).

The final EIS on BLM's proposed Resource Management Plan contains maps of subsistence use areas of many of the villages and communities in the Bristol Bay drainages. The internet links to the maps of subsistence use areas that appear to include significant amounts of the Kvichak and Nushagak drainages are:

Aleknagik:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.39744.File.dat/Map3-51\\_Aleknagik.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.39744.File.dat/Map3-51_Aleknagik.pdf) (last visited Jan. 7, 2010)

Dillingham:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.16048.File.dat/Map3-52\\_Dillingham.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.16048.File.dat/Map3-52_Dillingham.pdf) (last visited Jan. 7, 2010)

Ekwok:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.76842.File.dat/Map3-53\\_Ekwok.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.76842.File.dat/Map3-53_Ekwok.pdf) (last visited Jan. 7, 2010)

Igiugig

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.33049.File.dat/Map3-54\\_Igiugig.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.33049.File.dat/Map3-54_Igiugig.pdf) (last visited Jan. 7, 2010)

Iliamna:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.78607.File.dat/Map3-55\\_Iliamna.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.78607.File.dat/Map3-55_Iliamna.pdf) (last visited Jan. 7, 2010)

Kokhanok:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.64140.File.dat/Map3-57\\_Kokhanok.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.64140.File.dat/Map3-57_Kokhanok.pdf) (last visited Jan. 7, 2010)

Levelock:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.58501.File.dat/Map3-59\\_Levelock.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.58501.File.dat/Map3-59_Levelock.pdf) (last visited Jan. 7, 2010)

Koliganek:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.56441.File.dat/Map3-58\\_Koliganek.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.56441.File.dat/Map3-58_Koliganek.pdf) (last visited Jan. 7, 2010)

Manokotak:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.65865.File.dat/Map3-60\\_Manokotak.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.65865.File.dat/Map3-60_Manokotak.pdf) (last visited Jan. 7, 2010)

Nondalton:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.36771.File.dat/Map3-62\\_Nondalton.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.36771.File.dat/Map3-62_Nondalton.pdf) (last visited Jan. 7, 2010)

Pedro Bay:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.89854.File.dat/Map3-63\\_PedroBay.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.89854.File.dat/Map3-63_PedroBay.pdf) (last visited Jan. 7, 2010)

Platinum:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.4004.File.dat/Map3-64\\_Platinum.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.4004.File.dat/Map3-64_Platinum.pdf) (last visited Jan. 7, 2010)

Portage Creek:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.78039.File.dat/Map3-65\\_PortageCreek.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.78039.File.dat/Map3-65_PortageCreek.pdf) (last visited Jan. 7, 2010)

Port Alsworth:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.10100.File.dat/Map3-66\\_PortAlsworth.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.10100.File.dat/Map3-66_PortAlsworth.pdf) (last visited Jan. 7, 2010)

New Stuyahok:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.90357.File.dat/Map3-68\\_NewStuyahok.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.90357.File.dat/Map3-68_NewStuyahok.pdf) (last visited Jan. 7, 2010)

Togiak:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.42891.File.dat/Map3-69\\_Togiak.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.42891.File.dat/Map3-69_Togiak.pdf) (last visited Jan. 7, 2010)

Twin Hills:

[http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\\_rmp\\_eis\\_final.Par.66104.File.dat/Map3-70\\_TwinHills.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay_rmp_eis_final.Par.66104.File.dat/Map3-70_TwinHills.pdf) (last visited Jan. 7, 2010)

END

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EPA-PNL-848

Phil North [R10/USEPA/US](#)

08/23/2012 04:36 PM

To Glenn Suter, Kate Schofield

cc

bcc

Subject 2009 Presentation for R10 managers

Glenn and Kate,

I was looking through some old files and found this presentation that I prepared in 2009 as part of my effort to get R10 managers to consider a 404(c) for Bristol Bay. This was before we heard from the tribes. If you look toward that end you will see some tables that list risks. Starting on slide 110. I learned a lot more about PPT after creating this.



Pebble Presentation - Managers 11-12-09.pptx

Phillip North  
Environmental Protection Agency  
Kenai River Center  
[514 Funny River Road](#)  
[Soldotna, Alaska 99669](#)  
[\(907\) 714-2483](#)  
fax [260-5992](#)  
[north.phil@epa.gov](mailto:north.phil@epa.gov)

"To protect your rivers, protect your mountains."

# What you will see.

- Limits of 404(c)?
- The Mine
- The Place
- Concerns
- Conclusions
- Recommendations

# 404 C Authority

## Statute: Clean Water Act Section 404(c)

### Denial or restriction of use of defined areas as disposal sites

The Administrator is authorized to prohibit the specification of any defined area as a disposal site, . . . ., whenever he determines, . . . ., that the discharge of such materials into such area will have an unacceptable adverse effect on . . . ., shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreation.

# 404(c) Regulations

## 40 CFR 231.1 Purpose and scope.

“...The Administrator may also prohibit the specification of a site under section 404(c) with regard to any existing or potential disposal site **before a permit application has been submitted** to or approved by the Corps or a state.”

40 CFR 231.2(e) *Unacceptable adverse effect means* impact on an aquatic or wetland ecosystem which is likely to result in significant degradation of municipal water supplies (including surface or ground water) or *significant loss of or damage to fisheries*, shellfishing, or wildlife habitat or recreation areas.

## History of 404(c) Use by EPA

Year	Number of times used
1980	1
1983	1
1985	2
1987	2
1988	2
1989	2
2008	1
2009	2 in progress

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**It's all about  
salmon.**



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# The Mine

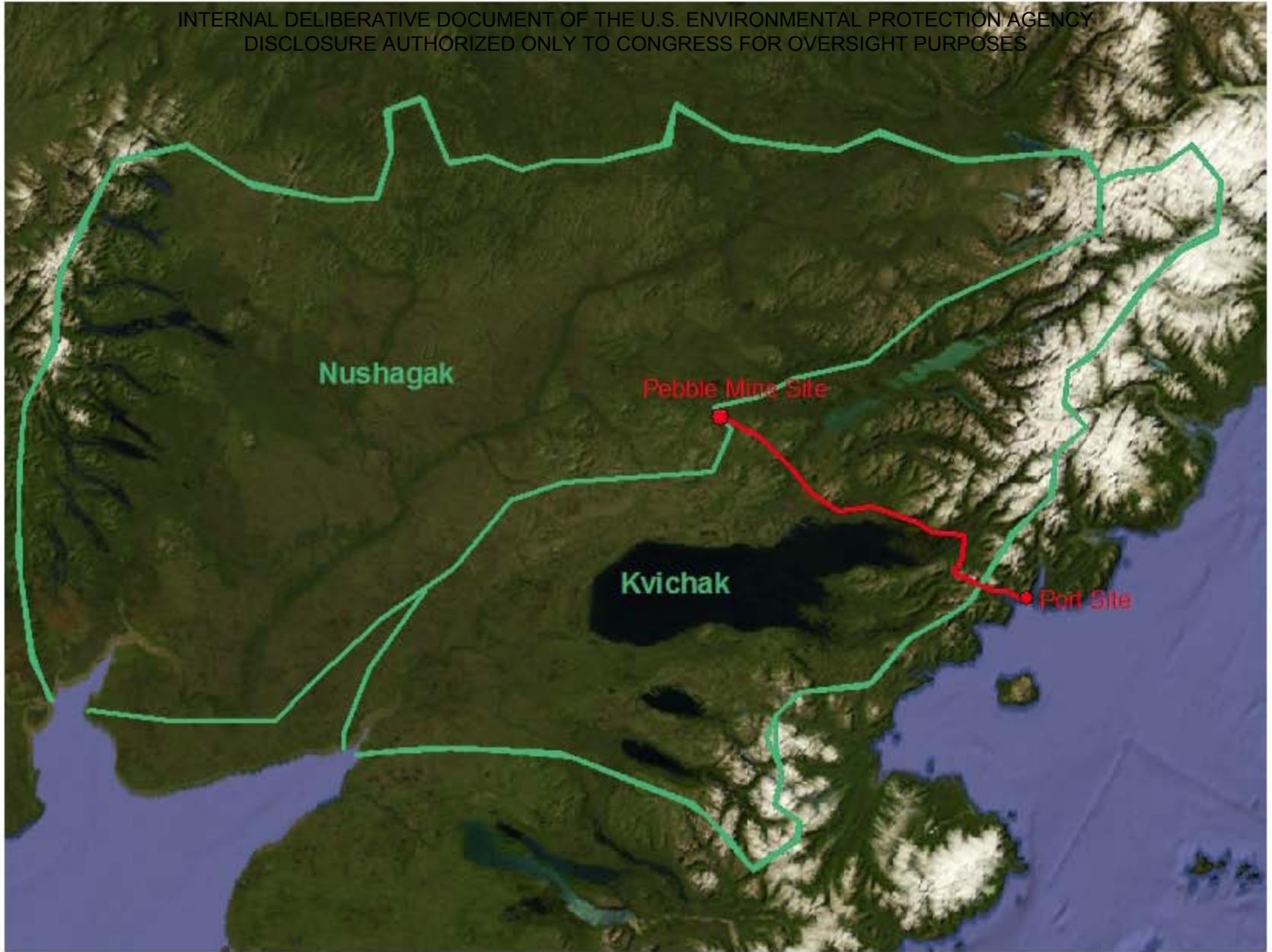
# Pebble Copper Mine Bristol Bay and Cook Inlet Alaska

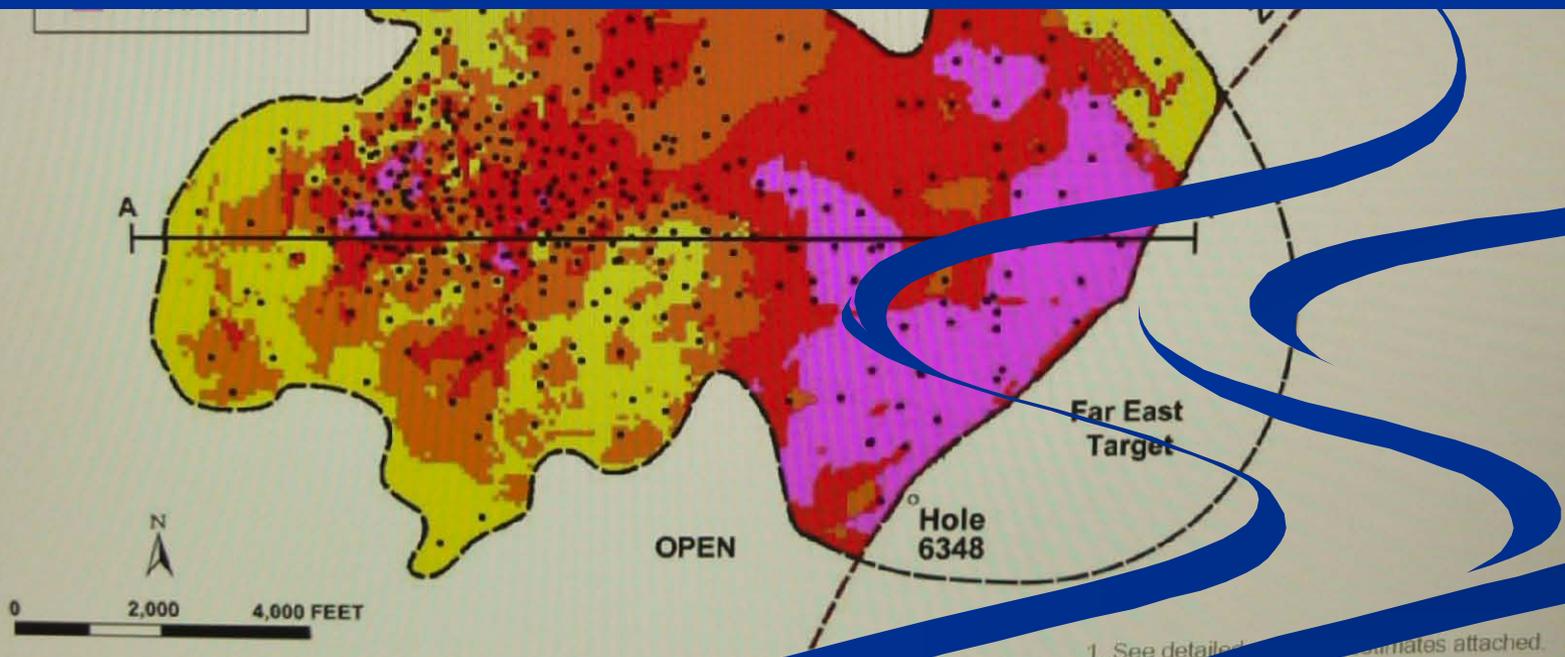


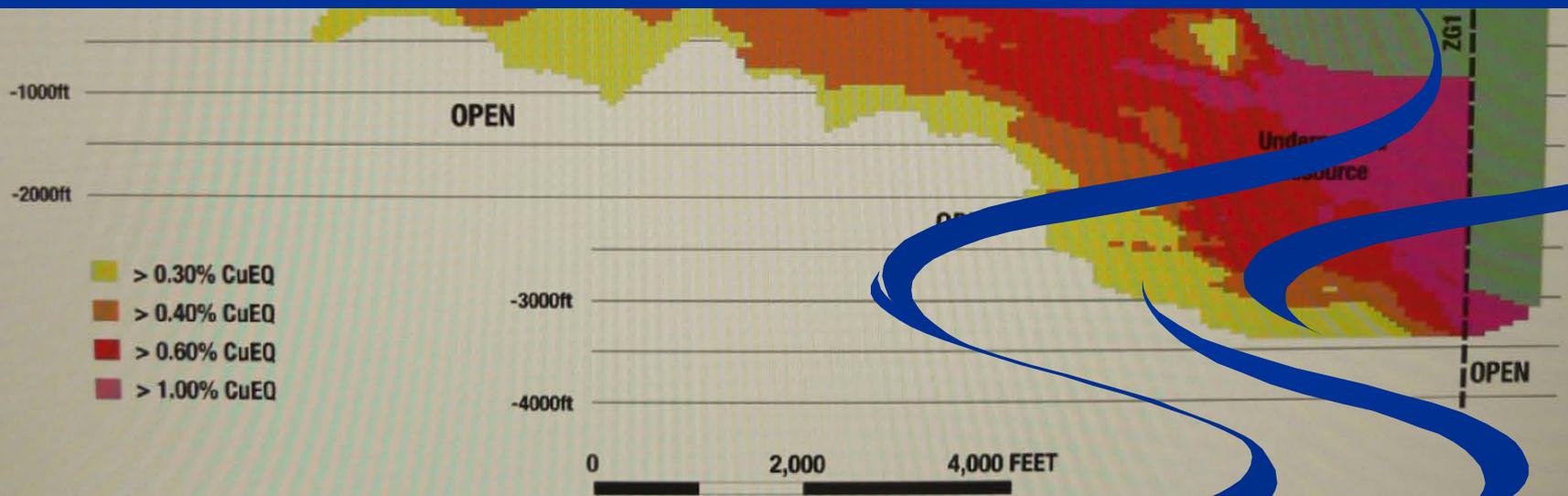
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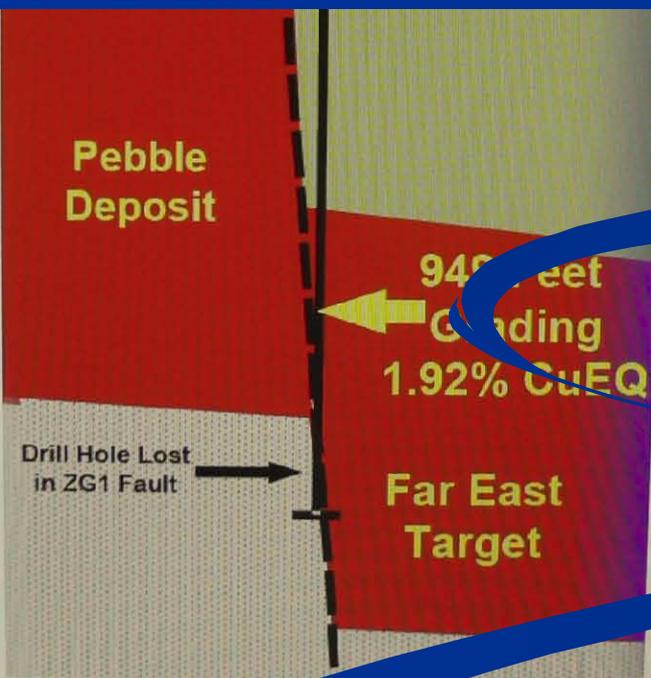


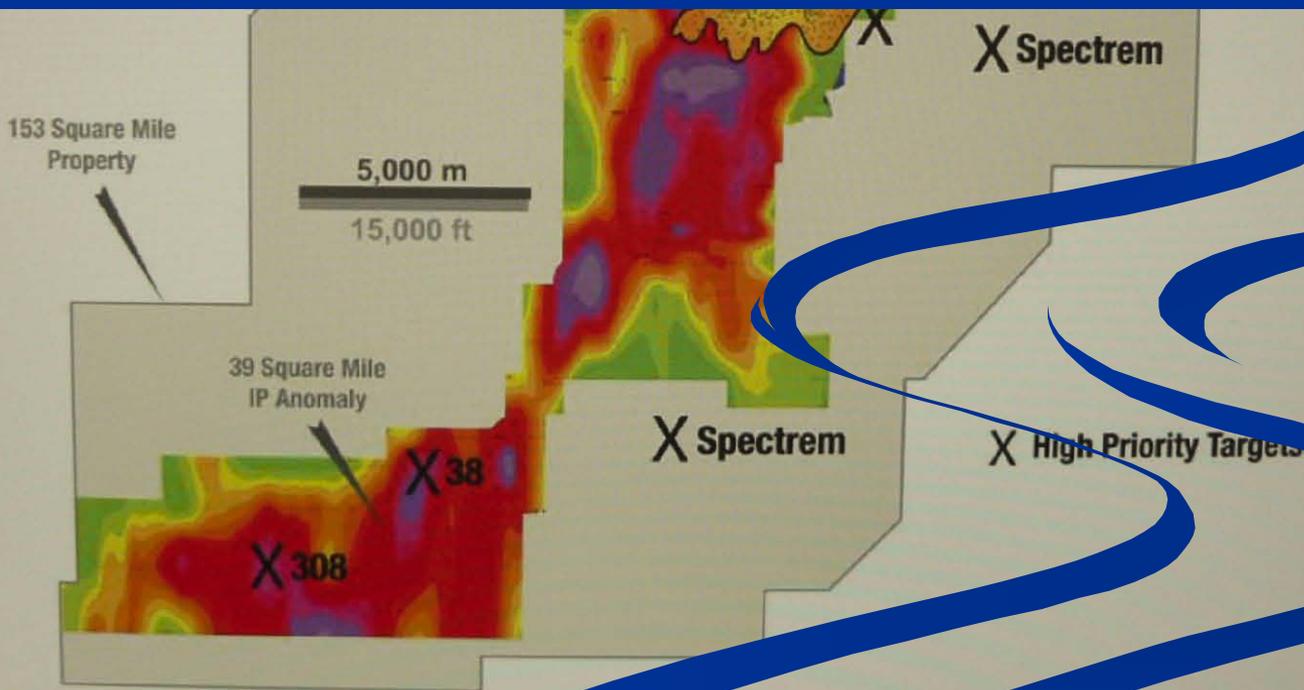
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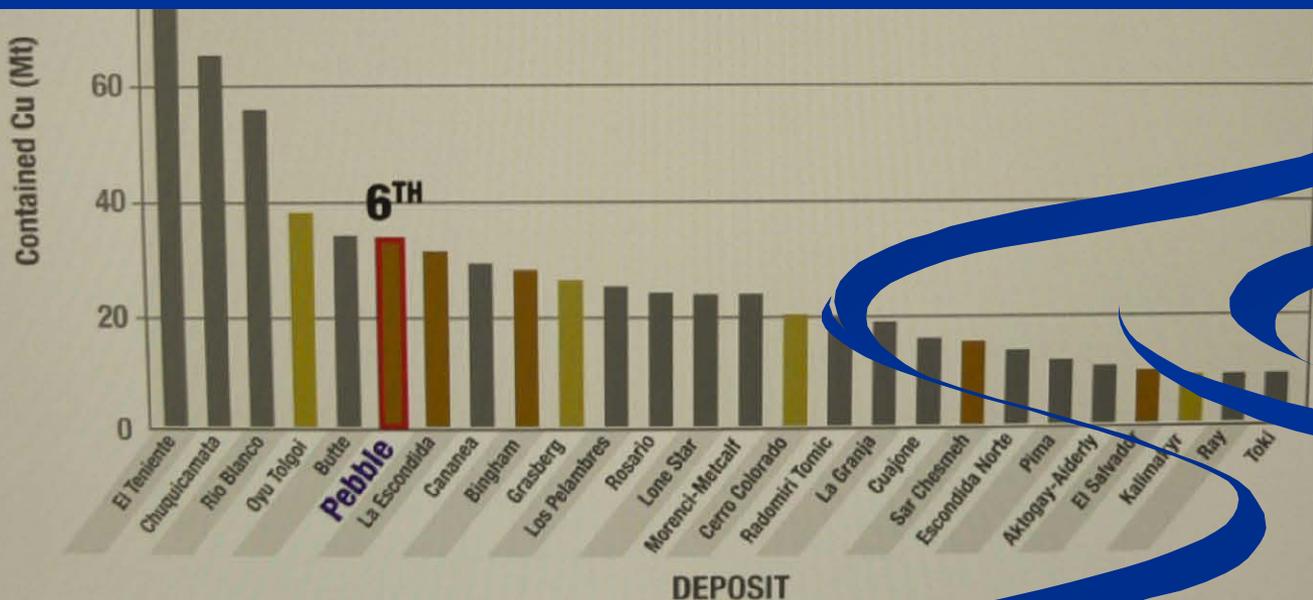












1. Source: After Economic Geology V100 No.5 August 2005. Giant Porphyry Deposits: Global Distribution and Tectonic Controls



1. Source: After Economic Geology V100 No.5 August 2005. Giant Porphyry Deposits: Occurrences, Distribution and Tectonic Control

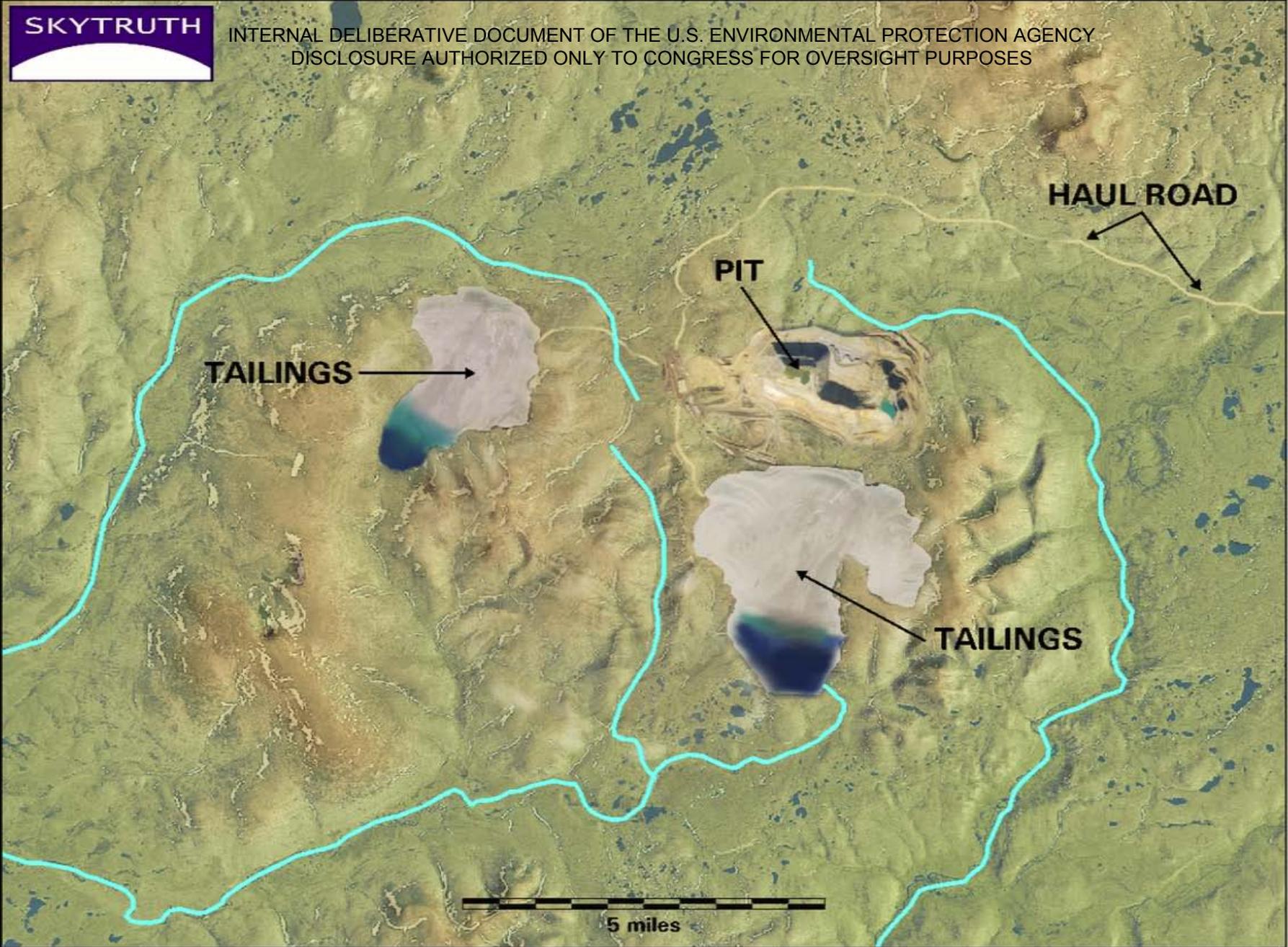
SKYTRUTH

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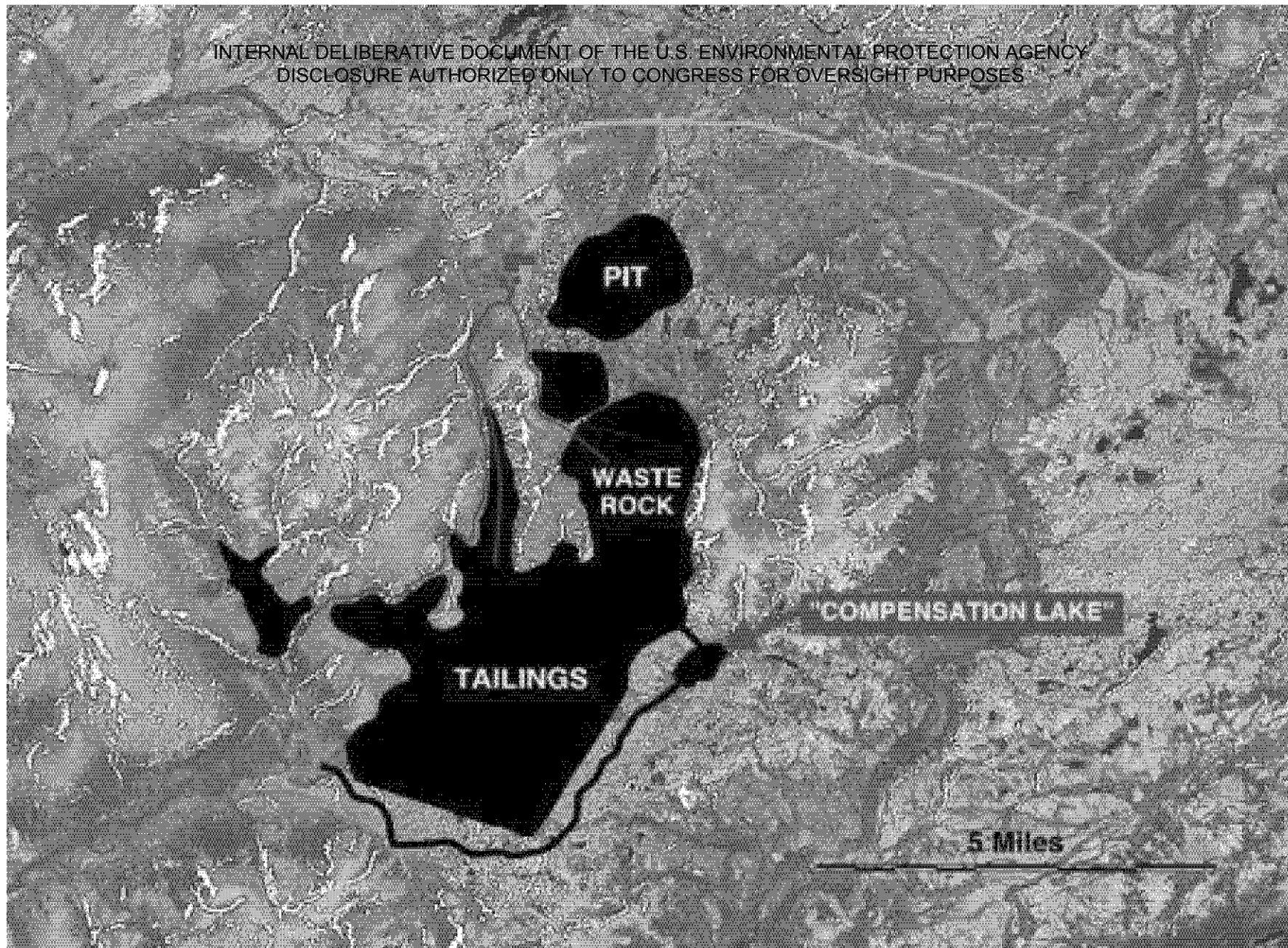
# PEOPLE MINE SITE (A-07)



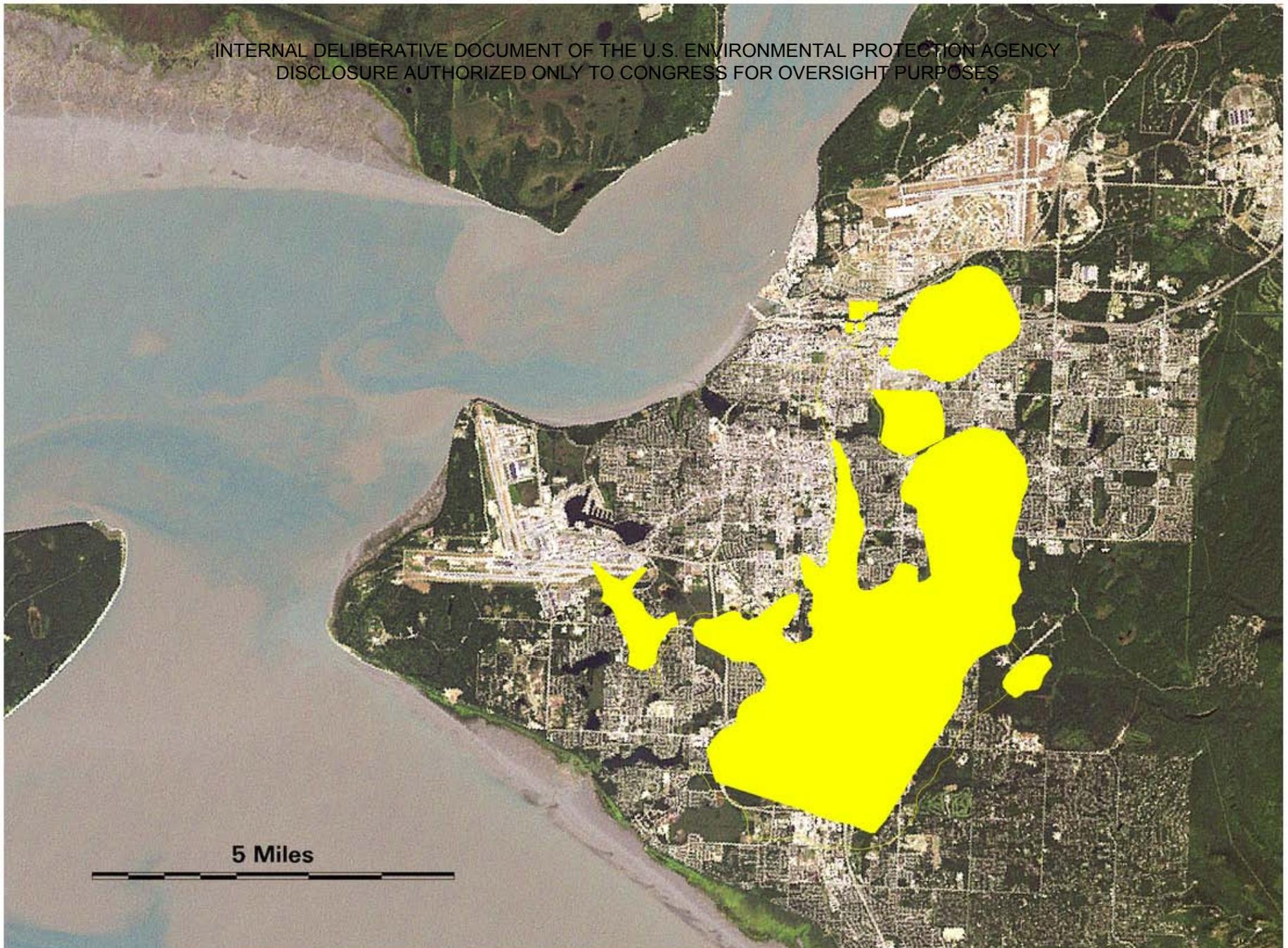
5 miles



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5 Miles

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# Mine systems



# Mine systems

- Mine Workings (open pit and underground mine)

# Mine systems

- Mine Workings (open pit and underground mine)
- Tailings impoundments

# Mine systems

- Mine Workings (open pit and underground mine)
- Tailings impoundments
- Processing Plant

# Mine systems

- Mine Workings (open pit and underground mine)
- Tailings impoundments
- Processing Plant
- Pipeline

# Mine systems

- Mine Workings (open pit and underground mine)
- Tailings impoundments
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- Road

# Mine systems

- Mine Workings (open pit and underground mine)
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- Road
- Port

# Mine systems

- Mine Workings (open pit and underground mine)
- Tailings impoundments
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- Pipeline
- Road
- Port
- Shipping

# Mine systems

- Mine Workings (open pit and underground mine)
- Tailings impoundments
- Processing Plant
- Pipeline
- Road
- Port
- Shipping
- Power generation

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# Mine Statistics



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- Copper, molybdenum, gold

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- 85+/- mile new pipeline for copper and molybdenum concentrate slurry to port
- 85+/- mile new road between port and mine site
- Open pit and subsidence area = ~2.9 X 2.2 miles

\* These are old numbers, current numbers are probably bigger.

# Environmentally Significant Mine Characteristics

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# Environmentally Significant Mine Characteristics

- “Waste rock would be expected to produce **ARD** in several decades if exposed to weathering.” – 2006 Pebble project briefing meeting.

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- **4 endangered species, 2 species of concern, several birds of conservation concern** in project area
- **Located at headwater of two watersheds that produce 1 in 8 Alaska salmon.**

# Environmentally Significant Mine

## Characteristics

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- **4 endangered species, 2 species of concern, several birds of conservation concern** in project area
- **Located at headwater of two watersheds that produce 1 in 8 Alaska salmon.**
- **Pit and subsidence area capacity is 7 million to 20 million (or more) acre-feet.**

# Environmentally Significant Mine

## Characteristics

- “Waste rock would be expected to produce **ARD** in several decades if exposed to weathering.” – 2006 Pebble project briefing meeting.
- **9 billion tons of waste** in tailings impoundments
- **85 +/- miles of pipeline** parallels shore of Lake Iliamna salmon spawning areas
- **85 mile +/- new road** parallels shore of Lake Iliamna salmon spawning grounds
- **4 endangered species, 2 species of concern, several birds of conservation concern** in project area
- **Located at headwater of two watersheds that produce 1 in 8 Alaska salmon.**
- **Pit and subsidence area capacity is 7 million to 20 million (or more) acre-feet.**
- **Water rights requested for 75,292 acre-feet/year.**

# The Place

# Natural Environment

- Mine, processing plant and tailings impoundments at head waters of upper Bristol Bay via

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- Pipeline and road along east shore of **Lake Iliamna**

# Natural Environment

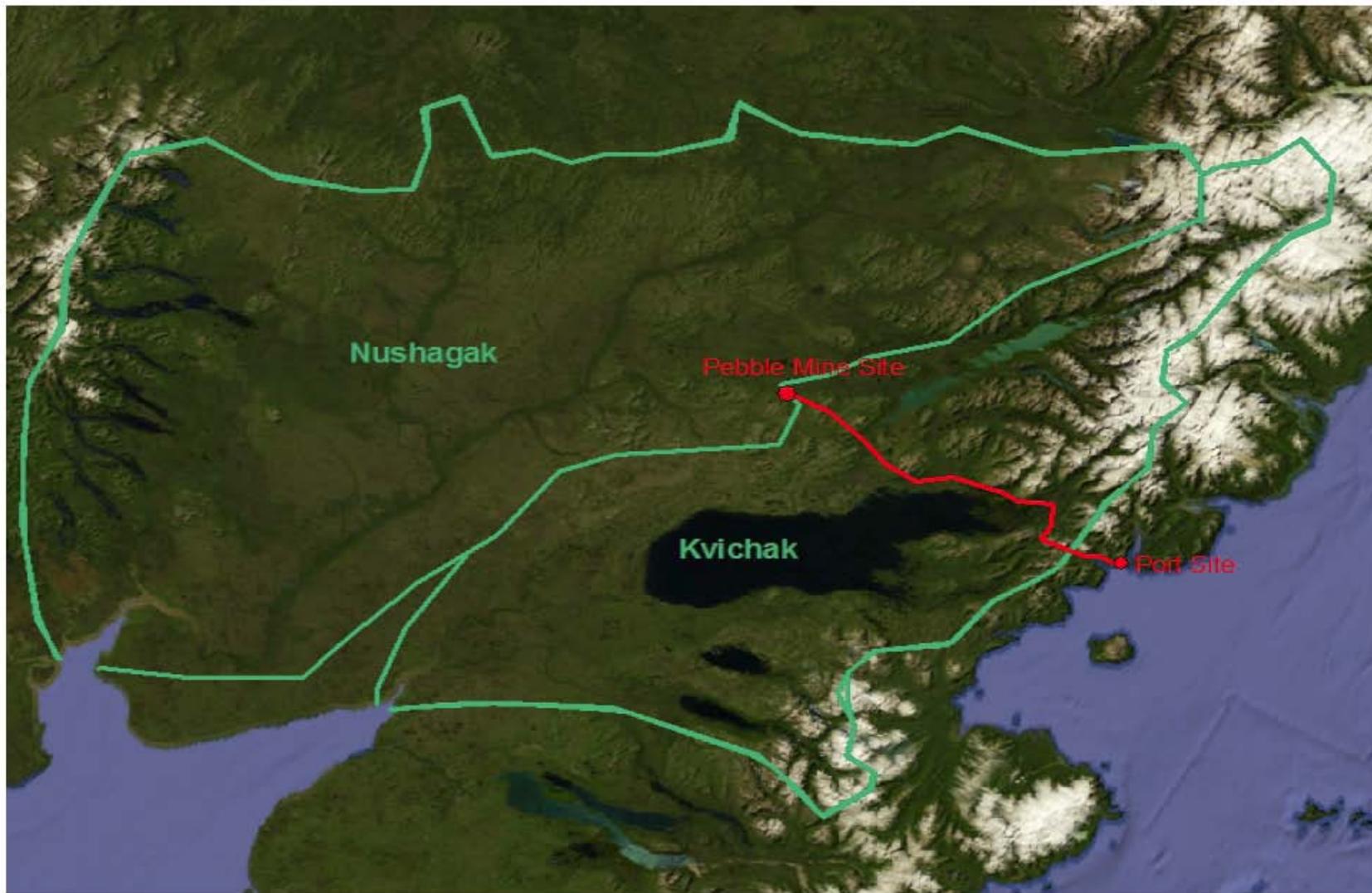
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# Natural Environment

- Mine, processing plant and tailings impoundments at head waters of upper Bristol Bay via
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- Port on **Cook Inlet**
- Shipping through **Cook Inlet and Pacific Ocean**

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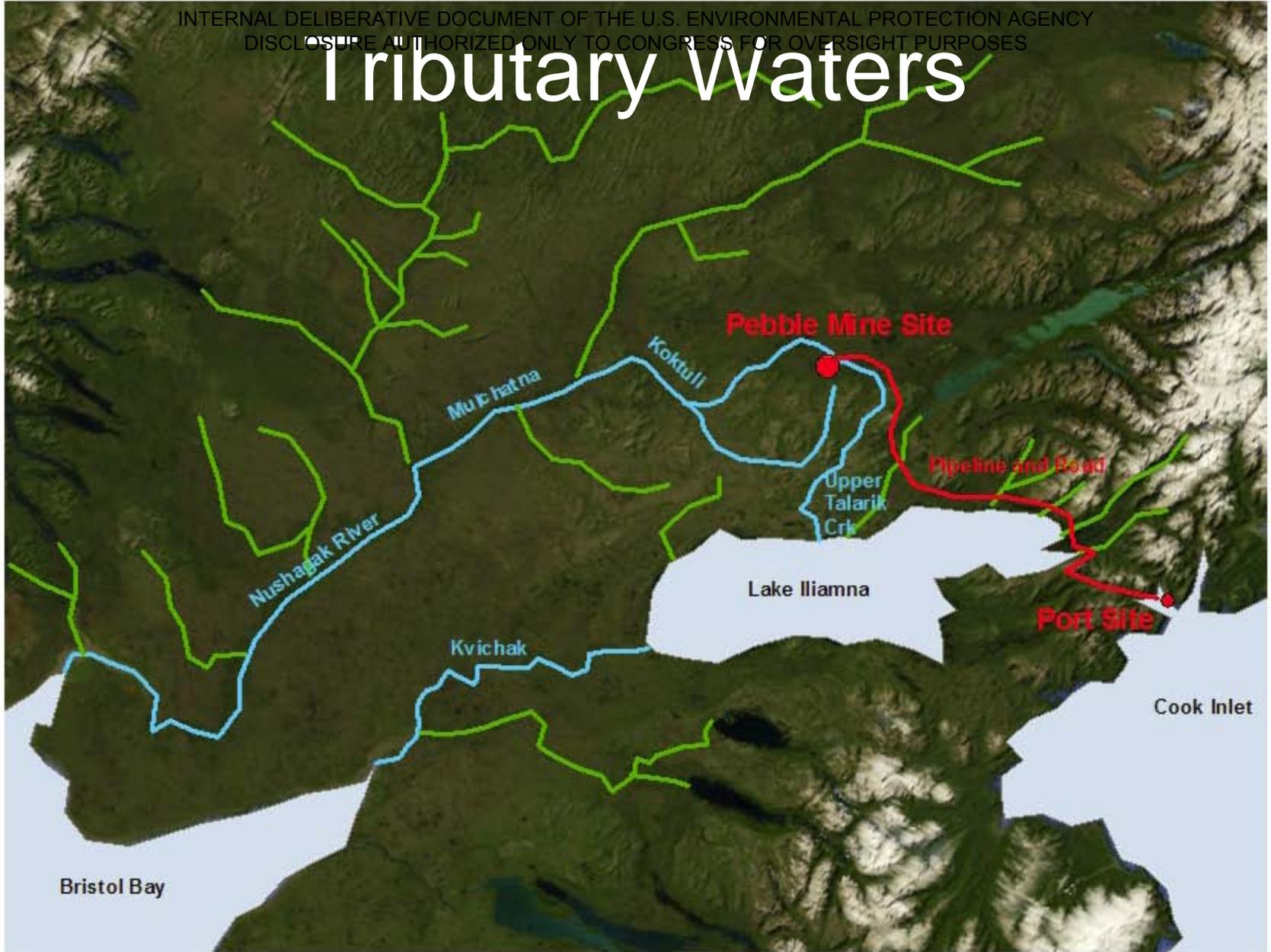
# Local Geography



# Downstream waters



# Tributary Waters



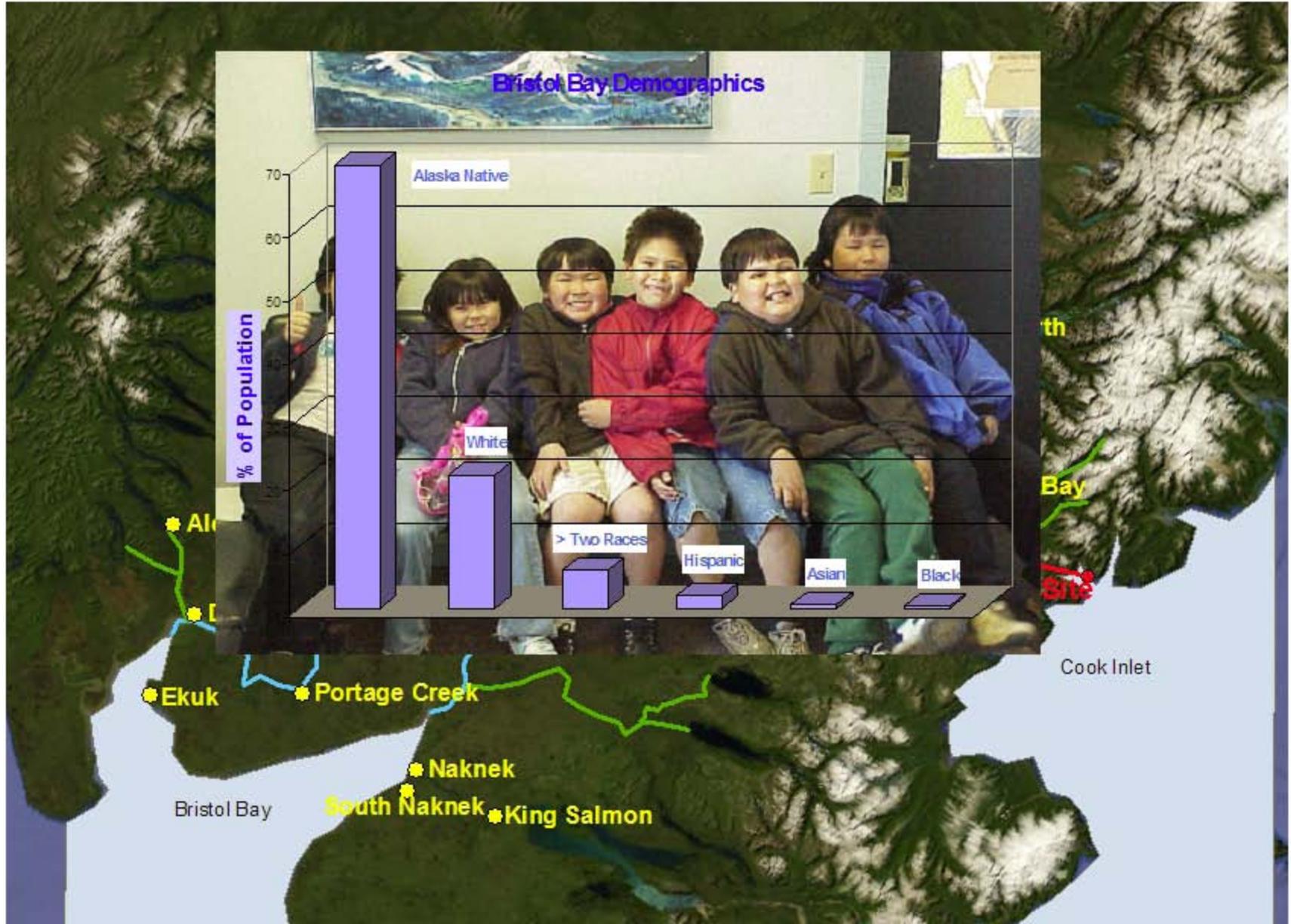
# Alaska Native Villages



# Bristol Bay Demographics

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## 70% Alaska Native



# Subsistence Food Fish Resources

**Average Kvichak watershed resident consumes 286 lbs<sup>1</sup> of subsistence harvested salmon and 23 to 54 lbs of other freshwater fish per year.**

- 1. This number is derived from ADFG data on the number of fish caught, the number of permit holders reporting and census data on the number of people per household. It assumes one permit per household and does not take into account sharing within the communities.**

# Public Opinion

## Key findings:

- **Bristol Bay**
  - **70.6 percent opposed, with 20.7 percent favoring and 8.7 percent undecided, and**
- **State wide**
  - **53 percent opposed, 28 percent are in favor and 19 percent are undecided**

Commissioned by the Renewable Resources Coalition

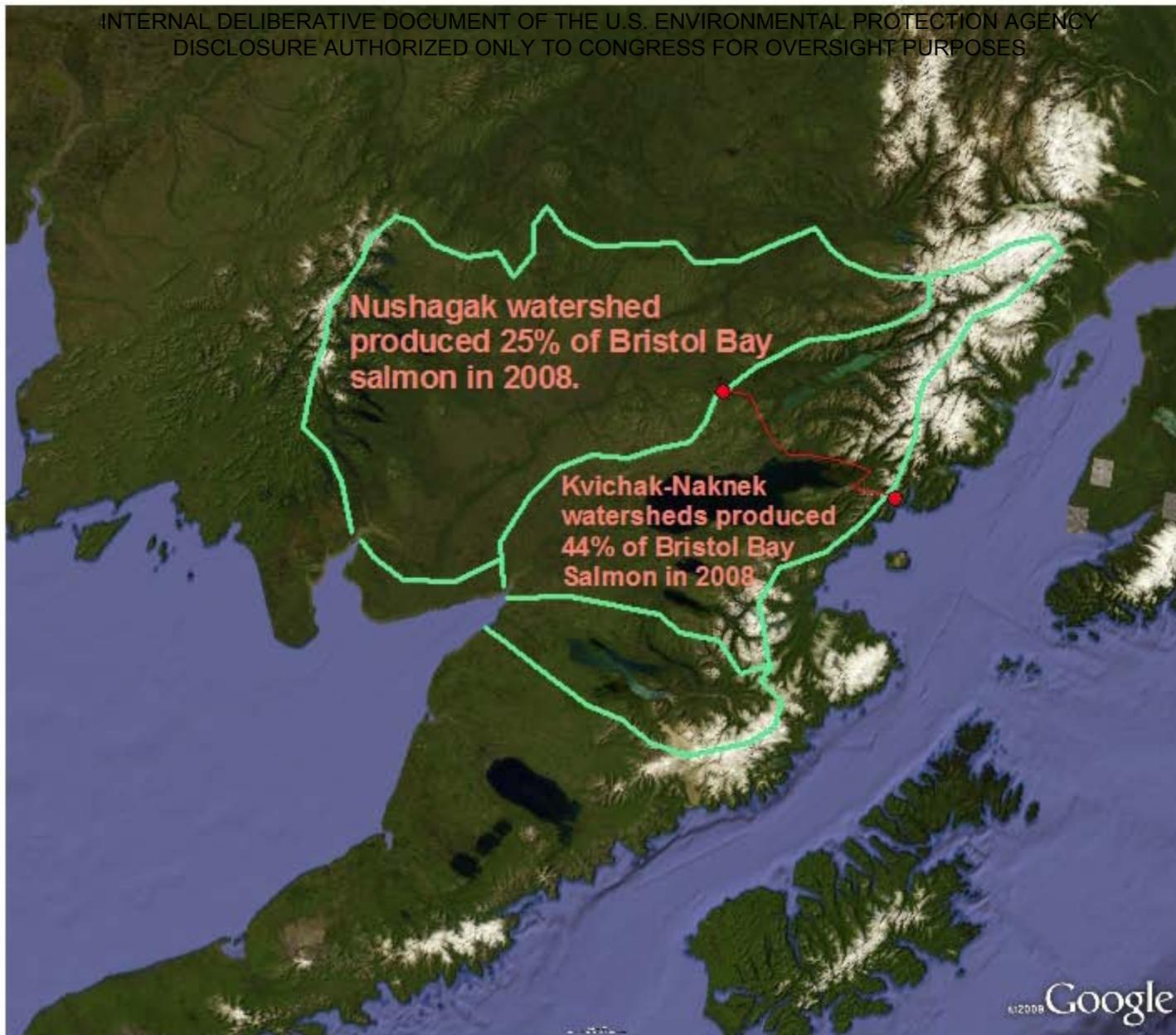
Conducted by Hellenthal & Associates and The Cromer Group of  
Washington, DC.

**“Rest assured, the Lake and Peninsula Borough will not trade our pristine environment or our fish for a mine. If the project is not shown to be environmentally safe, we will oppose it.”**

**Glen Alsworth Sr., Mayor  
Lake and Peninsula Borough**

**Letter to Governor Murkowski**

**March 1, 2006**







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# Pebble will maintain the productive capacity in local river systems

## Pebble Region Escapement is 0.5% of Total Bristol Bay Escapement



A satellite-style map of the Pacific Northwest coast of North America, showing the coastline from Alaska down to the northern part of California. The land is depicted in shades of green and brown, while the ocean is dark blue. The map highlights the coastal regions of Alaska, British Columbia, and Washington. The text is overlaid on the lower-left portion of the map, over the Pacific Ocean.

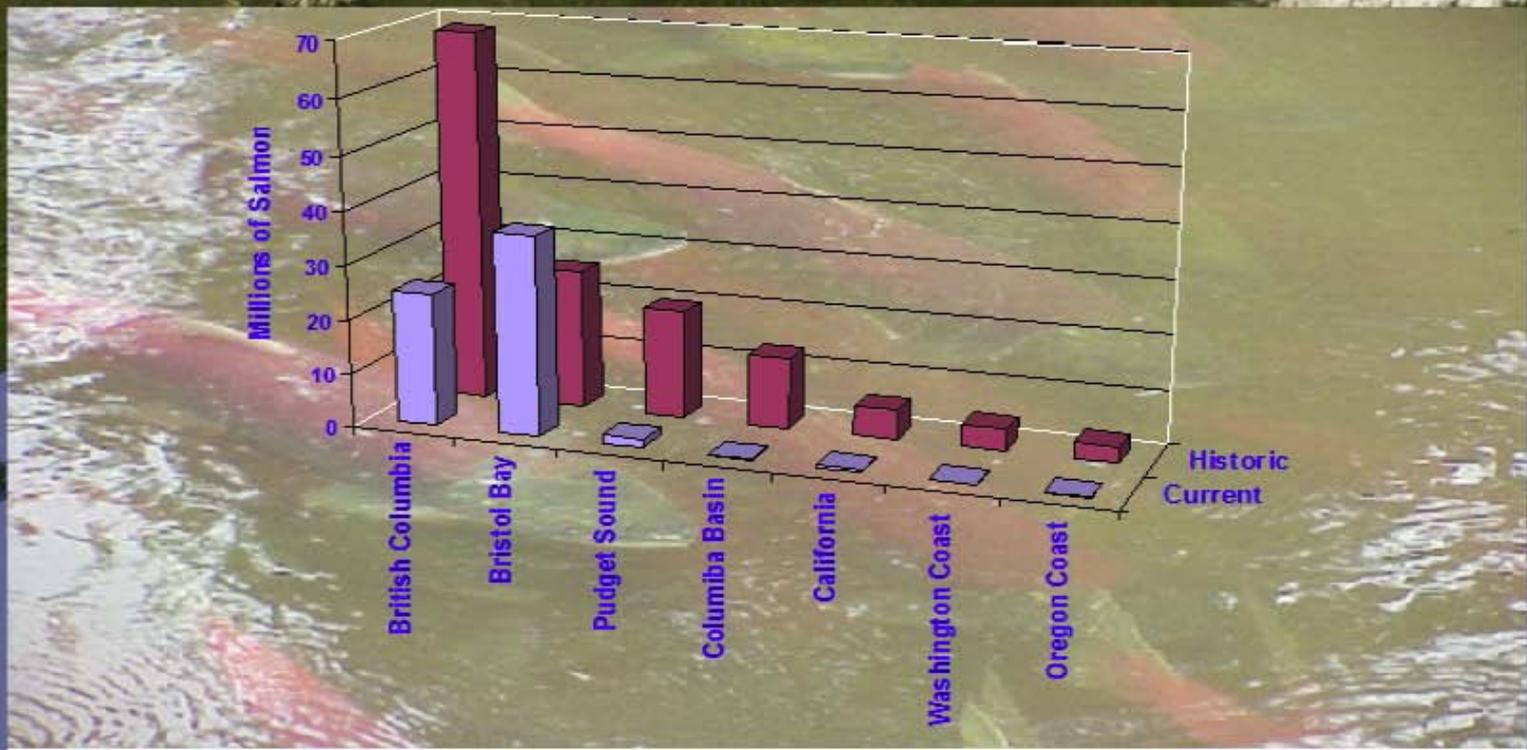
Bristol Bay and Cook Inlet  
are the last two regions on  
the west coast of North America  
with historic levels of wild Pacific salmon.

# Bristol Bay currently produces more salmon than any

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## other watershed on earth.

Historic and Current West Coast North America Salmon Run Size



## Marine Species of Special Interest



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# Terrestrial Wildlife



# Shorebirds, Gulls, Game Birds, and Woodpeckers

Species of conservation concern.



- **Greater Yellowlegs**
- **Wilson's Snipe**
- **Whimbrel**
- **Black Oystercatcher**
- **American Three-toed woodpecker**
- **Bonapart's Gull**
- **American Golden Plover**
- **Pacific Golden Plover**
- **Lesser Yellowlegs**
- **Mew Gull**
- **Downy Woodpecker**
- **Hairy Woodpecker**
- **Spruce Grouse**
- **Rock Ptarmigan**
- **Least Sandpiper**
- **Long-tailed Jaeger**
- **Black-bellied Plover**
- **Red-necked Phalarope**
- **Short-billed Dowitcher**
- **Willow Ptarmigan**
- **Wandering Tattler**
- **Surfbird**
- **Hudsonian Godwit**

# Passerines

## Species of conservation concern



- Wilson's Warbler
- Orange-crowned Warbler
- Golden-Crowned Sparrow
- Swainson's Thrush
- Yellow-rumped Warbler
- Hermit Thrush
- Dark-eyed Junco
- Yellow Warbler
- Ruby-crowned Kinglet
- American Robin
- Savannah Sparrow
- Blackpoll Warbler
- Fox Sparrow
- White-crowned sparrow
- Gray-cheeked Thrush
- Northern Water thrush
- Olive-sided Flycatcher
- American Tree Sparrow
- White-winged Crossbill
- American Tree Sparrow
- Lapland Longspur
- Bank Swallow
- Common Raven
- Lincoln's Sparrow
- Tree Swallow
- Gray Jay
- Boreal Chickadee
- Alder Flycatcher
- Black-billed Magpie
- Black-capped Chickadee
- Red-breasted Nuthatch
- Common Redpoll
- Northern Shrike
- Golden-crowned Kinglet
- Common Raven
- Violet-green Swallow
- Bohemian Waxwing
- Rusty Blackbird
- Song Sparrow
- Lapland Longspur
- Pine Grosbeak
- American Dipper
- Arctic Warbler
- American Pipit
- Horned Lark
- Snow Bunting

# Water birds



- Mallard
- Northern Shoveler
- Northern Pintail
- Green-winged Teal
- Scaup spp.
- Scoter spp.
- Merganser spp.
- Long-tailed duck
- Goldeneye spp.
- Swan spp.
- Harlequin Duck
- American Wigeon
- Common Loon
- Geese spp.
- Tern spp.

# Raptors

- Bald Eagle
- Golden Eagle
- Osprey
- Red-tailed Hawk
- Great Horned Owl
- Merlin
- Northern Goshawk
- Gyrfalcon
- Peregrine Falcon
- Rough-legged Hawk



# Mammals

Caribou, brown bear, moose, harbor seals (Lake Iliamna population) and beaver were reported in updates to agencies.



# Concerns

# **Concern:**

**That the probability of an unacceptable adverse effect on Bristol Bay fisheries becomes a certainty over time.**

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# Mine systems that will potentially contribute to pollution:

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# Mine systems that will potentially contribute to pollution:

- Mine Workings (open pit and underground mine)

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# Mine systems that will potentially contribute to pollution:

- Mine Workings (open pit and underground mine)
- Tailings impoundments

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- Processing Plant

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# Mine systems that will potentially contribute to pollution:

- Mine Workings (open pit and underground mine)
- Tailings impoundments
- Processing Plant
- Pipeline
- Road

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- Road
- Port

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- Road
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- Shipping

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# Mine systems that will potentially contribute to pollution:

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- Power generation

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- **Tailings impoundments**
- Processing Plant
- Pipeline
- Road
- Port
- Shipping
- Power generation

# Three Time Frames:

- Operations

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- Operations
- Post operations maintenance
- **Perpetuity**

Sources, major potential pollutants and receiving waters  
associated with the Pebble Copper Mine

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Source	Discharge Point	Pollutants	Potential Receiving Water(s) ( in order of probability)
Acid Mine Drainage			
Cu/Mo Concentrate			
Tailings			
Sediment from the road			

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Tailings			
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Sediment from the road			

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Tailings			
Sediment from the road			

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Tailings	Impoundments		
Sediment from the road			

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Sediment from the road			

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Sediment from the road	Roadside ditches and culverts		

**Sources, major potential pollutants and receiving waters  
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Acid Mine Drainage	<ul style="list-style-type: none"> <li>- mine working,</li> <li>- tailing impoundments</li> </ul>	<ul style="list-style-type: none"> <li>- low pH (3 – 5)</li> <li>- dissolved metals</li> </ul>	<ul style="list-style-type: none"> <li>- Upper Talarik Creek</li> <li>- North Fork Koktuli River</li> <li>- South Fork Koktuli River</li> </ul>
Cu/Mo Concentrate	<ul style="list-style-type: none"> <li>- pipeline</li> <li>- shipping</li> </ul>	<ul style="list-style-type: none"> <li>- dissolved Cu</li> <li>- dissolved Mo</li> <li>- high pH (8 – 9)</li> </ul>	<ul style="list-style-type: none"> <li>- Lake Iliamna</li> <li>- Cook Inlet</li> <li>- Upper Talarik Creek</li> <li>- North Fork Koktuli</li> </ul>
Tailings	Impoundments	<ul style="list-style-type: none"> <li>- low pH</li> <li>- metals</li> <li>- sediment</li> <li>- other pollutants from benefaction process</li> </ul>	<ul style="list-style-type: none"> <li>- North Fork Koktuli</li> <li>- South Fork Koktuli</li> <li>- Upper Talarik Creek</li> <li>- downstream waters (Nushagak and Kvichak River systems, Lake Iliamna and Bristol Bay?)</li> </ul>
Sediment from the road	Roadside ditches and culverts	Sediment	

# Sources, major potential pollutants and receiving waters

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## associated with the Pebble Copper Mine

Source	Discharge Point	Pollutants	Potential Receiving Water(s) ( in order of probability)
Acid Mine Drainage	- mine working, - tailing impoundments	- low pH (3 – 5) - dissolved metals	- Upper Talarik Creek - North Fork Koktuli River - South Fork Koktuli River
Cu/Mo Concentrate	- pipeline - shipping	- dissolved Cu - dissolved Mo - high pH (8 – 9)	- Lake Iliamna - Cook Inlet - Upper Talarik Creek - North Fork Koktuli
Tailings	Impoundments	- low pH - metals - sediment - other pollutants from benefaction process	- North Fork Koktuli - South Fork Koktuli - Upper Talarik Creek - downstream waters (Nushagak and Kvichak River systems, Lake Iliamna and Bristol Bay?)
Sediment from the road	Roadside ditches and culverts	Sediment	- Lake Iliamna (and tributaries) - Cook Inlet - Talarik Creek

Sources, major potential pollutants and receiving waters  
associated with the Pebble Copper Mine

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Source	Discharge Point	Pollutants	Potential Receiving Water(s) ( in order of probability)
<b>Acid Mine Drainage</b>	<ul style="list-style-type: none"> <li>- mine working,</li> <li>- tailing impoundments</li> </ul>	<ul style="list-style-type: none"> <li>- low pH (3 – 5)</li> <li>- dissolved metals</li> </ul>	<ul style="list-style-type: none"> <li>- Upper Talarik Creek</li> <li>- North Fork Koktuli River</li> <li>- South Fork Koktuli River</li> </ul>
Cu/Mo Concentrate	<ul style="list-style-type: none"> <li>- pipeline</li> <li>- shipping</li> </ul>	<ul style="list-style-type: none"> <li>- dissolved Cu</li> <li>- dissolved Mo</li> <li>- high pH (8 – 9)</li> </ul>	<ul style="list-style-type: none"> <li>- Lake Iliamna</li> <li>- Cook Inlet</li> <li>- Upper Talarik Creek</li> <li>- North Fork Koktuli</li> </ul>
<b>Tailings</b>	<b>Impoundments</b>	<ul style="list-style-type: none"> <li>- low pH</li> <li>- metals</li> <li>- sediment</li> <li>- other pollutants from benefaction process</li> </ul>	<ul style="list-style-type: none"> <li>- North Fork Koktuli</li> <li>- South Fork Koktuli</li> <li>- Upper Talarik Creek</li> <li>- downstream waters (Nushagak and Kvichak River systems, Lake Iliamna and Bristol Bay?)</li> </ul>
Sediment from the road	Roadside ditches and culverts	Sediment	<ul style="list-style-type: none"> <li>- Lake Iliamna (and tributaries)</li> <li>- Cook Inlet</li> <li>- Talarik Creek</li> </ul>

# 2004 Geochemical Data

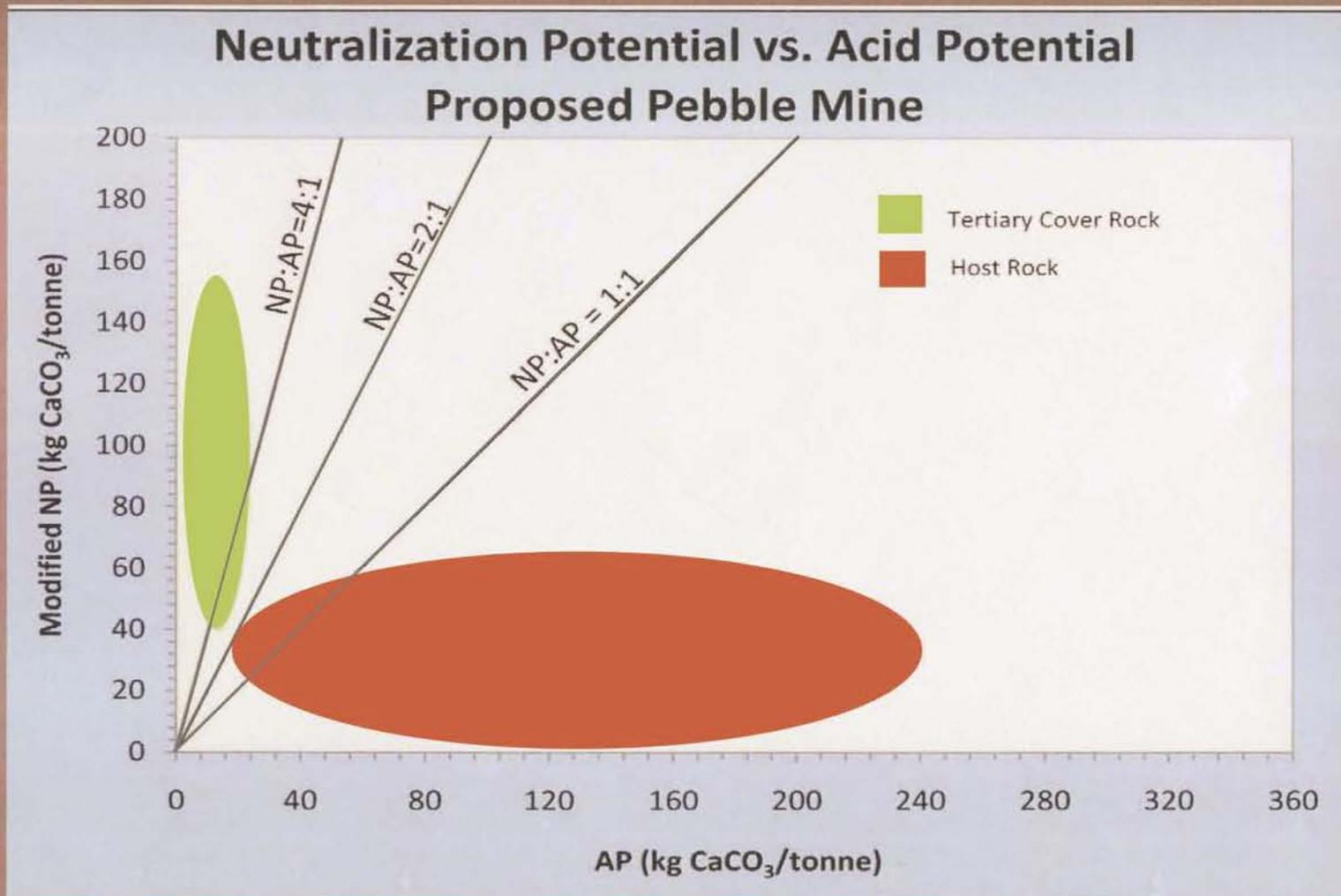
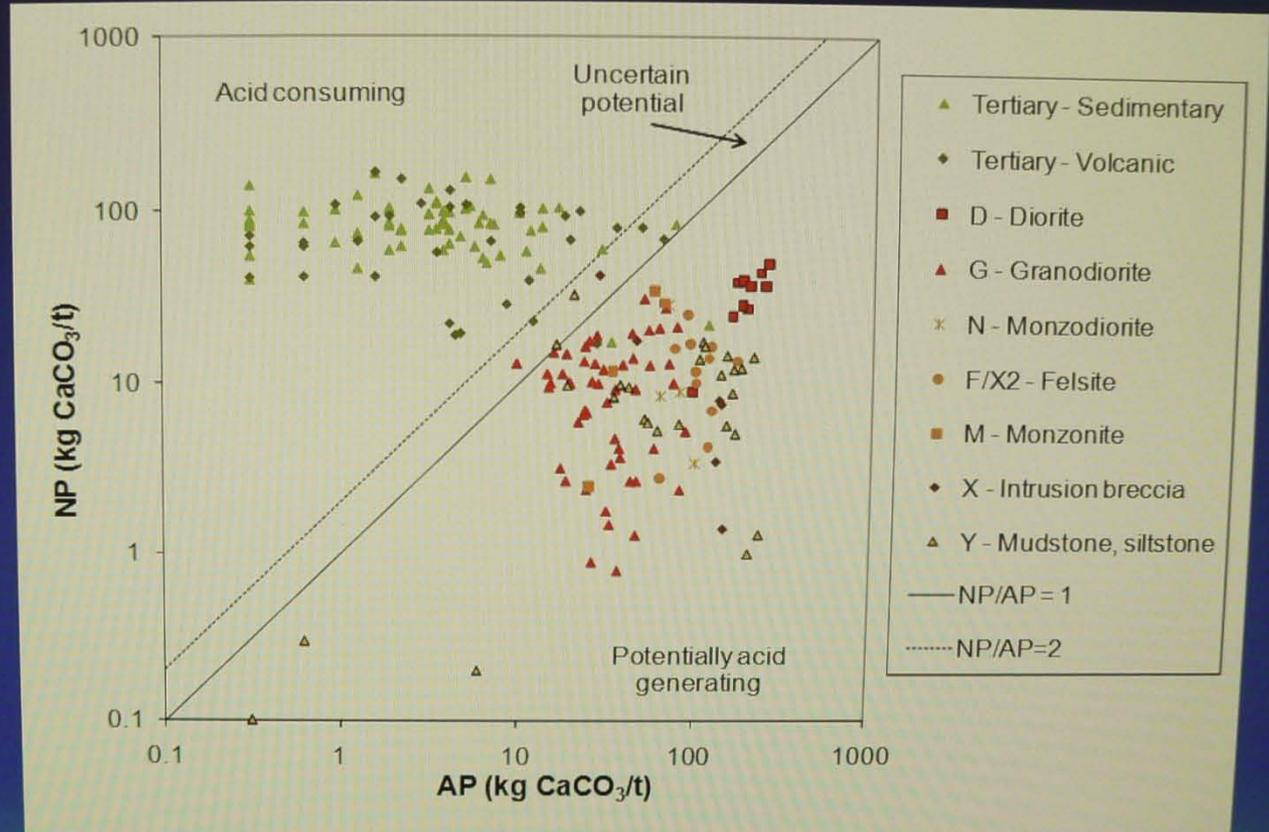


Illustration derived from Fig. 5, Chapter 8, 2004 Progress Report, June 13, 2005.

# Acid-Base Accounting (Rock)

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- Cretaceous mineralized rock is mainly PAG.
- Tertiary rock is mainly non-PAG.



- Charts show West Zone data
- East Zone shows similar results to West Zone

**“...since tailings are either raised or valley impoundments, they are likely to remain saturated for only a limited period of time during mine operation. Following mine closure the free water surface in the impoundment may be drawn down substantially, favoring AMD conditions.”**

**Source : EPA Technical Document - Acid Mine Drainage Prediction. 1994. EPA530-R-94-036. Page 7.**

“...since tailings are either raised or valley impoundments, they are likely to **remain saturated for only a limited period of time** during mine operation. Following mine closure the free water surface in the impoundment **may** be drawn down substantially, favoring AMD conditions.”

Source : EPA Technical Document - Acid Mine Drainage Prediction. 1994. EPA530-R-94-036. Page 7.

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)			
Tailings Impoundments (AMD)			
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low		
Tailings Impoundments (AMD)			
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	
Tailings Impoundments (AMD)			
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)			
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>		
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)			
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low		
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)			
Shipping (Cu/Mo Concentrate)			

## Risk = **Likelihood** X Consequences

### Pollution Sources and Probability of Release as a Function of Mine Status and Time

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)	<b>Low to medium</b>		
Shipping (Cu/Mo Concentrate)			

## Risk = **Likelihood** X Consequences

### Pollution Sources and Probability of Release as a Function of Mine Status and Time

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)	<b>Low to medium</b>	None	
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)	<b>Low to medium</b>	None	None
Shipping (Cu/Mo Concentrate)			

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)	<b>Low to medium</b>	None	None
Shipping (Cu/Mo Concentrate)	Low		

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)	<b>Low to medium</b>	None	None
Shipping (Cu/Mo Concentrate)	Low	None	

**Risk = Likelihood X Consequences**

**Pollution Sources and Probability of Release as a Function of Mine Status and Time**

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Mine Component	Probability of a Release		
	During Operations 30 to 100 years	Post Operations Maintenance 100 to 200 years??	Post Maintenance 200 to ?? years
Mine workings (AMD)	Low	Low	<b>High</b>
Tailings Impoundments (AMD)	Low to <b>medium</b>	Low to <b>medium</b>	<b>High</b>
Tailings Impoundments (Toxic sediment)	Low	Low	<b>Increases over time (approaches certainty)</b>
Pipeline (Cu/Mo Concentrate)	<b>Low to medium</b>	None	None
Shipping (Cu/Mo Concentrate)	Low	None	None

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	
Acid Mine Drainage from tailings	- low pH - dissolved metals	
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	- <b>loss of salmon runs in Upper Talarik Creek</b>
Acid Mine Drainage from tailings	- low pH - dissolved metals	
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	- <b>loss of salmon runs in Upper Talarik Creek</b> - impairment of Lake Iliamna (effect on salmon and freshwater seals)
Acid Mine Drainage from tailings	- low pH - dissolved metals	
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	- <b>loss of salmon runs in Upper Talarik Creek</b> - impairment of Lake Iliamna (effect on salmon and freshwater seals) - if groundwater conveyance then loss in Kaktuli R. also
Acid Mine Drainage from tailings	- low pH - dissolved metals	
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	- <b>loss of salmon runs in Upper Talarik Creek</b> - impairment of Lake Iliamna (effect on salmon and freshwater seals) - if groundwater conveyance then loss in Kaktuli R. also
Acid Mine Drainage from tailings	- low pH - dissolved metals	- <b>loss of salmon runs in Kaktuli River</b>
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	- <b>loss of salmon runs in Upper Talarik Creek</b> - impairment of Lake Iliamna (effect on salmon and freshwater seals) - if groundwater conveyance then loss in Koktuli R. also
Acid Mine Drainage from tailings	- low pH - dissolved metals	- <b>loss of salmon runs in Koktuli River</b> - impairment of Mulchatna River, Nushagak (?) (effect on downstream and tributary salmon runs)
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

**Risk = Likelihood X Consequences**

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**Pollution scenarios and consequences**

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	- low pH - dissolved metals	- <b>loss of salmon runs in Upper Talarik Creek</b> - impairment of Lake Iliamna (effect on salmon and freshwater seals) - if groundwater conveyance then loss in Koktuli R. also
Acid Mine Drainage from tailings	- low pH - dissolved metals	- <b>loss of salmon runs in Koktuli River</b> - impairment of Mulchatna River, Nushagak (?) (effect on downstream and tributary salmon runs) - loss of salmon runs in lower part of Upper Talarik Creek
Tailings dam failure	- low pH - metals - sediment - other pollutants from the benefaction process	

# Risk = Likelihood X Consequences

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## Pollution scenarios and consequences

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	<ul style="list-style-type: none"><li>- low pH</li><li>- dissolved metals</li></ul>	<ul style="list-style-type: none"><li>- <b>loss of salmon runs in Upper Talarik Creek</b></li><li>- impairment of Lake Iliamna (effect on salmon and freshwater seals)</li><li>- if groundwater conveyance then loss in Kaktuli R. also</li></ul>
Acid Mine Drainage from tailings	<ul style="list-style-type: none"><li>- low pH</li><li>- dissolved metals</li></ul>	<ul style="list-style-type: none"><li>- <b>loss of salmon runs in Kaktuli River</b></li><li>- impairment of Mulchatna River, Nushagak (?) (effect on downstream and tributary salmon runs)</li><li>- loss of salmon runs in lower part of Upper Talarik Creek</li></ul>
Tailings dam failure	<ul style="list-style-type: none"><li>- low pH</li><li>- metals</li><li>- sediment</li><li>- other pollutants from the benefaction process</li></ul>	<ul style="list-style-type: none"><li>- <b>contamination of the bed of Kaktuli R, Mulchatna R. and Nushagak R?</b></li></ul>

# Risk = Likelihood X Consequences

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## Pollution scenarios and consequences

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	<ul style="list-style-type: none"><li>- low pH</li><li>- dissolved metals</li></ul>	<ul style="list-style-type: none"><li>- <b>loss of salmon runs in Upper Talarik Creek</b></li><li>- impairment of Lake Iliamna (effect on salmon and freshwater seals)</li><li>- if groundwater conveyance then loss in Koktuli R. also</li></ul>
Acid Mine Drainage from tailings	<ul style="list-style-type: none"><li>- low pH</li><li>- dissolved metals</li></ul>	<ul style="list-style-type: none"><li>- <b>loss of salmon runs in Koktuli River</b></li><li>- impairment of Mulchatna River, Nushagak (?) (effect on downstream and tributary salmon runs)</li><li>- loss of salmon runs in lower part of Upper Talarik Creek</li></ul>
Tailings dam failure	<ul style="list-style-type: none"><li>- low pH</li><li>- metals</li><li>- sediment</li><li>- other pollutants from the benefaction process</li></ul>	<ul style="list-style-type: none"><li>- <b>contamination of the bed of Koktuli R, Mulchatna R. and Nushagak R?</b></li><li>- <b>contaminated water flows to Bristol Bay for extended period of time</b></li></ul>

# Risk = Likelihood X Consequences

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## Pollution scenarios and consequences

Source	Pollutants	Likely Consequences
Acid Mine Drainage from workings	<ul style="list-style-type: none"><li>- low pH</li><li>- dissolved metals</li></ul>	<ul style="list-style-type: none"><li>- <b>loss of salmon runs in Upper Talarik Creek</b></li><li>- impairment of Lake Iliamna (effect on salmon and freshwater seals)</li><li>- if groundwater conveyance then loss in Koktuli R. also</li></ul>
Acid Mine Drainage from tailings	<ul style="list-style-type: none"><li>- low pH</li><li>- dissolved metals</li></ul>	<ul style="list-style-type: none"><li>- <b>loss of salmon runs in Koktuli River</b></li><li>- impairment of Mulchatna River, Nushagak (?) (effect on downstream and tributary salmon runs)</li><li>- loss of salmon runs in lower part of Upper Talarik Creek</li></ul>
Tailings dam failure	<ul style="list-style-type: none"><li>- low pH</li><li>- metals</li><li>- sediment</li><li>- other pollutants from the benefaction process</li></ul>	<ul style="list-style-type: none"><li>- <b>contamination of the bed of Koktuli R, Mulchatna R. and Nushagak R?</b></li><li>- <b>contaminated water flows to Bristol Bay for extended period of time</b></li><li>- contamination of bed of Upper Talarik Creek</li></ul>

# Risk = Likelihood X Consequences

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## Pollution scenarios and consequences

Source	Pollutants	Likely Consequences
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Tailings dam failure	<ul style="list-style-type: none"><li>- low pH</li><li>- metals</li><li>- sediment</li><li>- other pollutants from the benefaction process</li></ul>	<ul style="list-style-type: none"><li>- <b>contamination of the bed of Koktuli R, Mulchatna R. and Nushagak R?</b></li><li>- <b>contaminated water flows to Bristol Bay for extended period of time</b></li><li>- contamination of bed of Upper Talarik Creek</li><li>- contaminated sediment flows into Lake Iliamna</li></ul>

# Risk = Likelihood X Consequences

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$$\text{Risk} = \text{Likelihood} \times \text{Consequences}$$

### Pollutant scenarios and consequences

Source	Pollutants	Likely Consequences
Cu/Mo Concentrate	- Cu - Mo - high pH (8 – 9)	
Sediment from the road	Sediment	

Risk = Likelihood X **Consequences**

Pollutant scenarios and consequences

Source	Pollutants	Likely Consequences
Cu/Mo Concentrate	- Cu - Mo - high pH (8 – 9)	- Chronic or catastrophic pipeline spills along the slope east of Lake Iliamna would result in groundwater and/or surface water contamination east of the lake. <b>Salmon spawning on the east shore would be adversely affected.</b> Spawning is dependent on groundwater upwelling the source of which is the east slope.
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Sediment from the road	Sediment	- Roads are dams on the landscape that channel and concentrate water away from natural flow patterns. Storm water will carry sediment from the road to streams and onto Lake Iliamna salmon spawning beds, <b>smothering the beds in fine sediment.</b>

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# What's different about the Pebble Mine?

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# What's different about the Pebble Mine?

**Unique fishery of global  
significance.**

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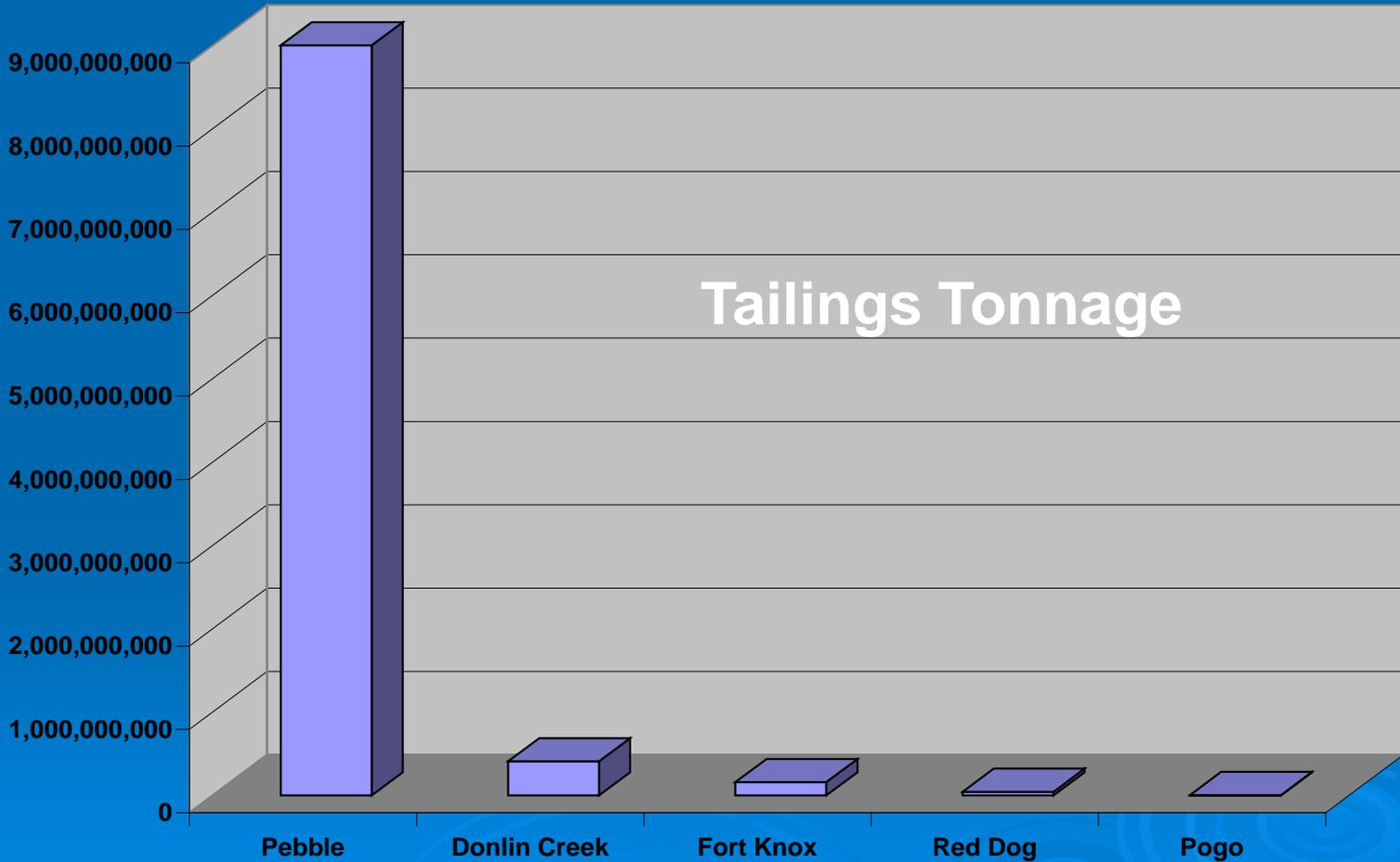
# What's different about the Pebble Mine?

## Comparison of Mines in Alaska

Mine Name	Primary Resources	Tailings (tons)	Ratio of Pebble Tailings to Other Mines
Pebble	Copper/Gold/ Molybdenum	<b>9.1 x 10<sup>9</sup></b>	
Donlin Creek	Gold	4.1 X 10 <sup>8</sup>	<b>21.9</b>
Fort Knox	Gold	1.6 X 10 <sup>8</sup>	<b>56.5</b>
Red Dog	Lead/Zinc	4.3 X 10 <sup>7</sup>	<b>208.5</b>
Pogo	Gold	4.2 X 10 <sup>6</sup>	<b>2131.8</b>

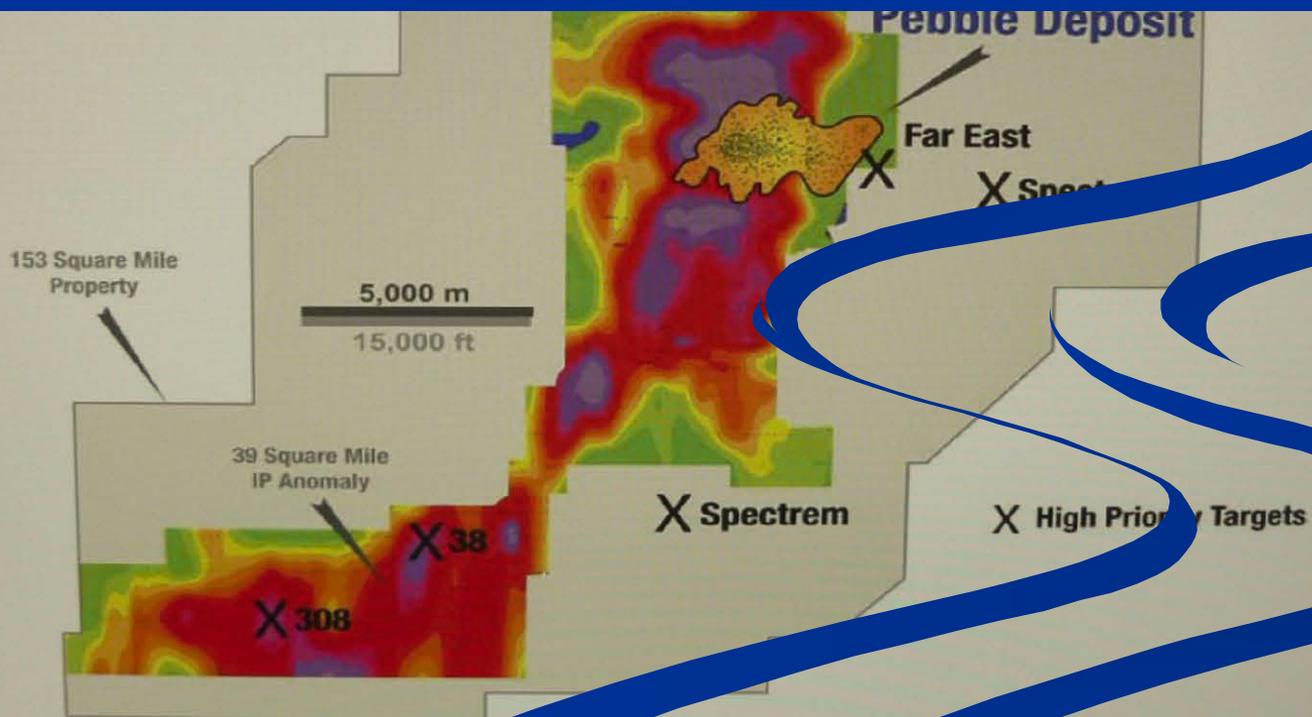
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# What's different about the Pebble Mine?

## Potential for cumulative effects



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# What's different about the Pebble Mine?

Very large mine

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**= unacceptable adverse impact**

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# Unacceptable effects:



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- **Loss of salmon runs**
- **Loss of subsistence economic resources**
- **Loss of cash economic resources**
- **Possible loss of villages**
- **Possible adverse ecological effects far downstream and into Pacific Ocean.**

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# Downstream Waters

1 in 8 Alaska salmon at risk, and the downstream ecosystems and people that depend on them.

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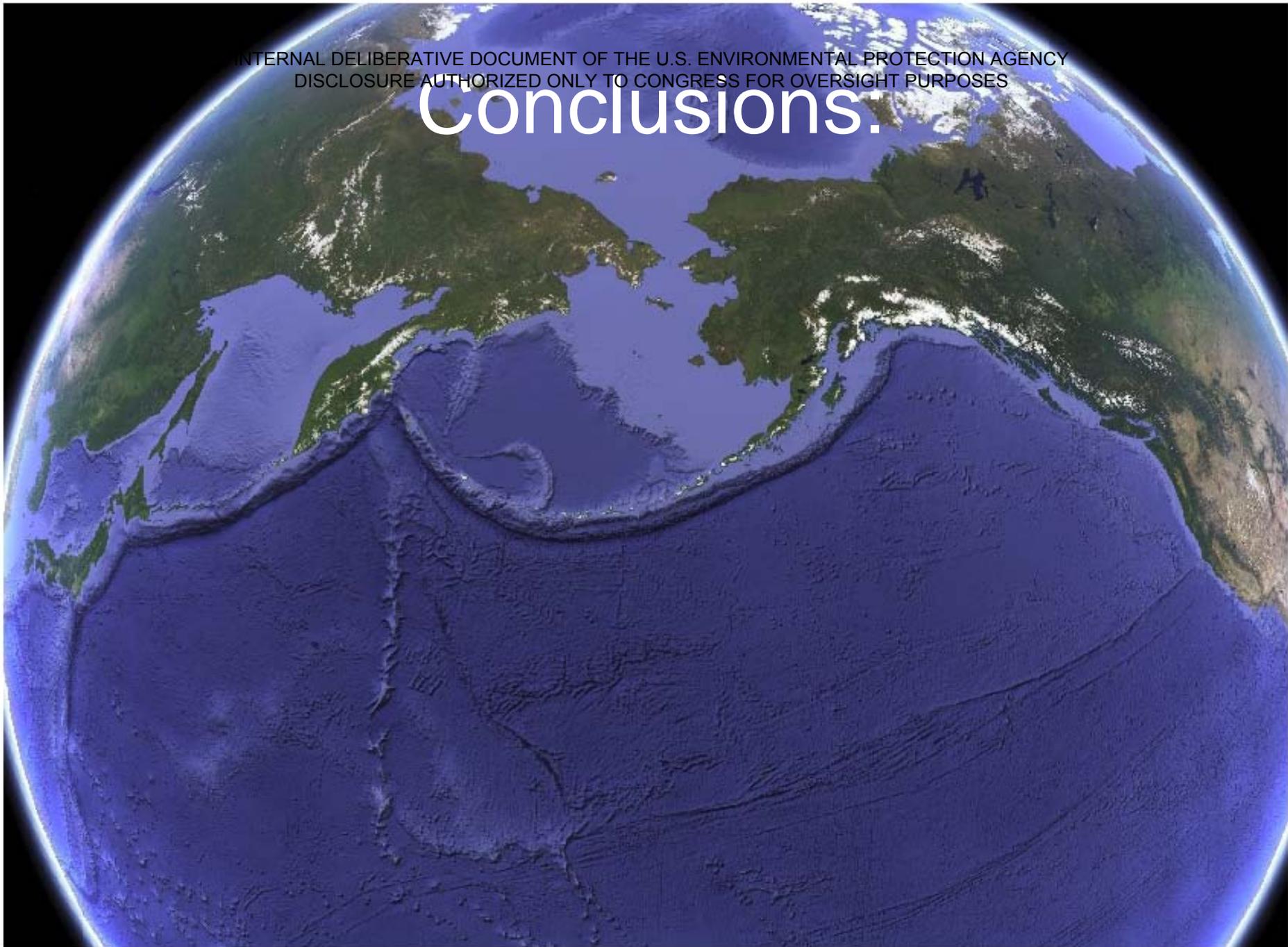
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- **What is seismic risk beyond the planning time frame? What time frame do we care about?**
- **What other climate and geologic risks are we concerned about?**

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# Conclusions.



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- Damage could extend much further down stream with losses in tributary rivers.
- Resulting in economic, cultural and ecological loss.

# Recommendations:



Pebble Copper Mine

Pipeline  
and road

Port Site

Cook Inlet

Bristol Bay

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- Brief up the line to HQ.



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- Initiate the 404C process

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# 404 C Authority

- Statute: Clean Water Act Section 404(c)

## **Denial or restriction of use of defined areas as disposal sites**

The Administrator is authorized to prohibit the specification of any defined area as a disposal site, . . . ., whenever he determines, . . . , that the discharge of such materials into such area will have an unacceptable adverse effect on . . . , shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreation.

# 404C Process

- Intent to issue notice of proposed determination (to Corps of Engineers).
- Notice of proposed determination (*Federal Register*).
- Public comment period.
- Recommended determination of withdrawal (to EPA Assistant Administrator for Water).
- Corrective action (15 days to offer alternatives).
- Final determination (by Assistant Administrator for Water).