April 27, 2017

Via Hand Delivery to:
Scott Pruitt, Administrator
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460

Re: Bristol Bay, Alaska and the Proposed Pebble Mine

Dear Administrator Pruitt:

As representatives of Bristol Bay, Alaska, we are writing to urge EPA not to rescind the Proposed Determination until its proposed restrictions can be addressed within a formal Clean Water Act 404 permitting process and National Environmental Policy Act (NEPA) assessment.[1] The signatories to this letter represent the economic, cultural, and social foundations of Bristol Bay, Alaska, home of the world's most valuable wild salmon fishery.

Bristol Bay is home to a 130-year-old commercial fishery that supports 14,000 American jobs in Bristol Bay and generates $500 million in direct income annually. Nationally, our fishery supports 20,000 American jobs, and generates over $1.5 billion in annual economic activity. Bristol Bay is also a bucket list destination for hunters and anglers, whose hunting and fishing trips support an additional 850 jobs and add $60 million annually to the region's economy. Simply stated, the people and communities of Bristol Bay economically and culturally depend on the region's fisheries and our organizations will not risk those resources to a large-scale mining project proposed by foreign interests. America elected President Trump last November in large part because he spoke convincingly about creating and maintaining good jobs for American workers. This administration has an early opportunity to put his words into action by protecting Bristol Bay's incredible fisheries and the thousands of jobs that those fisheries support.

[1] This is an approach EPA has used to resolve other Section 404(c) proposals. This includes the Kuparuk oil field development permit on the North Slope of Alaska, as well as other instances in which EPA has issued a proposal and held it in place pending more information on the proposed project. The documents that accompany this letter provide more information about these examples.

Senator Murkowski is kindly delivering to you supporting materials that define our position on EPA's 404(c) proposal. For the purpose of this letter, we emphasize some key factors for your consideration.

For the past decade, our organizations have opposed development of the proposed Pebble Mine because the mine plan proposed and touted by the Pebble Limited Partnership (PLP) presents a mine that poses fundamental risks to the salmon fisheries of the region and the economic and subsistence benefits those fisheries provide. PLP has always enjoyed the right to commence the permitting process, but has failed to do so despite a decade of promises to do so. Given the ten-plus years our organizations have been waiting for PLP to commence the Clean Water Act 404 permitting process, we would prefer that EPA finalize the Proposed Determination as soon as is possible.

Reconsideration of the Proposed Determination outside of a permitting process and NEPA review would require a lengthy administrative exercise that would not bring anyone – not the public, the State, Pebble, or EPA – any closer to resolving issues with the proposed Pebble Mine. To our knowledge, PLP has not produced any new mining plans or proposals that would warrant a change to EPA's evaluation of the project. Accordingly, there is no administrative record to justify rescinding or revising the Proposed Determination. Furthermore, any reconsideration of the Proposed Determination would require EPA to provide everyone who participated in the development of the proposal – that is 670,000 people, 99% of whom supported EPA's actions – an opportunity to comment on the agency's decision to rescind or revise. This would pose a significant distraction from other EPA priorities and needlessly rekindle the Pebble debate without any new information about the project.

In fact, evaluation of the project within NEPA review is the exact process PLP advocated for leading up to the Proposed Determination. More to the point, PLP has publicly taken the position that Pebble should proceed only if it can "co-exist" with the region's fisheries. The process we are suggesting here preserves PLP's full opportunity to make good on that promise.

By retaining the Proposed Determination to help inform the permitting process, the administration would be standing up for 20,000 American jobs that owe their existence to the region's commercial fisheries, including 14,000 jobs in Bristol Bay. It would be standing up for commercial fishermen who harvest each summer some of the 50 million salmon returning to the Bay. It would be standing up for a commercial fishery that generates nearly $1.5 billion in national economic activity annually. And it would be standing up for the people of Bristol Bay who are culturally identified by the region's salmon runs and rely on salmon to feed their families.

We urge EPA not to rescind the Proposed Determination until its proposed restrictions can be addressed within a formal Clean Water Act 404 permitting process and NEPA assessment.

Sincerely,

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Cc: Senator Lisa Murkowski
Senator Dan Sullivan
Congressman Don Young

Bristol Bay

The Bristol Bay region is located in Southwest Alaska. Its 31 villages are situated along vast waterways leading to the eastern arm of the Bering Sea.

Table of Contents for Supporting Materials

1. 2017 Newspaper Opinion-Editorials

   - *President Trump Wants to Protect American Jobs. He Should Start in Bristol Bay*, by Jason Metrokin, President and CEO of Bristol Bay Native Corporation (to be published)

   - *Pebble is still the wrong mine in the wrong place*, by Brian Kraft, owner of lodges on the Kvichak River and Wood-Tikchik State Park in Bristol Bay, Alaska

2. Economic Value of Bristol Bay, A National Treasure

3. Economic Certainty Needed for Fishing Industries of Bristol Bay

4. Letter from Senator Lisa Murkowski to the Pebble Limited Partnership (July 1, 2013)

5. Timeline of Protecting the World's Largest Sockeye Salmon Fishery

6. EPA's Proposed Determination Brings Economic and Cultural Certainty to Our Region

7. Withdrawal of the Proposed Determination Is Not Supported by Fact or Law

8. Overwhelming Public Support for EPA Action to Protect Bristol Bay

9. Alaskans and Bristol Bay Residents Support EPA's Proposed Determination

10. Alaska and National Sportsmen Support EPA's Proposed Determination

11. *The Economic Importance of the Bristol Bay Salmon Industry*, Executive Summary, by the Institute of Social and Economic Research at University of Alaska Anchorage

12. Selected 404(c) Petitions to EPA – from Federally-Recognized Tribes and Bristol Bay Native Corporation

Back Pocket Bristol Bay Regional Guide

Supporting Materials #1

DRAFT (to be published) op ed from BBNC President and CEO Jason Metrokin

President Trump Wants to Protect American Jobs. He Should Start in Bristol Bay.

"Every decision… will be made to benefit American workers and American families."

-President Donald Trump's Inaugural Address

America elected President Trump in large part because he spoke convincingly about creating and maintaining good jobs for American workers. He has an opportunity to put his words into action by protecting Bristol Bay's incredible fisheries and the thousands of jobs they support.

At first glance, standing up for Bristol Bay may not seem like an issue tailor-made for President Trump. After all, it was President Obama's Environmental Protection Agency (EPA) that took the initial steps to protect this unmatched resource from the potential impacts of the proposed Pebble Mine.

But a deeper look will show that ensuring the Pebble Mine will not threaten the region's fisheries is the type of move that we should expect from a President who doesn't fit neatly into a partisan box.

By protecting Bristol Bay's fisheries, President Trump would be standing up for nearly 20,000 American jobs they support, including 12,000 in Bristol Bay alone. He would be standing up for commercial fishermen who harvest some of the 50 million salmon that return to the Bay each year. He would be standing up for a commercial fishery that annually generates nearly $1.5 billion in national economic activity. And he would be standing up for the people of Bristol Bay who are culturally identified by the region's salmon runs and rely on salmon to feed their families.

Bristol Bay is also a bucket list destination for hunters and anglers, where they spend millions and contribute to the employment of 850 lodge owners, guides, pilots and other staff, and add $60 million to the region's economy.

Simply stated, Bristol Bay's communities and people depend on the region's fisheries and wildlife, and the Lower 48 benefits as well. As one past President and Secretary of the Interior have noted, Bristol Bay is "a national treasure." And these amazing resources would be jeopardized if the country allows Pebble Mine to be developed.

The Pebble claims are the sole asset of Canadian company Northern Dynasty Minerals. If developed as described in the company's feasibility studies, Pebble would potentially be North America's largest open pit mine and would eradicate, drain or otherwise threaten several of the streams and rivers vital to Bristol Bay salmon. Completion of the mine could take both demand and value from this 130-year-old fishery.

For years, the people of Bristol Bay have known Pebble could destroy everything they have built. That is why they petitioned EPA to place safeguards for mining the Pebble deposit. Though that process stalled due to a still-pending court case, the EPA's independent science-based Watershed Assessment concluded that Pebble Mine is too risky for Bristol Bay's fisheries, culture and economy.

Desperate for good news for a project opposed by nearly 60% of Alaskans and 80% of Bristol Bay residents, supporters of the Pebble Mine rallied around President Trump's November victory. They believe a Trump EPA will green light all development projects. The mine's allies have even gone as far as to exaggerate Pebble's in-region support, inflate the jobs it would create and float permitting a smaller mine previously deemed economically unfeasible.

These rosy predictions fail to understand that the size, scope and location of the Pebble Mine are not up for debate. They also fail to account for the free market; in February, an investment fund recommended shorting Northern Dynasty's stock, calling it "worthless." Its detailed report prompted multiple law firms to file lawsuits regarding possible federal securities violations resulting from the relentless promotion of the Pebble Mine.

Alaskans are on board with the President's efforts to promote American jobs. Indeed, there are many opportunities to create jobs here, from investing in military installations to responsibly tapping into our vast oil reserves.

But few other issues offer President Trump an opportunity to stand up for thousands of American jobs - jobs directly threatened by a foreign corporation whose promised jobs will not last forever.

We are confident President Trump will do the right thing and protect the sustainable jobs in Bristol Bay.

Jason Metrokin is President and CEO of Anchorage, Alaska-based Bristol Bay Native Corporation.

Alaska Dispatch News

Opinions

Pebble is still the wrong mine in the wrong place

Author: Brian Kraft Updated: January 24 Published January 24

An aerial view of a work camp in the area of the proposed Pebble mine near Iliamna seen on Aug. 27, 2013. The Pebble mine could be the largest open-pit mine on the continent, with an earthen tailings dam higher than the Washington Monument to hold mine waste for hundreds to thousands of years, according to an Environmental Protection Agency analysis. (Bill Roth / ADN archive 2013)

Backers of the Pebble mine seem to think that the recent election grants them a green light to proceed with a mine that risks American jobs and Alaska's economy. Reality says otherwise: Opposition to the Pebble mine has never been greater or more widespread. Alaskans and hundreds of thousands of others across the country are united in the fact that the Pebble mine is too risky because it trades lasting American jobs for temporary ones backed by a foreign mining conglomerate.

In December, thousands of Alaskans spoke up in opposition to the Pebble mine once again as part of a renewal of Pebble's exploration permit. Alaskans were given the opportunity to tell the state Department of Natural Resources directly that Pebble is already costing the state dearly, and the overwhelming message was clear: If we can't trust Pebble to responsibly explore and test in Bristol Bay, how can we trust them to actually mine?

Due to the large volume of comments — many of which offered specific and concrete evidence of harm to the habitat around salmon streams — instead of simply renewing the permit without meaningful safeguards to protect our fish and wildlife the DNR for the first time opted to take an additional 90 days to more closely review the concerns raised by Alaskans. This is a good first step for all who support Bristol Bay and its fishery since DNR has historically approved permits with little hesitation or oversight. It is good to see Alaska's leaders sticking up for the best interests of Alaskans.

For those of us who have been concerned about Pebble for years, here's what we want our leaders, from Juneau to Washington, D.C., to know and recognize.

• The Pebble mine is an economic risk that the state and the people of Alaska do not want nor can afford. In whatever feasible shape it could take, the Pebble mine is the wrong mine in the wrong place with permanent costs that are too great for our region and state.

Bristol Bay salmon support 14,000 jobs and a $1.5 billion-per-year economy. By taking care of the rivers and streams where these salmon lay their eggs, they will continue to support Alaska's commercial and sport fishing businesses, as well as the way of life for thousands of rural Alaskans for generations to come. Pebble's giant size, location at the headwaters of Bristol Bay's two main salmon rivers, and the fact that mine waste would have to be stored on-site forever raises serious red flags. It doesn't make economic sense to risk 14,000 existing long-term jobs for even a couple thousand temporary ones.

• Opposition to the proposed Pebble mine is driven by Alaskans; not outside interests. Alaska business owners, tribes, sportsmen and women, and commercial fishermen are standing up for their way of life and a uniquely Alaska and treasured resource. Our opposition won't wane with changes in the political tides.

• Pebble has a reputation of breaking promises. For more than a decade, we've heard a foreign mining company with zero experience in actually developing a mine make false and unfulfilled promises. First, Pebble promised they'd be "good neighbors" and only pursue the mine if they had the support of local communities, yet they have failed to listen to Bristol Bay communities and businesses at every turn.

Second, Pebble led a media campaign opposing proactive Bristol Bay protections because they "hadn't filed for permits," wanting us to believe they could alter their mine to be safe for salmon when they actually have quietly filed more than 1,000 pages of plans with state and federal regulators. Right now, nothing is stopping them applying for permits.

In 2014, a majority of Alaskans in every voting district in the state — regardless of partisan preference — voted for additional protections for Bristol Bay. Additionally, after more than a million Americans and tens of thousands of Alaskans asked that the Clean Water Act be used to protect our jobs and salmon, Pebble sued the agency that listened to Alaskans and acted to protect Bristol Bay salmon, jobs and culture, and used intimidation and the threat of litigation to silence individual Alaskans that spoke out against the mine.

So no, these are not good neighbors, and they do not have Alaskans' best interest at heart. Any new promises should fall on deaf ears, both in Alaska and in Washington, D.C.

After 10 years of listening and learning about the Pebble mine, a majority of Alaskans in a typically mining-friendly state continue to come to the same

conclusion: The Pebble mine is too risky to our jobs and way of life and we will do whatever we can to stop it. With the recent changes in leadership at the state and federal level, our elected leaders must know and recognize that protecting Bristol Bay is a priority for a majority of Alaskans.

It has never been more important for Alaskans to stand up for the responsible use of our renewable resources, and the jobs and economic support they bring our state.

As Alaskans, we know that ensuring a great future for our state and country isn't relying on a decade's worth of broken promises from a foreign mining company. A great future will be built on supporting hard-working Alaskans who make their living from and live a life based on the wise use and enjoyment of our natural resources. We can keep America and Alaska great by protecting Bristol Bay for future generations.

Brian Kraft *is the owner of Alaska Sportsman's Lodge on the Kvichak River, Alaska Sportsman's Bear Trail Lodge on the Naknek River, Bristol Bay Lodge in the Wood-Tikchik State Park area, and Kodiak Sportsman's Lodge on Kodiak Island.*

The views expressed here are the writer's and are not necessarily endorsed by Alaska Dispatch News, which welcomes a broad range of viewpoints. To submit a piece for consideration, email commentary@alaskadispatch.com. Send submissions shorter than 200 words to letters@alaskadispatch.com.

Supporting Materials #2

ECONOMIC VALUE OF BRISTOL BAY

A National Treasure

Bristol Bay is the world's most valuable wild salmon fishery. It supplies 50% of the world's wild sockeye salmon. Harvesting, processing, and retailing Bristol Bay salmon generates $1.5 billion in annual economic activity across the United States.

Locally, the Bristol Bay salmon fishery supports 14,000 full and part time jobs. Nationally, the Bristol Bay salmon industry supports nearly 20,000 permanent jobs and $500 million in direct annual income.

ECONOMIC IMPACTS OF THE BRISTOL BAY SALMON INDUSTRY IN 2010

ANNUAL AVERAGE EMPLOYMENT	OUTPUT VALUE: $1.5 BILLION	INCOME: $500 MILLION
FISHING & PROCESSING IN BRISTOL BAY		
12,000 seasonal jobs	$390 million	$140 million
SHIPPING, SECONDARY PROCESSING & RETAILING AFTER BRISTOL BAY		
1,000 jobs	$110 million	$40 million
MULTIPLIER IMPACTS IN OTHER INDUSTRIES		
6,800 jobs	$970 million	$320 million

Source: Institute of Social and Economic Research, University of Alaska Anchorage

While in Bristol Bay, sportsmen spend millions and contribute to the employment of lodge owners, guides, pilots, and other staff. Hunting and fishing trips support an additional 850 jobs and add $60 million to the region's economy.

EPA CONFIRMED THE ENORMOUS ECONOMIC VALUE OF THE BRISTOL BAY WATERSHED

In studying the Bristol Bay watershed, EPA highlighted that the Bristol Bay watershed supports several sustainable and robust economic sectors such as:

- commercial, sport, and subsistence fishing
- sport and subsistence hunting
- non-consumptive recreation (e.g. wildlife viewing and tourism)

From these sectors, according to the EPA, **the ecological resources of the Bristol Bay watershed generated nearly $480 million in direct economic expenditures and sales in 2009,** and provided in-region employment for over 14,000 full-and part-time workers.

www.epa.gov/bristolbay/about-bristol-bay

EPA's proposed restrictions help protect Bristol Bay's incredible fisheries and the thousands of jobs that those fisheries support.

FOR MORE INFORMATION CONTACT:

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Bristol Bay NATIVE CORPORATION

Supporting Materials #3

ECONOMIC CERTAINTY NEEDED FOR THE COMMERCIAL AND RECREATIONAL FISHING INDUSTRIES OF BRISTOL BAY

"A number of our members have made extraordinary commitments to sustainable seafood sourcing and are rapidly transitioning their supply chains to verifi ably and responsibly-sourced product. However, this process is only possible to the extent that the fi sheries we depend on - like Bristol Bay - are maintained and protected."

– Food Marketing Institute

"As the prospect of a mine becomes more real, major uncertainty will be created throughout the fi shery, from production through consumption."

– Bristol Bay Regional Seafood Development Association

"The marketing of our seafood is highly dependent on the perception of our watershed as pristine, non-industrial, and undeveloped..."

– Naknek Family Fisheries

"If you do that [mine], you might as well shut down our plant in Naknek."

– Bristol Bay Economic Development Corporation

"Our company is now preparing to embark upon a multi-million dollar effort to construct a state of the art seafood processing facility in Naknek, Alaska. This investment hinges on the expectation of future productive salmon populations and a marketing strategy that these salmon come from the most pristine waters on Earth."

– Silver Bay Seafoods LLC

"Development of Pebble would be the destruction of our Bristol Bay 'brand' of clean water and sustainable wild salmon."

– Wild River Guides Co

"Any perception amongst salmon consumers that a toxin producing industrial mining complex is operating in the heart of our fi shery will damage our marketability..."

– Lindsey Bloom, F/V Rainy Day

NEARLY 13 YEARS OF MISLEADING PROMISES BY PEBBLE TO BEGIN PERMITTING.

PRE-2010
STATEMENTS BY PROJECT PROPONENTS DURING THIS TIME INSINUATED THAT PERMITTING WAS IMMINENT.

"completion in 2005... of permit applications."
– Northern Dynasty Minerals (11.3.2004)

"a full permitting process for a port, access road, and open pit mine all slated to begin in 2006."
– Northern Dynasty Minerals (8.12.2005)

"on schedule to finalize a proposed development plan in 2009 and ... apply for permits in early 2010."
– Northern Dynasty Minerals (10.27.2008)

2010
404(C) PETITIONS TO EPA FROM BRISTOL BAY TRIBES, BBNC, AND LOCAL GROUPS

"preparation to initiate state and federal permitting under the National Environmental Policy Act (NEPA) in 2010."
– Pebble Limited Partnership (3.18.2009)

2011
EPA COMMITMENT TO WATERSHED ASSESSMENT

"preparing to initiate project permitting under the National Environmental Policy Act (NEPA) in 2011."
– Northern Dynasty Minerals (2.1.2010)

2012
FIRST DRAFT OF WATERSHED ASSESSMENT

EPA received 238,000 public comments and held 8 public hearings

PEER REVIEW RND. 1

"PLP intends to enter the permitting phase towards the end of 2012."
– Northern Dynasty Minerals (5.2.2011)

"We have never even said that we're going to [seek a] permit. We may not."
– PLP representative (10.18.2011)

2013
SECOND DRAFT OF WATERSHED ASSESSMENT

EPA received 895,000 public comments

PEER REVIEW RND. 2

"working toward the goal of submitting our initial project description for permitting"
– PLP website (2014–Present)

"hope to have a project to take into permitting this year."
– PLP representative (6.13.2013)

2014
FINAL DRAFT OF WATERSHED ASSESSMENT (1.15.2014)

Notice of Proposed Determination (7.21.2014) following consultation with PLP and the State of Alaska. EPA received 671,000 public comments and held 8 public hearings

"Northern Dynasty will have permitting documentation done and ready to file by the first quarter of 2014"
– Ron Thiessen, CEO of Northern Dynasty Minerals (11.27.2013)

"Pebble will be advancing a program of work in Alaska in 2017 to prepare the project to initiate permitting under the Clean Water Act and National Environmental Policy Act."
– Northern Dynasty Minerals (4.11.2017)

MAJOR MINING COMPANIES LEAVE PEBBLE

2011
Mitsubishi Coroporation divests of the Pebble project, selling 100% of its interest in Northern Dynasty Minerals Ltd., or nearly 10 million shares at $16.15 per share. (2.25.2011)

2013
Anglo American leaves the Pebble Limited Partnership after investing six years and $541 million on the Pebble Project. (9.16.2013)

2014
Rio Tinto divests of its 19% share in the Pebble Project, giving 100% of its stock insterests in Northern Dynasty Minerals Ltd. to local Bristol Bay Charities, who then sell the shares. (4.7.2014)

Updated 4.26.17

Supporting Materials #4

LISA MURKOWSKI
ALASKA

COMMITTEES:
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July 1, 2013

Mr. John Shively
Chief Executive Officer
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Messrs. Shively, Cutifani and Thiessen:

I write today with regard to the Pebble Limited Partnership (PLP)'s timeline for releasing a project description and submitting permit applications for development of the Pebble deposit in the Bristol Bay region of Alaska. As you know, in anticipation of PLP taking these actions, I have been and remain neutral on potential development in this area.

To that end, I have encouraged all stakeholders to withhold judgment until a project description is released, permit applications filed, and all relevant analyses completed. Because of that position, I have opposed the prospect of a preemptive veto of development in Alaska by the Environmental Protection Agency (EPA) under Section 404(c) of the Clean Water Act. Such an action would be based purely upon speculation and conjecture. It would deprive relevant government agencies and all stakeholders of the specifics needed to make informed decisions. But failure to describe the project and submit permit applications has the same effect.

For nearly a decade, Alaskans have been told that these actions are imminent. This has generated a broad range of responses from people throughout the state. Yet today, after years of waiting, it is anxiety, frustration, and confusion that have become the norm in many communities – rather than optimism about the new economic opportunities that responsible development of the Pebble deposit might be able to deliver.

As you know, I have been highly critical of EPA and protective of the due process that any entity considering investment in Alaska should be provided. But your own actions have created uncertainty among the people I represent, and the time has come to tell Alaskans whether and how you plan to proceed. I have addressed this correspondence to all of you, as a group, because your organizations are collectively responsible for these issues. You are also the only ones in a position to remedy them.

At least as far back as November 3, 2004, Northern Dynasty Minerals asserted that the submission of permit applications was imminent, stating that the company expected "completion in 2005 of ... permit

EPA-9698-0006084

applications."[1] On August 12, 2005, another statement was issued, claiming that "a full permitting process for a port, access road and open pit mine [were] all slated to begin in 2006."[2]

On October 27, 2008, Alaskans were assured that those seeking to develop the Pebble deposit were "on schedule to finalize a proposed development plan in 2009 and, following input from project stakeholders, apply for permits in early 2010."[3] Six months later, on March 18, 2009, this timeline was reaffirmed, with an announcement that PLP was in the midst of "preparation to initiate state and federal permitting under the National Environmental Policy Act (NEPA) in 2010."[4]

On February 1, 2010, Alaskans were told that PLP was "preparing to initiate project permitting under the National Environmental Policy Act (NEPA) in 2011."[5] Yet on May 2, 2011, came the announcement that PLP intended "to enter the permitting phase towards the end of 2012."[6] On October 18, 2011, came another revision, as Alaskans were told by a PLP representative that "We have never even said that we're going to [seek a] permit. We may not."[7]

Most recently, on June 13, 2013, a PLP representative said that you "hope to have a project to take into permitting this year."[8] And in what seems representative of the confusing message being communicated to Alaskans, at the time of this letter, a PLP company website still asserts that you are planning on "initiating permitting by late 2012."[9]

By failing to take the next step – by failing to decide whether to formally describe the project and seek permits for it – PLP has created a vacuum that EPA has now filled with not one, not two, but three hypothetical mine scenarios contained in its so-called Watershed Assessment.

So I have a simple request: please establish a timeline and adhere to it. Clarity and certainty over how you intend to proceed is in the best interest of all who are involved with – and all who could be affected by – development of the Pebble deposit.

Sincerely,

Lisa Murkowski
United States Senator

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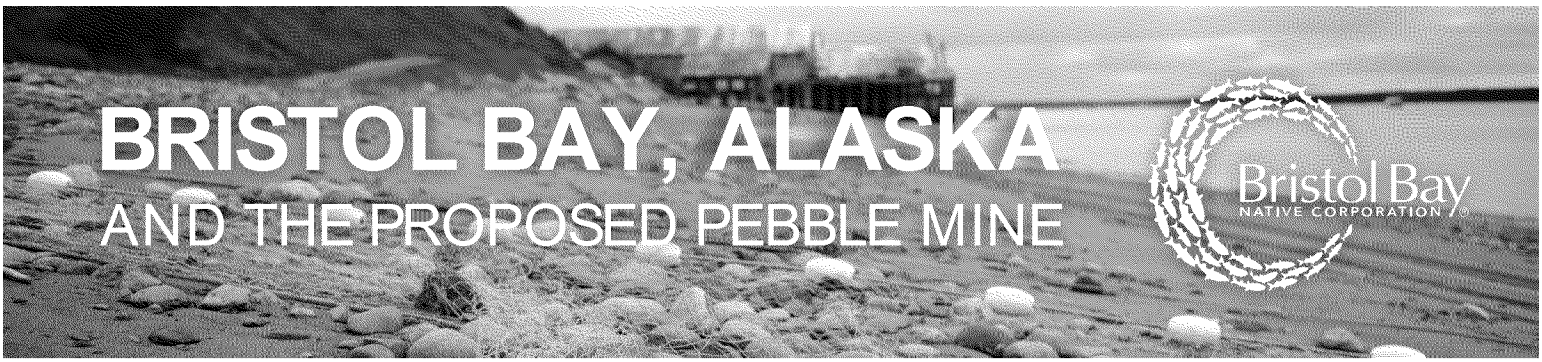
[1] "Northern Dynasty Secures Listing With Symbol 'NAK' on the American Stock Exchange," Northern Dynasty Minerals Ltd. press release, November 3, 2004, on the Northern Dynasty Minerals Ltd. website, http://bit.ly/1cmyd03, accessed June 26, 2013.
[2] "Northern Dynasty Welcomes New Director to Board," Northern Dynasty Minerals Ltd. press release, August 12, 2005, on the Northern Dynasty Minerals Ltd. website, http://bit.ly/138vpW1, accessed June 26, 2013.
[3] "Successful 2008 Study Program Continues At Alaska's Pebble Project," Northern Dynasty Minerals Ltd. press release, October 27, 2008, on the Northern Dynasty Minerals Ltd. website, http://bit.ly/10Vbp7S, accessed June 26, 2013.
[4] "Pebble 2009 Work Plan to Focus on Finalizing Prefeasibility Study," Pebble Limited Partnership press release, March 18, 2009, on the Pebble Limited Partnership website, http://bit.ly/120vTWM, accessed June 26, 2013.
[5] "Updated Mineral Resource Estimate Confirms the Pebble Project as North America's Most Important New Copper-Gold-Molybdenum Development Opportunity," Northern Dynasty Minerals Ltd. press release, February 1, 2010, on the Northern Dynasty Minerals Ltd. website, http://bit.ly/14a3MbK, accessed June 26, 2013.
[6] "$91 million work program underway to prepare Pebble Project for permitting in 2012," Northern Dynasty Minerals Ltd. press release, May 2, 2011, on the Northern Dynasty Minerals Ltd. website, http://bit.ly/15FP3Du, accessed June 26, 2013.
[7] Lempinen, Edward W., "Proposed Pebble Mine Has Alaskan Community Focused on Critical Science and Policy Issues," AAAS news release, October 18, 2011, on the AAAS website, http://bit.ly/nhZqnW, accessed June 26, 2013.
[8] Shively, John. Interview by Monica Trauzzi, OnPoint, E&ETV, "Bristol Bay: Pebble mine's Shively discusses future of project, EPA's watershed assessment," June 13, 2013, online, http://bit.ly/16zAHXq, accessed June 26, 2013.
[9] AngloAmerican, "Case studies: Pebble partnership," http://bit.ly/19tRNeA, accessed June 26, 2013.

Supporting Materials #5



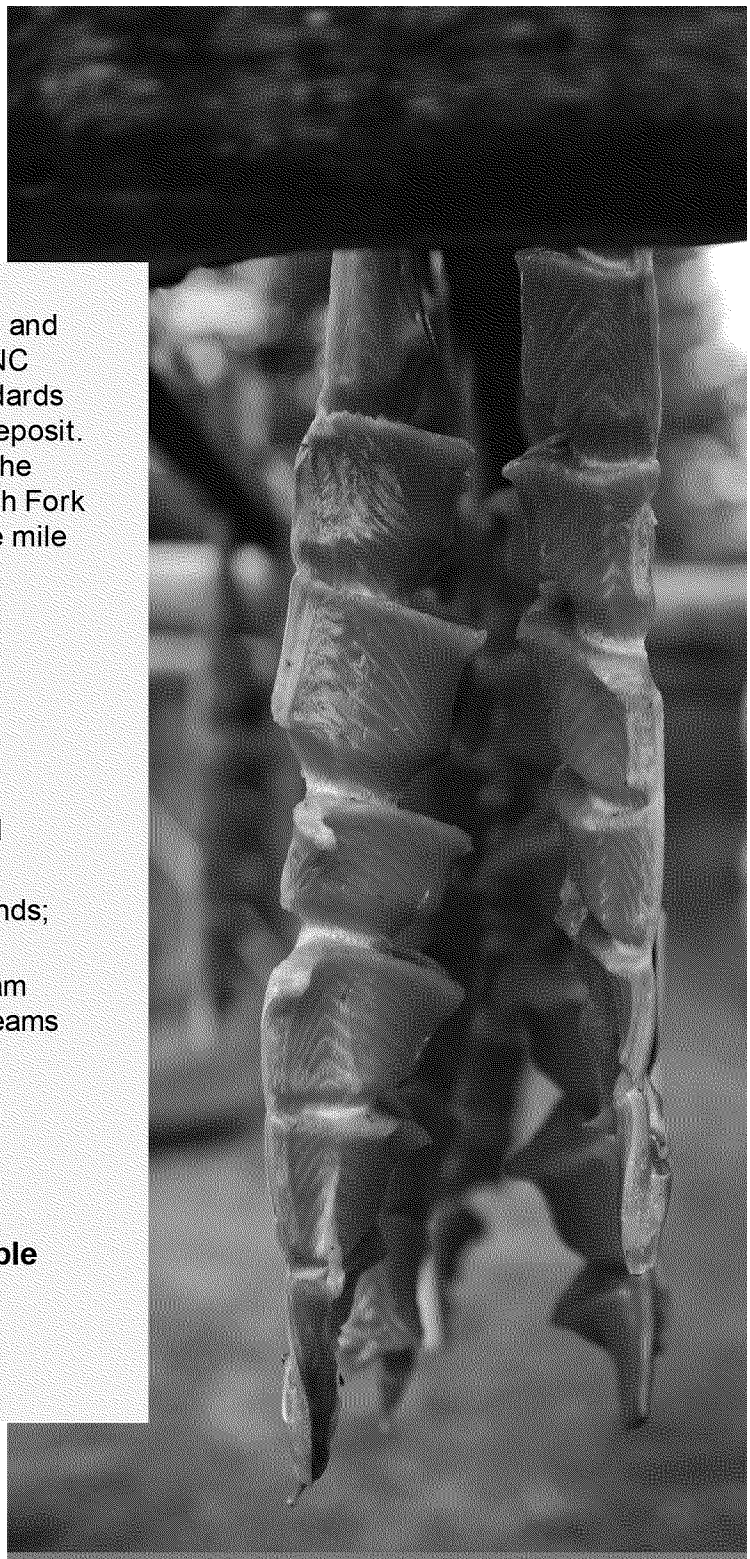
PEBBLE OPPOSITION TIMELINE:

Protecting the World's Largest Sockeye Salmon Fishery

The Pebble deposit is a vast copper, gold and molybdenum deposit that lies at the headwaters of the Nushagak and Kvichak river systems north of Lake Iliamna in the Bristol Bay region. If developed, Pebble has the potential to be the largest open pit mine in North America and would pose significant risks to the region's commercial and subsistence salmon fisheries.

2001	Northern Dynasty Minerals (NDM) acquires the Pebble claims and begins exploration activities.
2004 – 2013	The Pebble Limited Partnership makes mulitple statements that the permitting process is imminent.
2010	Tribes, BBNC, and other stakeholders petition the U.S. Environmental Protection Agency (EPA) to initiate action under Section 404(c) of the Clean Water Act to protect southwest Alaska waters and salmon from large-scale hard-rock mining of the Pebble mineral deposit.
2010 – 2013	EPA collects and assembles all available information regarding Bristol Bay's watersheds, potential mining plans, and the likely impacts of mining.
January 2014	EPA's final Bristol Bay Watershed Assessment confirms that the streams, rivers, wetlands, lakes and other waters near the Pebble deposit and the salmon fisheries these waters support constitute unique and valuable resources that mining the deposit could put at risk.
February 2014	EPA formally initiates a Section 404(c) review to determine whether and how to use its authority to protect Bristol Bay waters and salmon.
July 2014	EPA proposes restrictions that balance the protection of salmon and other subsistence resources with responsible mining development. EPA does not propose a veto of the Pebble project.
Summer 2014	EPA accepts comments on proposed restrictions during a 60-day public comment period. EPA holds 7 public hearings throughout Alaska.
2014 to present	The Pebble Limited Partnership says they're working toward the goal of submitting an initial project description for permitting, meanwhile suing the EPA three times to halt the EPA's work of balancing the protection of salmon and subsistence resources with responsible mining development.
April 2017	The Pebble Limited Partnership says it is preparing to initiate permitting this year. The Proposed Determination remains in place, but the proposed restrictions have not been finalized by EPA.

So what exactly has EPA proposed in Bristol Bay?



To protect Bristol Bay and provide economic, social, and cultural certainty to the residents of our region, BBNC asked EPA to proactively impose performance standards for large-scale mining development of the Pebble deposit. EPA has proposed the following restrictions within the drainage areas of the North Fork Koktuli River, South Fork Koktuli River, and Upper Talarik Creek, a 268 square mile area designated as the "disposal site."

Discharges from the Pebble deposit are prohibited within the disposal site if they will eliminate:

- More than 5 miles of streams documented as anadromous;
- More than 19 miles of streams not documented as anadromous;
- More than 1,100 acres of wetlands, lakes or ponds;

Discharges are also prohibited if they will alter stream flows by more than 20% in more than 9 miles of streams documented as anadromous.

For the good of the Bristol Bay region, EPA must keep the Proposed Determination in place help to inform the permitting process and ensure protection of the region's incredible salmon resource.

FOR MORE INFORMATION CONTACT:

Daniel L. Cheyette
(907) 278-3602
dcheyette@bbnc.net

– OR –

Carmell Engebretson
(907) 278-3602
cengebretson@bbnc.net

Bristol Bay
NATIVE CORPORATION

Supporting Materials #6

BRISTOL BAY, ALASKA
AND THE PROPOSED PEBBLE MINE

Bristol Bay
NATIVE CORPORATION®

Protecting the World's Largest Sockeye Salmon Fishery and 20,000 Sustainable Jobs Nationwide

EPA's Proposed Determination Brings Economic and Cultural Certainty to Our Region

The Pebble mineral deposit lies at the headwaters of the Nushagak and Kvichak river systems. These rivers support the world's most prolific sockeye salmon runs, which residents of the region have relied on for thousands of years for subsistence, and for the last 130+ years as part of a 1.5 billion dollar commercial fishery.

Bristol Bay Native Corporation (BBNC), along with nine Bristol Bay federally-recognized tribes, Bristol Bay Native Association, other tribal organizations, and many groups and individuals petitioned the United States Environmental Protection Agency (EPA) in 2010 to initiate action under Section 404(c) of the Clean Water Act to protect fisheries and waters from large-scale hard rock mining of the Pebble deposit. EPA spent the following three years assembling all available information regarding the watersheds and the potential impacts of large-scale mining.

In January 2014, EPA issued the final Bristol Bay Watershed Assessment which confirmed what residents of the region already know: the streams, rivers, wetlands, lakes, and other waters near the Pebble deposit and the salmon fisheries these waters support, are unique and valuable resources — resources that would be at risk if the Pebble deposit were to be mined. The assessment concluded that development of the Pebble deposit could destroy up to 151 km (94 miles) of streams, eliminate up to 18 km^2 (4,900 acres) of wetlands, and require the construction of up to three waste impoundments that cover an additional 50 km^2 (12,355 acres). In more general terms, the assessment concluded that mining the Pebble deposit would pose an enormous threat to the region's salmon fisheries and the people and communities that rely on those fisheries.

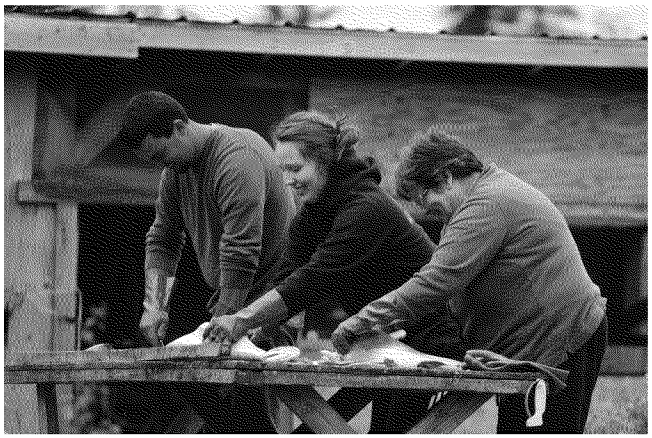
(continued)

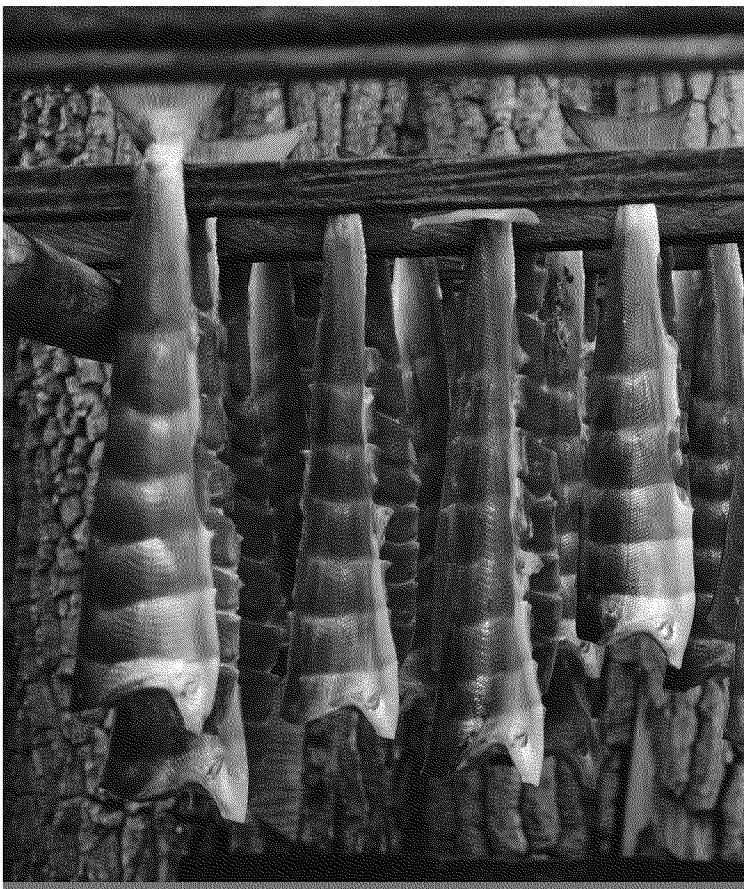
(continued)

Following consultation with the Army Corps, Pebble Limited Partnership, and the State of Alaska, in July of 2014 EPA announced proposed restrictions that are protective of the region's incredible salmon resource. EPA held then held a 60-day comment period on its Proposed Determination and seven public hearings throughout Alaska, receiving more than 670,000 comments, 99% of which supported the Proposed Determination. EPA's proposed restrictions did not veto mining or the Pebble project and has not prevented the company from initiating the permitting process.

The people of the Bristol Bay region have endured the uncertainty of Pebble mine's potential development for more than a decade. Since 2004, the company has claimed the permitting process is eminent but has never submitted a permit application. In 2017, the company has repeated its promise to initiate permitting this year. The EPA should keep the Proposed Determination in place as the Pebble Mine enters permitting. Keeping the Proposed Determination in place to help inform the permitting process will maintain the EPA's important role in protecting this world class salmon fishery and economic powerhouse.

For the good of the Bristol Bay region, the EPA should keep the Proposed Determination in place help to inform the permitting process and ensure protection of the region's incredible salmon resource.





EPA's Proposed Determination includes these restrictions:

Discharges from the Pebble deposit within the disposal site are prohibited if they will eliminate:

- More than 5 miles of streams documented as anadromous;
- More than 19 miles of streams not documented as anadromous;
- More than 1,100 acres of wetlands, lakes or ponds;

Discharges are also prohibited if they will alter stream f lows by more than 20% in more than 9 miles of streams documented as anadromous.

FOR MORE INFORMATION CONTACT:

Daniel L. Cheyette
Bristol Bay Native Corporation
(907) 278-3602 // dcheyette@bbnc.net

Carmell Engebretson
Bristol Bay Native Corporation
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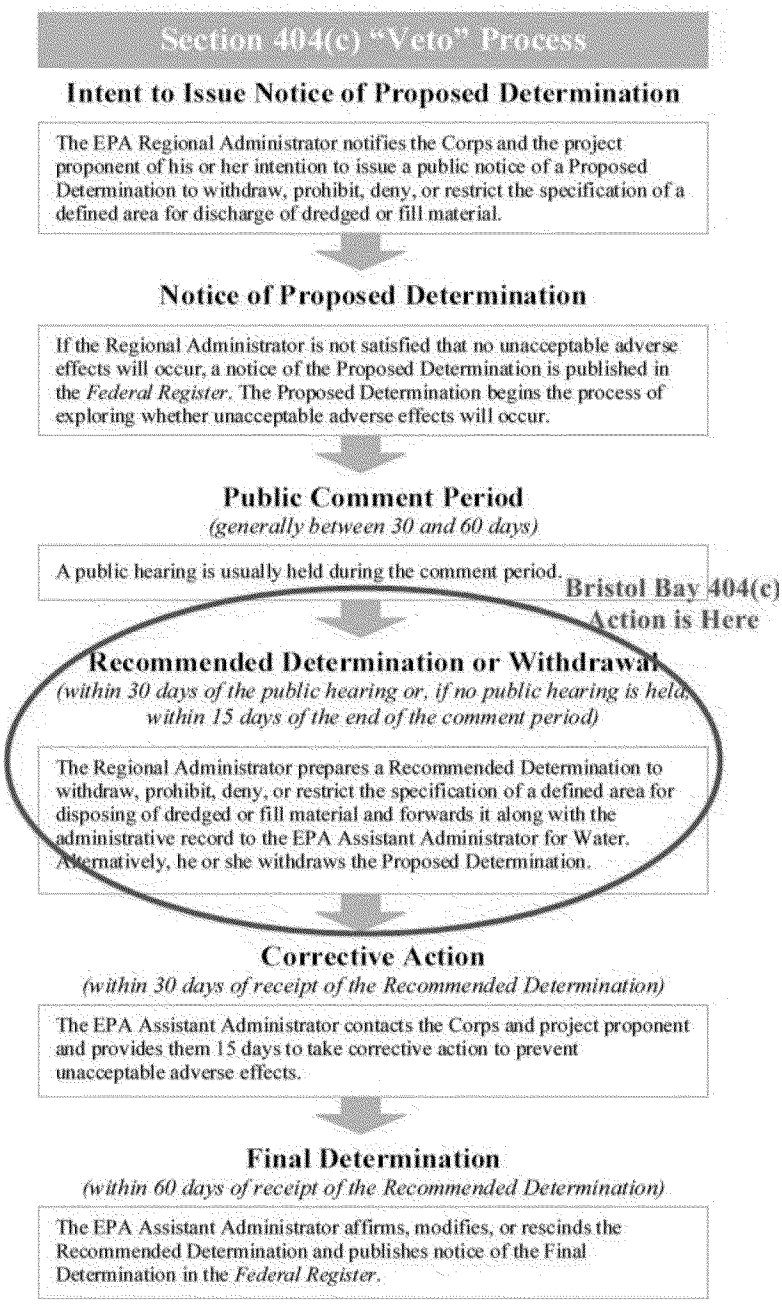
Bristol Bay NATIVE CORPORATION ®

Supporting Materials #7

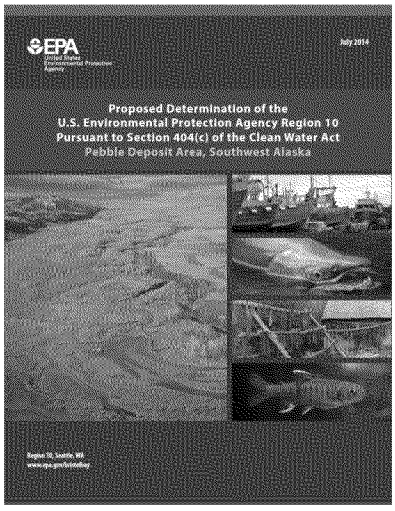
Withdrawal Of The Pebble 404(c) Proposed Determination On The Current Record Is Not Supported By Fact or Law



Source: EPA, Veto Authority Factsheet, https://www.epa.gov/cwa-404/clean-water-act-section-404c-veto-authority

The Clean Water Act Section 404(c) authorizes EPA to restrict, prohibit, deny, or withdraw the use of an area as a disposal site for dredged or fill material if the discharge will have unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

Following consultation with the Army Corps and Pebble Limited Partnership, EPA issued a Proposed Determination in 2014. It then held a 60-day public comment period with seven public hearings throughout Alaska, receiving **more than 670,000 comments, 99% of which supported the PD.**



At this point, EPA may prepare a Recommended Determination, withdraw the Proposed Determination, or suspend the process until a 404 permit application is submitted.[1] This decision is governed by procedures in the 404(c) regulations at 40 C.F.R. Part 231 and EPA precedent.

Required Process to Withdraw a Proposed Determination

- To withdraw the Proposed Determination, the EPA Regional Administrator must notify the Administrator of his intent to do so, and must send a copy of this notice to all persons who commented on the Proposed Determination or participated at any hearing on it.[2] Persons who receive notice can submit recommendations concerning whether the Administrator should review the withdrawal.[3]
- If the EPA Administrator does not review the withdrawal, the Regional Administrator gives public notice of the withdrawal, and this is the agency final action.[4] If the Administrator chooses to review the withdrawal (which must be done within 10 days of its receipt), the Administrator's determination is based on a review of

the record and is the final agency action.[5] The final determination on the withdrawal decision must "describe the satisfactory corrective action, if any, make findings, and state the reasons for the final determination."[6]

- A decision to withdraw a Proposed Determination is a final agency action subject to judicial review.[7]

EPA Precedent – The Kuparuk Example

The EPA has initiated the 404(c) process 29 times, finalized the 404(c) action with a Final Determination in 13 of those instances, and withdrawn a Proposed Determination only once.[8] In that instance – involving the Kuparuk River Unit on Alaska's North Slope – the EPA withdrawal notice described seven changes to the project that the agency believed reduced potential impacts to below the "unacceptable adverse effects" threshold, "represent[ed] a significant reduction in scope," and therefore justified withdrawal of the Proposed Determination.[9]

Kuparuk River Unit, North Slope Alaska –Specific Project Revisions Necessary to Warrant Withdraw of Proposed Determination	
Revised Configuration	To fill less wetland acreage (17.9 acres) than original project design (21.5 acres)
Revised Pad Location	To higher, drier, less diverse tundra that is less valuable as waterfowl and shorebird habitat than original design
Revised Road Route	To traverse drier, less valuable tundra ridges than original design
Revised Road Route	To further upslope in the drainage basin (from 800 to 3,300 feet) to intercept less drainage flowing into Arctophila Lake and pose less of a hazard to the lake
Revised Road Route	To ½ mile further away from tundra swan nesting site on Arctophila Lake
Revised Road Length	To not extend ½ mile further to the east to avoid brant and caribou movement
Revised Pad Location	To 1 mile from tundra swan nesting area on Arctophila Lake, as compared to less than 1,000 feet from the nesting area in the original design

In five instances in which the EPA issued a Proposed Determination but neither withdrew it nor finalized it, the underlying project was entirely or mostly tabled and the 404(c) process was either never completed or – in the one instance of the Pamo Dam in California – formally indefinitely suspended.[10]

Conclusion: A Proposed Determination should only be withdrawn *if and only if* it is based on *clearly articulated project changes that justify rescission* of the "unacceptable adverse effect" finding made in the Proposed Determination. As of now, there is no permit application from Pebble to show project changes. Nothing has changed from the range of mine scenarios evaluated in the Proposed Determination concerning the mining of Pebble deposit. Given that any mining of the deposit would require "similar mine components, support facilities, and operational features" as those in Pebble's preliminary mine plan which was analyzed by EPA,[11] any pre-permit application reconsideration of the Proposed Determination is not supported by law. Moreover, opening a new administrative action on the Proposed Determination would be a significant distraction from what should be a robust permit process focused on Pebble's actual mine plan.

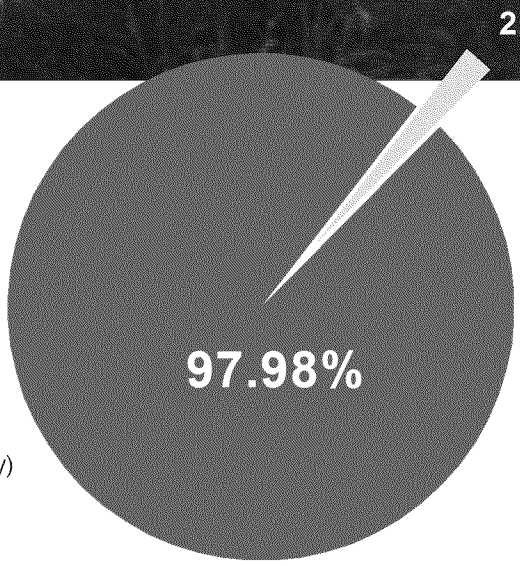
[1] 40 C.F.R. § 231.5(a). *See* 52 Fed. Reg. 49,082 (Dec. 29, 1987) (indefinitely suspending 404(c) proceeding for the Pamo Dam).
[2] 40 C.F.R. § 231.5(c).
[3] 40 C.F.R. § 231.5(c).
[4] 40 C.F.R. § 231.5(c)(1).
[5] 40 C.F.R. § 231.5(c)(2).
[6] 40 C.F.R. § 231.6.
[7] 40 C.F.R. § 231.5(c)(1).
[8] *See*, https://www.epa.gov/cwa-404/chronology-404c-actions (13 completed 404(c) actions, 11 completed during Republican administrations).
[9] 56 Fed. Reg. 22,161 (May 14, 1991).
[10] *See*, Proposed Determinations for Pamo Dam, CA (52 Fed. Reg. 49,082), St. Mary's River, MD (48 Fed. Reg. 41,810), Annandale Plantation, SC (49 Fed. Reg. 30,111), Leonard Pond, MA (54 Fed. Reg. 35,927), and Nashua-Hudson Highway, NH (59 Fed. Reg. 53,791). For all other 404(c) initiated actions, EPA's concerns were allayed during consultation with permit applicant and a Proposed Determination was never issued.
[11] EPA, Proposed Determination, Pebble Deposit Area, Southwest Alaska (July 2014), at ES-2.

Supporting Materials #8

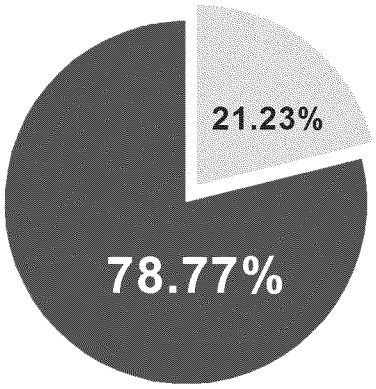
Overwhelming Public SuPPOrt fOr ePA ActiOn tO PrOtect briStOl bAy[1]

Analysis of 1.1 Million Public Comments & Testimony on EPA's Bristol Bay Watershed Assessment

BRISTOL BAY REGION COMMENTS & TESTIMONY ON EPA'S BRISTOL BAY WATERSHED ASSESSMENT



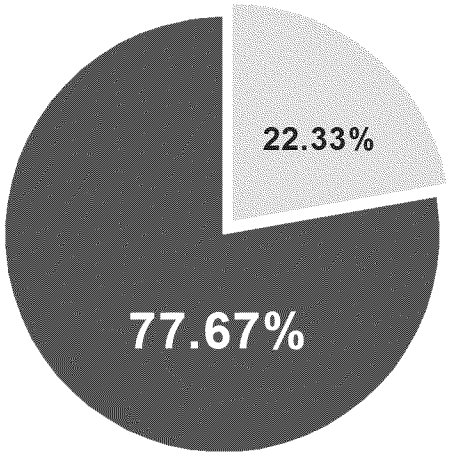
- Bristol Bay comments supportive of EPA action (1,795 comments & testimony)
- Bristol Bay comments not supportive of EPA action (37 comments & testimony)



ALASKA PUBLIC COMMENTS & TESTIMONY ON EPA'S BRISTOL BAY WATERSHED ASSESSMENT

- Alaska comments supportive of EPA action (6,500 comments & testimony)
- Alaska comments not supportive of EPA action (1,752 comments & testimony)

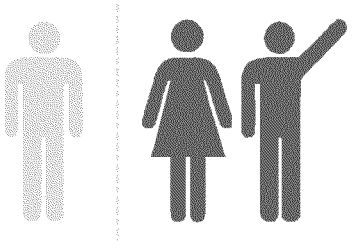
1.1 MILLION PUBLIC COMMENTS & TESTIMONY ON EPA'S BRISTOL BAY WATERSHED ASSESSMENT



- Supportive of EPA action (879,070 letters, petition signatures, & public testimony)
- Not supportive of EPA action (252,686 letters, petition signatures, & public testimony)

Statewide polling shows:

ONLY 1 IN 3 ALASKANS HAS A fAvORABLE vIEW Of THE PEBBLE PROjECT.



1. Numbers compiled from an analysis of all public hearing testimony, unique public comments, mass mailings, and petitions available for review on the EPA Bristol Bay Watershed Assessment dockets EPA-HQ-ORD-2012-0276 and EPA-HQ-ORD-2013-0189 available at www.regulations.gov.

For additional information: Daniel Cheyette, Bristol Bay Native Corporation, (907) 278-3602

Supporting Materials #9

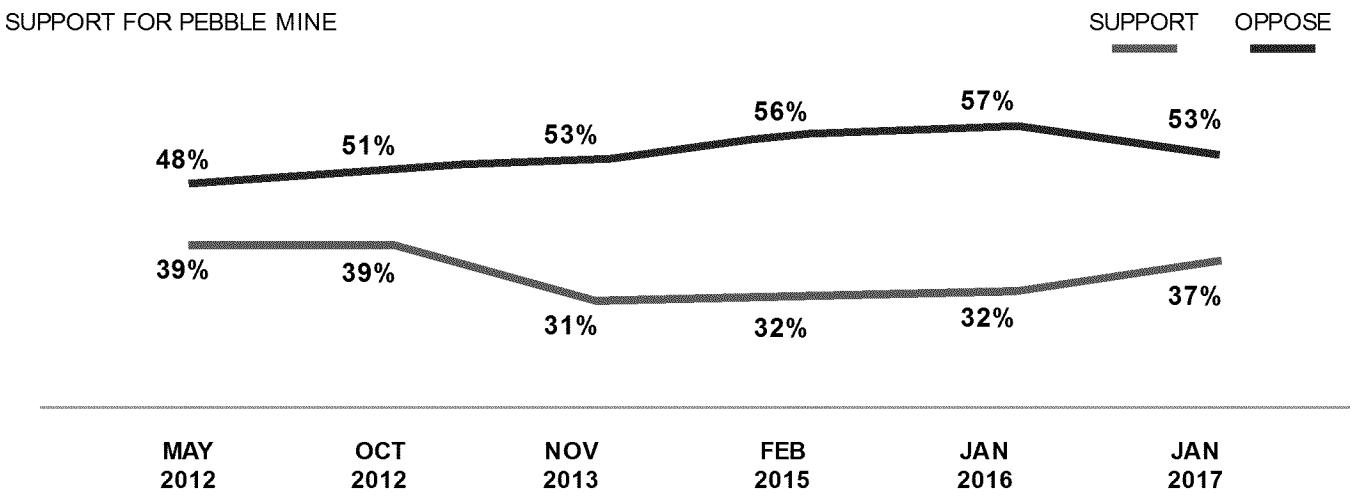
ALASKANS AND BRISTOL BAY RESIDENTS OVERWHELMINGLY SUPPORT EPA'S PROPOSED DETERMINATION

EPA PUBLIC HEARINGS

	TOTAL ATTENDANCE	COMMENTS SUPPORTING EPA	COMMENTS NOT SUPPORTING EPA
Anchorage	500	72	39
Nondalton	60	19	1
New Stuyahok	73	16	0
Dillingham	143	64	8
Kokanhok	24	3	4
Iliamna	75	30	15
Iguigig	34	16	3
TOTAL	**909**	**220**	**70**
		75.9%	**24.1%**
BRISTOL BAY REGION ONLY		**82.7%**	**17.3%**

EPA held 7 Public Hearings on its Proposed Determination from August 12–15, 2014 in Anchorage, New Stuyahok, Nondalton Kokhanok, Dillingham, Iliamna, and Iguigig.

ALASKANS HAVE CONSISTENTLY OPPOSED THE DEVELOPMENT OF PEBBLE MINE



EPA also held a 60-day public comment period on the proposed determination and received more than 670,000 comments nationally, 99% of which supported the proposed determination.

SUPPORT PROPOSED DETERMINATION NATIONALLY

EXAMPLES OF LOCAL GROUPS OPPOSING PEBBLE MINE

BRISTOL BAY NATIVE CORPORATION

COMMERCIAL FISHERMEN FOR BRISTOL BAY

Representing over 100 commercial fishing groups–in Alaska and beyond.

UNITED TRIBES OF BRISTOL BAY

A tribally chartered consortium with 14 member tribal governments from Bristol Bay.

FEDERALLY- RECOGNIZED TRIBES IN BRISTOL BAY

BRISTOL BAY TRIBAL GOVERNMENTS AND VILLAGE CORPORATIONS

BRISTOL BAY NATIVE ASSOCIATION

NUNAMTA AULUKESTAI

A non-profit that includes 10 tribal corporations and 10 tribal governments.

KATMAI SERVICE PROVIDERS

Representing over 50 fishing and tourism businesses in the Bristol Bay region.

BRISTOL BAY ECONOMIC DEVELOPMENT CORPORATION

CHEFS, JEWELERS & RELIGIOUS ORGANZIATIONS

Hundreds of chefs, more than a dozen jewelers, and many religious organizations.

HUNTING & FISHING ORGANIZATIONS

More than 150 Alaska fishing and hunting businesses and organizations representing hunters and anglers world-wide.

Supporting Materials #10

April 25, 2017

President Donald J. Trump
The White House
1600 Pennsylvania Avenue
Washington, DC 20500-0001

Cc: Scott Pruitt, Administrator, Environmental Protection Agency
Ryan Zinke, Secretary, Department of Interior
Lisa Murkowski, U.S. Senator from Alaska
Dan Sullivan, U.S. Senator from Alaska
Don Young, U.S. Representative from Alaska

President Trump,

As organizations and companies that represent millions of sportsmen and women and outdoor enthusiasts across all 50 states we write to ask you simply to stop efforts to develop the proposed Pebble Mine in Bristol Bay, Alaska.

For many of us, stopping Pebble Mine is and has been a top priority for our organizations and our members or customers for more than ten years.

The late Senator Ted Stevens called this project "the wrong mine in the wrong place." For over a decade an unprecedented coalition of native tribes, commercial fishermen, anglers and hunters, conservationists, religious groups, restaurateurs, jewelers, investment firms, and outdoor enthusiasts have been fighting this foreign-owned mine proposal, and have worked to gain protections for the Bristol Bay region. Millions of Americans eat, fish for, or make their living off of Bristol Bay's wild salmon.

Our voices have been and will continue to be loud and persistent. Over 1,150 sport fishing and hunting groups and businesses have asked for Bristol Bay to be protected. Hunters and anglers were strongly represented in the over 1.5 million public comments asking the federal government to shield Bristol Bay from the dangers of the proposed Pebble Mine during the multi-year Bristol Bay Watershed Assessment and subsequent Clean Water Act process. This transparent and participatory process resulted in the set of common-sense restrictions on disposal of mine waste that any mine development would need to meet if it pursued construction of a mine in this incredibly productive and valuable place.

Bristol Bay supports one of the planet's best remaining salmon fisheries, which at an average run of 37.5 million fish, produces 46% of the world's sockeye salmon. On top of the incredible number of sockeye salmon, the watershed supports Chinook salmon, Coho salmon, rainbow trout, grayling, and char, all of which are prized sport fish that result in more than 29,000 fishing trips per year. In addition to world-class fisheries, the area is also home to high densities of brown bear, moose, caribou, waterfowl, and

EPA-9698-0006101

ptarmigan that attract hunters from around the world.

From an economic perspective, sportfishing, hunting, and eco-tourism alone generate more than $160 million in local economic activity, creating nearly 2,500 local, sustainable jobs. In contrast, Northern Dynasty Minerals, the foreign-owned company behind the Pebble Mine, would create only about 1,000 temporary mining jobs while threatening 14,000 American commercial and recreational fishery jobs in a $1.5 billion annual salmon fishery that can last indefinitely.

We are concerned over reports and speculation that Environmental Protection Agency (EPA) Administrator Pruitt is working to settle an outstanding lawsuit with Pebble's promoters. Alarmingly, we are hearing that such a settlement could involve tossing aside not only the work done under the Clean Water Act, but also the entire contents of the Bristol Bay Watershed Assessment (BBWA). The BBWA is the scientific record and a sound basis for making informed decisions on the future of Bristol Bay. It must remain available to guide and inform regulators who will be tasked with reviewing permit applications if submitted.

Protecting Bristol Bay puts Alaskans and Americans first. Dismantling the work done by the EPA, erasing years of study to show what makes Bristol Bay unique and how the risks to it from mining of the type and of the scale being proposed would impact the region, and completely disregarding the majority opinion of Alaskans, as well as the myriad sportsmen and women from around the nation…that's putting foreign corporate profits first.

Simply put, places like Bristol Bay are increasingly rare and extremely valuable. Millions of our members and customers across this country are counting on you to stand with us in stopping this mine in this place.

Respectfully,

National Organizations

American Fly Fishing Trade Association
Ben Bulis – President and CEO
Bozeman, MT

American Sportfishing Association
Scott B. Gudes – V.P., Government Affairs
Alexandria, VA

Backcountry Hunters & Anglers
Land Tawney – Executive Director
Missoula, MT

Bear Trust International
Melissa Reynolds-Hoagland, PhD – Executive Director
Missoula, MT

Campfire Club of America
Leonard J. Vallender – Conservation Chair
Chappaqua, NY

Conservation Force
John J. Jackson, III – Chairman and President
Metairie, LA

Dallas Safari Club
Ben Carter – Executive Director
Dallas, TX

Delta Watefowl Foundation
John L. Devney – Vice President, U.S. Policy
Bismarck, ND

Fly Fishers International
Len Zickler – President and CEO
Livingston, MT

National Wildlife Federation
Adam Kolton – Sr. VP, Congressional & Federal Affairs
Reston, VA

Orion – The Hunter's Institute
Pat Hudak - President
Trumansburg, NY

Pope and Young Club
Joe Bell – Executive Director
Chatfield, MN

Quality Deer Management Association
Kip Adams – Director of Education & Outreach
Bogart, GA

Recycled Fish
Ben R. Leal, III – Executive Director
Altoona, IA

Theodore Roosevelt Conservation Partnership
Whit Fosburgh – President and CEO
Washington, DC

Trout Unlimited
Chris Wood – President and CEO
Arlington, VA

Wildlife Forever
Doug Grann – President and CEO
Brooklyn Center, MN

Alaska

Alaska Alpine Adventures
Anchorage, Alaska

Alaska Fly Anglers, Inc
Soldotna, Alaska

Alaska's Bearclaw Lodge
Aleknagik, AK

Alaska's Enchanted Lake Lodge
King Salmon, Alaska

Alaska's Boardwalk Lodge
Thorne Bay, AK

Alaska's Fishing Unlimited, Inc.
Port Alsworth, AK

Alaska Sportsman's Lodge
Igiugig, AK

Alaskan Eagle Cruises
Gustavus, AK

Alaska Salmon Camp Inc
Dillingham, AK

Alaska Rainbow Lodge
King Salmon, Alaska

Alaska West
Quinhagok, AK

Aleutian Rivers Angling
Nelson Lagoon, AK

Angler's Alibi
King Salmon, Alaska

Arctic Rivers Guide & Booking Service
Kodiak, AK

Arctic Wild, LLC
Fairbanks, AK

Baranof Wilderness Lodge
Sitka, AK

Bear Trail Lodge
King Salmon, Alaska

EPA-9698-0006103

Beyond Boundaries Expeditions
Sitka, AK

Blue Fly Bed & Breakfast and Guide Service
King Salmon, Alaska

Blue Mountain Lodge
Becharof Lake, AK

Brightwater Alaska, Inc
Anchorage, Alaska

Bristol Bay Lodge
Aleknagik, AK

Brooks Lodge
Anchorage, AK

Copper River Lodge
Illiamna Lake, AK

Crystal Creek Lodge
King Salmon, AK

EPIC Angling & Adventure
King Salmon, AK

Fish Alaska Magazine
Anchorage, Alaska

Frigate Adventure Travel
King Salmon, AK

Frontier River Guides
Anchorage, Alaska

Grizzly Skins of Alaska
King Salmon, AK

Grosvenor Lodge
Anchorage, AK

Hodges Outfitters
Anchorage, AK

Iliamna River Lodge, LLC
Iliamna, AK

Jake's Nushagak Salmon Camp
Dillingham, AK

Juneau Chapter (Trout Unlimited)
Juneau, AK

Katmai Air
Anchorage, AK

Kvichak Lodge
Igiugig, AK

Kulik Lodge
Anchorage, AK

Lipservice Fishing Charters
Wasilla, Alaska

Merlin Outfitters
Trapper Creek, AK

Mission Lodge
Aleknagik, Alaska

Mountain View Sports
Anchorage, AK

No See Um Lodge, Inc
King Salmon, Alaska

Painter Creek Lodge
Anchorage, AK

Quartz Creek Lodge
Kodiak, AK

Rainbow River Aviation, LLC
Iliamna, AK

Rainbow River Lodge, LLC
Iliamna, AK

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Royal Coachman Lodge
Dillingham, AK

Upstream Marketing
Palmer, AK

Rapids Camp Lodge
King Salmon, AK

Red Quill Lodge
Iliamna, Alaska

Royal Wolf Lodge
Anchorage, Alaska

Roe Hard Guide Service
Wasilla, Alaska

Sea Hawk Air Dispatch
Kodiak, AK

Skull Creek Guiding
Dillingham, AK

Southeast Alaska Guiding
Douglas, AK

TakeDown Sportfishing
Soldotna, AK

Talaheim Lodge
Anchorage, AK

Tikchik Narrows Lodge
Wood Tikchik State Park, AK

Togiak River Lodge, Inc.
Togiak, AK

Upstream Marketing
Palmer, Alaska

Western Alaska Sportfishing, Inc.
Upper Nushagak River, AK

Wilderness Place Lodge
Anchorage, AK

Wild on the Fly
Wasilla, AK

Wild River Guide Co.
Dillingham, Alaska

Women's Fly Fishing
Anchorage, AK

Arizona

Arizona State Council (Trout Unlimited)
Payson, AZ

California

Bob Marriott's Fly Fishing Store
Fullerton, CA

California Fly Fisher magazine
Truckee, CA

California State Council (Trout Unlimited)
Carmichael, CA

Fisherman Eyewear
Hollister, CA

Fly Fishers of Davis (Fly Fishers International)
Davis, CA

The Fly Shop, Inc.
Redding, CA

Golden West Women Flyfishers
San Francisco, CA

Hatch Outdoors
Vista, CA

John Muir Chapter of Trout Unlimited
East Bay, California

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Kiene's American Fly Fishing Co.
Sacramento, CA

KUIU, Inc.
Dixon, CA

Mission Peak Fly Anglers (Fly Fishers Int'l)
Fremont, CA

Northern CA Council (Fly Fishers Int'l)
Davis, CA

Okuma Fishing Tackle
Ontario, CA

Patagonia, Inc.
Ventura, CA

Roessler Wine Cellars
Sonoma, CA

Savage Gear USA
Ontario, CA

Sports Afield magazine
Huntington Beach, CA

Tundra River Adventures
Woodland, CA

The Venturing Angler
Davenport, CA

Water Wolf HD
Ontario, CA

Wild on the Fly
Fullerton, CA

Colorado

Anasazi Angler, Inc.
Hesperus, CO

Angling Trade Magazine
Boulder, CO

Boulder Flycasters (Trout Unlimited)
Boulder, CO

Collegiate Peaks Chapter of Trout Unlimited
Salida, CO

Crystal Fly Shop
Carbondale, CO

Dvorak Expeditions
Nathrop, CO

Fishpond, LLC
Denver, CO

Hog Island Boat Works
Steamboat Springs, CO

Rep Your Water
Lafayette, CO

Rocky Mountain Flycasters (Trout Unlimited)
Loveland, Colorado

St. Vrain Anglers (Trout Unlimited)
Colorado

Scott Fly Rod Company
Montrose, CO

Seek Outside
Ridgway, CO

Connecticut

Farmington Valley Trout Unlimited
Newington, CT

Sturm, Ruger & Co., Inc.
Southport, CT

District of Columbia

National Capital Chapter (Trout Unlimited)
Washington, DC

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Florida

Florida Council (Fly Fishers International)
Tallahassee, FL

Nautilus Reels
Miami, FL

Georgia

Upper Cattahoochee Chapter of Trout Unlimited
Atlanta, GA

Hawaii

Hawaii on the Fly
Kailua, HI

Idaho

Carriboo Conservancy, Inc.
Pocatello, ID

Clearwater-Snake Rivers Chapter of Trout Unlimited
Moscow, ID

First Lite
Ketchum, ID

RIO Products
Idaho Falls, ID

Smith Optics
Ketchum, ID

Southeast Idaho Fly Fishers Chapter (TU)
Pocatello, ID

Suncloud
Ketchum, ID

Tightline Studio
Boise, ID

The Waterworks-Lamson
Ketchum, ID

WorldCast Anglers
Victor, ID

Illinois

Illinois Council (Trout Unlimited)
Oak Brook, IL

Iowa

Iowa State Council (Trout Unlimited)
Des Moines, IA

North Bear Chapter (Trout Unlimited)
Ankeny, IA

Kansas

ARC Fishing
Kansas City, KS

Kentucky

Kentucky Council of Trout Unlimited
Louisville, KY

Louisville Trout Unlimited Chapter
Louisville, Kentucky

Maine

Georges River Chapter of Trout Unlimited
Camden, ME

Kennebec Valley Chapter (Trout Unlimited)
Dresden, ME

Merrymeeting Bay Chapter of Trout Unlimited
Harpswell, ME

Mollyockett Chapter (Trout Unlimited)
Bethel, ME

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Eldredge Brothers Fly Shop
Cape Neddick, ME

Sebago Chapter of Trout Unlimited
Portland, Maine

Maryland

Maryland Chapter (Trout Unlimited)
Towson, Maryland

Mid-Atlantic Council (Trout Unlimited)
Towson, Maryland

Massachusetts

Cape Cod Chapter (Trout Unlimited)
Mashpee, MA

Cheeky Fishing
Arlington, MA

Nor'East Chapter (Trout Unlimited)
Ipswich, MA

Pioneer Valley Chapter of Trout Unlimited
Ware, MA

Shadowcaster Charters
Newburyport, MA

Vedavoo
Leominster, MA

Michigan

Great Lakes Council (Fly Fishers International)
Pentwater, MI

Great Lakes Fly Fishing Company
Rockford, MI

Headwaters Chapter (Trout Unlimited)
Gaylord, MI

Pere Marquette River Chapter (Trout Unlimited)
Troy, MI

Pine River Area Chapter (Trout Unlimited)
Cadillac, MI

Vanguard Chapter (Trout Unlimited)
Rochester Hills, MI

Minnesota

Bob White Studio
Marine on St. Croix, MN

Missouri

Southwest Missouri Fly Fishers
Springfield, MO

Tri-City Fly Fishers
Bolivar, MO

Montana

Anglers West Flyfishing Outfitters
Emigrant, MT

Bitterroot Chapter (Trout Unlimited)
Hamilton, MT

Brant Oswald Fly Fishing
Livingston, MT

Catch Fly Fishing
Billings, MT

Chuck Stranahan's Flies & Guides
Hamilton, MT

Confluence Films
Bozeman, MT

Fishing with Larry
Columbus, MT

Flathead Valley Chapter (Trout Unlimited)
Kalispell, Montana

Fly on the Wall Travels, LLC

EPA-9698-0006108

Missoula, MT

Hellgate Hunters & Anglers
Missoula, MT

Montana Angler Fly Fishing
Bozeman, MT

Montana Council (Trout Unlimited)
Whitefish, Montana

Riverside Anglers, Inc.
West Yellowstone, MT

Robertson Stykbow
Forestgrove, MT

Simms Fishing Products
Bozeman, MT

Sitka Gear
Bozeman, MT

Sweetwater Travel
Livingston, MT

Triple-M Outfitters
Dixon, MT

Yellow Dog Fly Fishing Adventures
Bozeman, MT

Nebraska

HuntingLife Media
Lincoln, NE

Nevada

Coalition for Nevada's Wildlife
Reno, NV

Nevada Backcountry Hunters & Anglers
Reno, NV

Truckee River Flyfishers
Reno, NV

New Jersey

Fred S. Burroughs North Jersey Chapter (TU)
Sparta, New Jersey

New Jersey State Council of Trout Unlimited
Morris Plains, New Jersey

Ridge & Valley Chapter of Trout Unlimited
Washington, New Jersey

New Mexico

Dona Ana County Associated Sportsmen
Las Cruces, NM

Southwest Consolidated Sportsmen
Las Cruces, NM

New York

Catskill Mountains Chapter (Trout Unlimited)
Kingston, NY

Chenango Valley Chapter (Trout Unlimited)
Norwich, NY

Dave Brandt Chapter (Trout Unlimited)
Oneonta, NY

New York City Chapter (Trout Unlimited)
New York, NY

New York Council (Trout Unlimited)
Elma, NY

North Flats Guiding, LLC
New York, NY

One More Cast Charters
Oceanside, NY

Rugged Intellectual, Inc.
Canandaigua, NY

Tri-Lakes Chapter (Trout Unlimited)
Saranac Lake, NY

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North Carolina

North Carolina Council of Trout Unlimited
Henderson, North Carolina

Ohio

SmithFly Designs
Troy, OH

Oregon

Ashland Fly Shop
Ashland, OR

Brookwood Press, Inc.
Portland, OR

Deschutes River Fishing Company
Camp Sherman, OR

Flywater Travel
Ashland, OR

Little Creek Outfitters
Maupin, OR

Loon Outdoors
Ashland, OR

Oregon Pack Works
Bend, OR

Salmon & Steelhead Journal
Portland, OR

Steelheader's Journal
Portland, OR

Traveling Angler
Portland, OR

Tualatin Valley Chapter (Trout Unlimited)
Portland, OR

Pennsylvania

Allegheny Mountain Chapter of Trout Unlimited
DuBois, Pennsylvania

Donegal Chapter (Trout Unlimited)
Lancaster, Pennsylvania

The Flyfishing Show
Somerset, PA

Forks of the Delaware Chapter (Trout Unlimited)
Stockertown, PA

Penn's Creek Chapter (Trout Unlimited)
Lewistown, PA

Stanley Cooper Sr. Chapter (Trout Unlimited)
Kingston, PA

Valley Forge Chapter (Trout Unlimited)
West Chester, PA

Wild for Salmon
Bloomsburg, PA

Yellow Breeches Outfitters
Boiling Springs, PA

South Dakota

South Dakota Wildlife Federation
Pierre, SD

Tennessee

Dun Magazine
Dover, TN

Fly Squared Media
Dover, TN

Strike King Lure Company
Collierville, TN

a Tight Loop magazine

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Dover, TN

Texas

Deneki Outdoors
Dallas, TX

Guadalupe River Chapter of Trout Unlimited
Sattler, Texas

Utah

Paradise Properties
Sandy, UT

Utah Council (Trout Unlimited)
South Weber, UT

Vermont

MadDog Chapter (Trout Unlimited)
Moretown, VT

New England Chapter (Backcountry Hunters & Anglers)
Montpelier, VT

Vermont Council (Trout Unlimited)
Moretown, VT

Virginia

Virginia Fishing Adventures/Virginia Outside
Richmond, VA

Washington

DRYFT Fishing
Bellingham, WA

Emerald Water Anglers
Seattle, WA

Far Bank Enterprises
Bainbridge Island, WA

The Flyfish Journal
Bellingham, WA

G. Loomis
Woodland, WA

Gig Harbor Fly Shop
Gig Harbor, WA

Human Nature Hunting School
Seattle, WA

Icicle Valley Chapter (Trout Unlimited)
Leavenworth, Washington

Redington
Bainbridge Island, WA

Rvrfshr Products, LLC
Seattle, WA

Sage Fly Fishing
Bainbridge Island, WA

Washington State Council (Fly Fishers Int'l)
Everett, WA

Yakima Fly Fishers Association Trout Unlimited Chapter
Yakima, Washington

Washington, DC

National Capital Chapter (Trout Unlimited)
Washington, DC

Wisconsin

Harry and Laura Nohr Chapter of Trout Unlimited
Dodgeville, Wisconsin

St. Croix Rods
Park Falls, WI

Wild Rivers Chapter of Trout Unlimited
Iron River, Wisconsin

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Wisconsin Council (Trout Unlimited)
Oshkosh, WI

Wyoming

Fish the Fly Guide Service and Travel
Jackson, WY

Jackson Cardinal Flies, Inc.
Jackson, WY

Sweetwater Fishing Expeditions, LLC
Lander, WY

Wyoming Council (Trout Unlimited)
Casper, Wyoming

Yellowstone Fly Rods
Jackson, WY

INTERNATIONAL

Bahamas

Abaco Lodge
Abaco Island

Bair's Lodge
South Andros Island

Mangrove Cay Club
Mangrove Cay

Brazil

Agua Boa Lodge
Manaus/Amazon

Canada

Steelhead Valhalla Lodge
Sustut River, British Columbia

Mongolia

Sweetwater Taimen Camps
Eg-Ur watershed

United Kingdom

Albury Game Angling
Albury, Surrey

Dragon Tackle International, Limited
LLangan, Vale of Glamorgan

Fish & Fly, Ltd.
Worth, West Sussex

Midlands Fly Fishing
Forsbrook, Staffordshire

That Fly
Wokingham, Berkshire

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Supporting Materials #11

The Economic Importance of the Bristol Bay Salmon Industry

prepared for the

Bristol Bay Regional Seafood Development Association

by

Gunnar Knapp
Mouhcine Guetttabi
Scott Goldsmith

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907-786-7710 / www.iser.uaa.alaska.edu/

April 2013

THE ECONOMIC IMPORTANCE OF THE BRISTOL BAY SALMON INDUSTRY

EXECUTIVE SUMMARY

By any measure, the Bristol Bay sockeye salmon fishery is very large and valuable. It is the world's most valuable wild salmon fishery, and typically supplies almost half of the world's wild sockeye salmon. In 2010, harvesting, processing, and retailing Bristol Bay salmon and the multiplier effects of these activities **created $1.5 billion** in output or sales value across the United States.

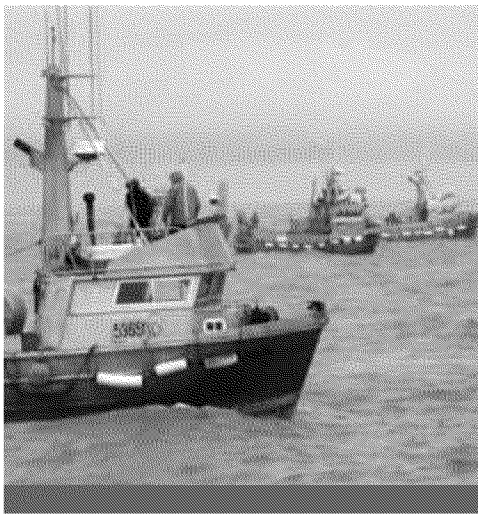
In 2010, Bristol Bay salmon fishermen harvested 29 million sockeye salmon worth $165 million in direct harvest value alone. That represented 31% of the total Alaska salmon harvest value, and was greater than the total value of fish harvests in 41 states. Salmon processing in Bristol Bay increased the value by $225 million, for a total first wholesale value after processing of $390 million. The total value of Bristol Bay salmon product exports in 2010 was about $250 million, or about 6% of the total value of all U.S. seafood exports.

In 2010, the Bristol Bay sockeye salmon fishery supported 12,000 fishing and processing jobs during the summer salmon fishing season. Measuring these as year-round jobs, and adding jobs created in other industries, the Bristol Bay salmon fishery created the equivalent of almost 10,000 year-round American jobs across the country, and brought Americans $500 million in income. For every dollar of direct output value created in Bristol Bay fishing and processing, more than two additional dollars of output value are created in other industries, as payments from the Bristol Bay fishery ripple through the economy. These payments create almost three jobs for every direct job in Bristol Bay fishing and processing.

United States domestic consumption of Bristol Bay frozen sockeye salmon products has been growing over time as a result of sustained and effective marketing by the industry, new product development and other factors. This growth is likely to continue over time, which will result in even greater output value figures for the industry's economic impacts across the U.S.

The economic importance of the Bristol Bay salmon industry extends far beyond Alaska, particularly to the West Coast states of Washington, Oregon and California.

Bristol Bay fishing boats



- About one-third of Bristol Bay fishermen and two-thirds of Bristol Bay processing workers live in West Coast states.
- Almost all major Bristol Bay processing companies are based in Seattle.
- Most of the supplies and services used in fishing and processing are purchased in Washington state.
- Significant secondary processing of Bristol Bay salmon products occurs in Washington and Oregon.

The economic importance of the Bristol Bay salmon industry goes well beyond the value, jobs, and income created by the fishing and processing which happens in Bristol Bay. More value, jobs and income are created in *downstream industries* as

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Bristol Bay salmon are shipped to other states, undergo further processing, and are sold in stores and restaurants across the United States. Still more jobs, income and value are created in other industries through *multiplier impacts* as Bristol Bay fishermen and processors and downstream industries purchase supplies and services, and as their employees spend their income.

Economic Impacts of the Bristol Bay Salmon Industry in 2010

Annual average employment: 9,800 jobs	Output value: $1.5 billion	Income: $500 million
Fishing & processing in Bristol Bay		
12,000 seasonal jobs (=2,000 annual jobs)	$390 million	$140 million
Shipping, secondary processing & retailing after Bristol Bay		
1,000 jobs	$110 million	$40 million
Multiplier impacts in other industries		
6,800 jobs	$970 million	$320 million

Overview of the Bristol Bay Salmon Industry

Bristol Bay is located in southwestern Alaska. Each year tens of millions of sockeye salmon return to spawn in the major river systems which flow into Bristol Bay. The large lakes of the Bristol Bay region provide habitat for juvenile sockeye salmon during their first year of life.

A Bristol Bay salmon fisherman

For well over a century, Bristol Bay salmon have supported a major salmon fishing and processing industry. Most of the harvest occurs between mid-June and mid-July. At the peak of the fishing season, millions of salmon may be harvested in a single day.

Only holders of limited entry permits (issued by Alaska's state government) and their crew are allowed to fish in Bristol Bay. There are permits for two kinds of fishing gear: drift gillnets (operated from fishing boats) and set gillnets (operated from shore). There are approximately 1,860 drift gillnet permits and approximately 1,000 set net permits. Drift gillnet permits average much higher catches and account for most of the total catch. About one-third of the permit holders are from West Coast states.

Bristol Bay Salmon Industry Permit Holders, by State of Residence, 2010

Permit Type	Alaska	Washington	Oregon	California	Other States & Countries	Total
Drift Gillnet	845	642	98	109	156	1,850
Set Gillnet	629	127	38	34	99	927
Total	1,474	769	136	143	255	2,777

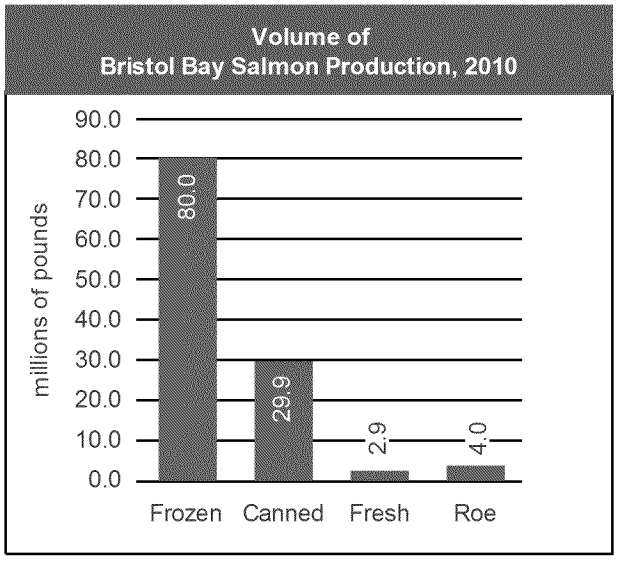
EPA-9698-0006116

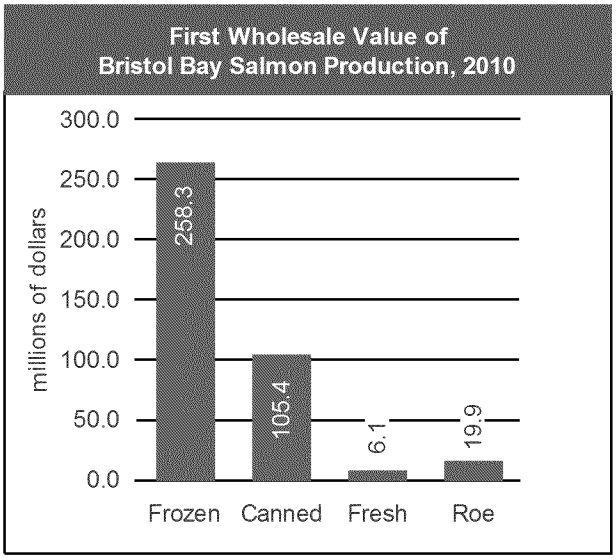
For each permit holder, who is usually a captain, there are typically two to three additional crew members. About 7,000 fishermen fished in Bristol Bay in 2010.

The Bristol Bay salmon harvest is processed by about 10 large processing companies and 20 smaller companies employing about 5,000 processing workers at the peak of the season in both land-based and floating processing operations. Most of the workers are from other states and live in bunkhouse facilities at the processing plants.

Bristol Bay salmon are processed into four major primary products: frozen salmon, canned salmon, fresh salmon, and salmon roe. Frozen salmon includes both headed and gutted (H&G) salmon as well as salmon fillets.

Frozen and canned salmon account for most of the volume and value of Bristol Bay salmon production.

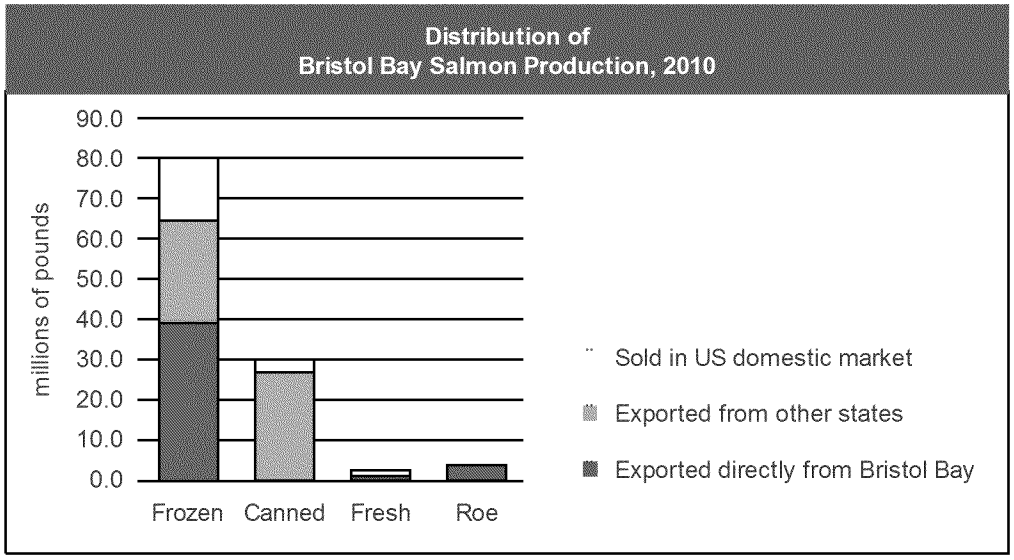




About half of Bristol Bay frozen salmon is exported directly from Bristol Bay, primarily to Japan and China. Most of the remaining frozen salmon is shipped to Washington state where much of it is repackaged and/or reprocessed into secondary products such as fillets, portions and smoked salmon. Some of these products are exported while the rest are sold in the US domestic market.

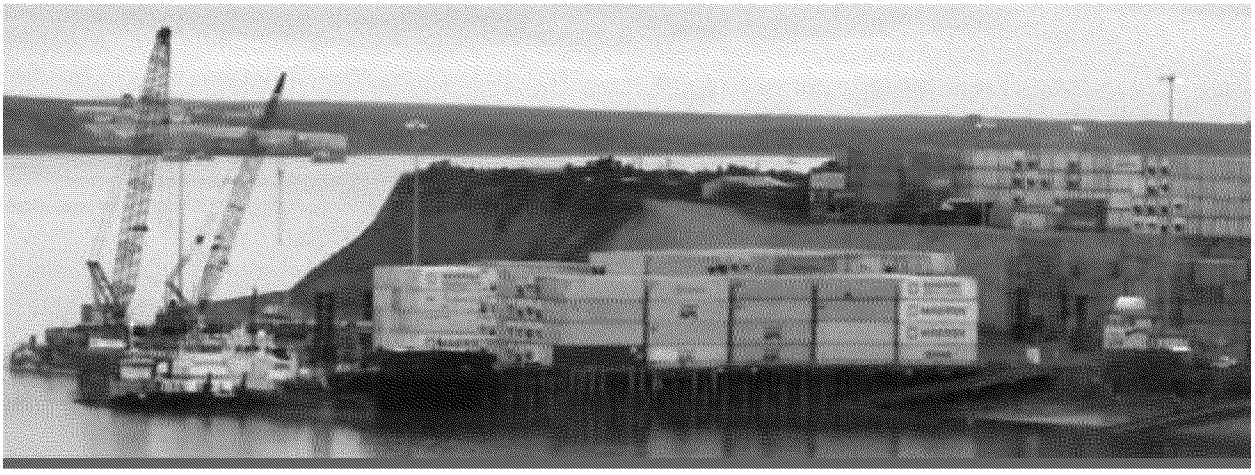
Bristol Bay canned salmon is shipped to warehouses in Washington and Oregon where it is stored, labeled, and sold by processors over the course of the year, mostly to the United Kingdom and other export markets.

The total value of Bristol Bay salmon product exports in 2010 was about $252 million, or about **6% of the total value of all U.S. seafood exports.**



The value of Bristol Bay salmon increases at each stage in the distribution chain. Because a large share is exported, most of the increase in value in the United States occurs in Bristol Bay fishing and processing. About one-fifth of the total increase in value occurs in later stages of the distribution chain.

Containers for shipping Bristol Bay salmon products



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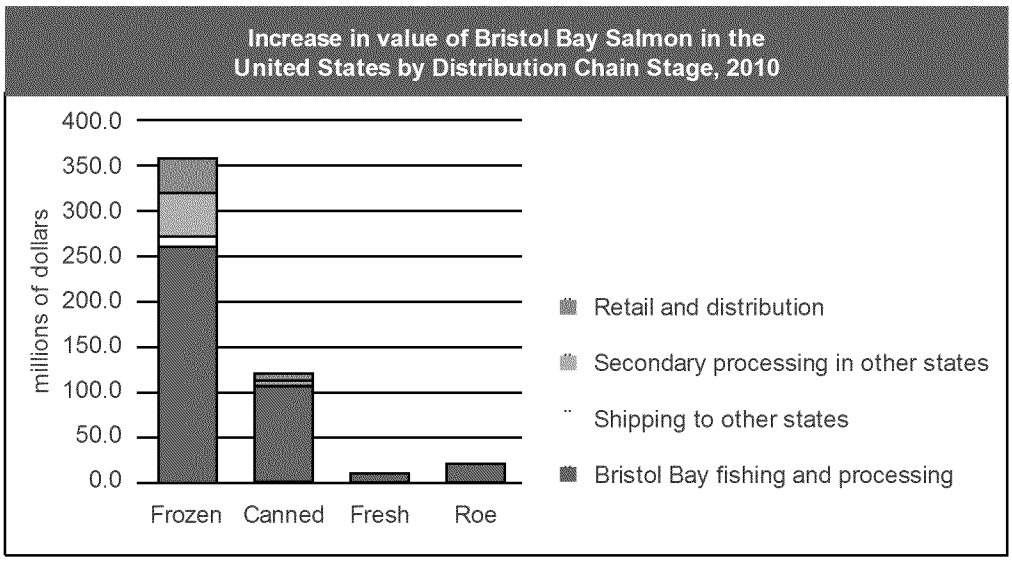

Economic Impacts of the Bristol Bay Salmon Industry

Economic impacts of the Bristol Bay salmon industry are the jobs, income and output value created by the fishery—or the jobs, income and output value that would not exist if the industry did not exist. Economic impacts include:

» *Direct economic impacts:* Jobs, income and output value in businesses directly involved in harvesting, processing, and retailing Bristol Bay salmon.

» *Multiplier economic impacts:* Jobs, income and output value created in other industries as Bristol Bay fishermen, processors and downstream industries purchase supplies and services, and as their employees spend their income.

We estimated both direct and indirect economic impacts for three stages of the distribution or value chain for Bristol Bay salmon in the United States:

» Fishing and primary processing in Bristol Bay

» Shipping to other states and secondary processing

» Distribution and retailing (nationwide transportation, wholesaling and retailing of Bristol Bay salmon products in stores and restaurants throughout the United States)[1]

[1] The economic effects of distribution and retailing of Bristol Bay salmon are technically economic contributions rather than economic impacts, because if Bristol Bay salmon did not exist stores would sell other products instead, which would still create jobs, income and output value. Because no data are available for Bristol Bay salmon retail volumes and prices, our estimates of economic contributions for this stage are based on the simple assumption that distribution and retailing increases the value of Bristol Bay salmon products by an average of 50%.

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We estimated economic impacts for the United States as well as for Alaska, Washington, Oregon and California in 2010. To estimate economic impacts, we used IMPLAN input-output modeling software which tracks the ripple effects of payments between industries at both the national level as well as within individual states.

Our economic impact estimates do not account for the fact that Bristol Bay salmon fishing and processing helps to cover a significant share of the fixed costs of many Alaska and Pacific Northwest fishermen and processors, or for the economic benefits of Bristol Bay salmon exports in helping to offset the large United States seafood trade deficit. Thus our estimates of the economic importance of the Bristol Bay seafood industry are conservative.

In 2010, almost 12,000 people worked in the Bristol Bay salmon industry during the fishing season, which occurs primarily in June and July. Of these, about 4,400 were Alaska residents, while most of the others were residents of West Coast states.

To compare Bristol Bay seasonal jobs lasting about two months with other year-round employment impacts, we converted them to annual average employment by dividing seasonal employment by six. Expressed as annual average employment, in 2010, almost 10,000 American jobs were created in harvesting, processing, and retailing Bristol Bay salmon and through the multiplier effects of these activities.

In 2010, Americans earned $500 million from harvesting, processing, and retailing Bristol Bay salmon and the multiplier effects of these activities.

Seasonal Jobs in the Bristol Bay Salmon Industry, by State of Residence, 2010

	Total US	Alaska	Washington	Oregon	California	Other States
Fishing	7,035	3,734	1,948	362	345	646
Processing	4,886	635	1,279	1,781	208	983
Total	11,921	4,369	3,227	2,143	553	1,629

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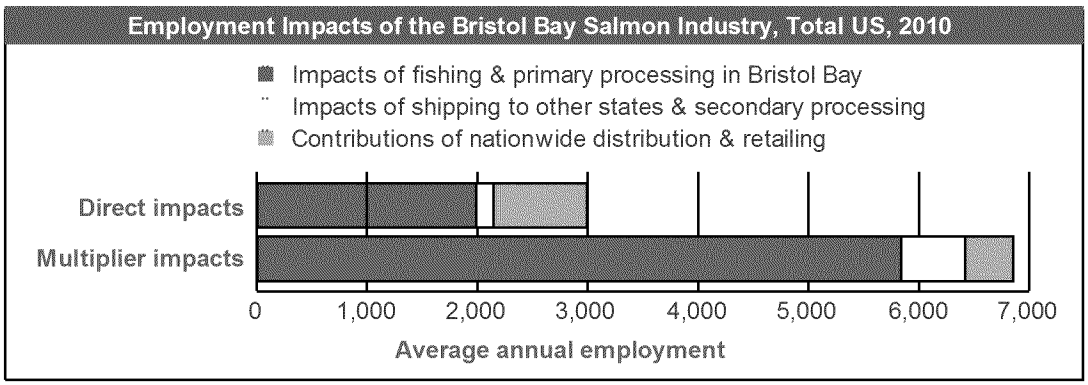

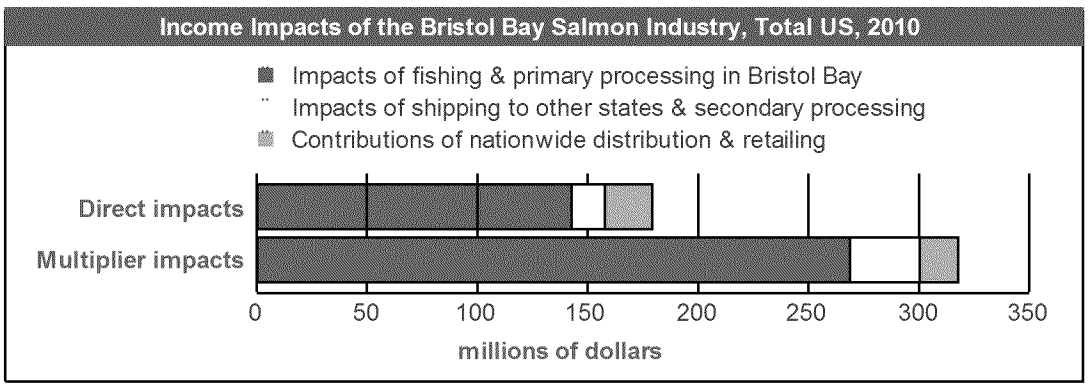

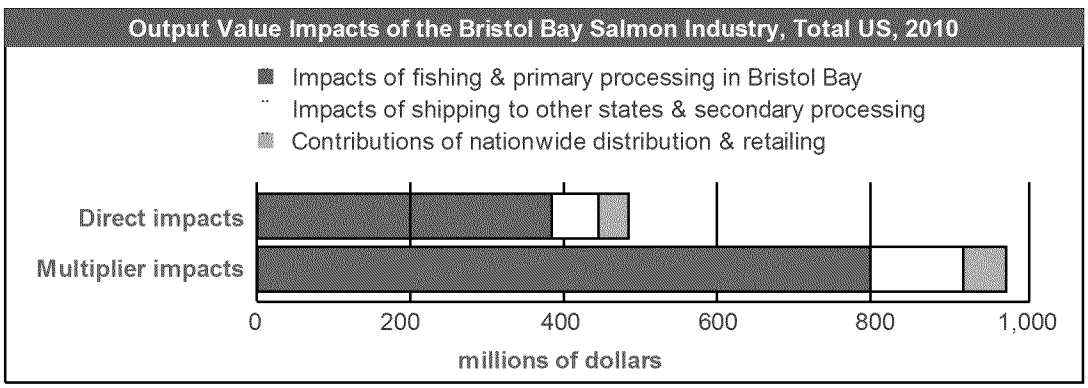

In 2010, $1.5 billion in output value was created in the United States in harvesting, processing, and retailing Bristol Bay salmon and the multiplier effects of these activities.

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The tables below provide additional details of our economic impact estimates. A large share of the impacts occur in West Coast states—reflecting the fact that about one-third of Bristol Bay fishermen and two-thirds of Bristol Bay processing workers live in West Coast states; almost all major Bristol Bay processing companies are based in Seattle; most of the supplies and services used in fishing and processing are purchased from Washington; and significant secondary processing of Bristol Bay salmon products occurs in Washington and Oregon.

Employment Impacts of the Bristol Bay Salmon Industry, 2010 (annual average employment)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts*	1,987	728	538	92	357	271
	Multiplier impacts	5,852	1,338	2,237	163	249	1,865
	Total impacts	**7,839**	**2,066**	**2,775**	**255**	**606**	**2,137**
Shipping to other states and secondary processing	Direct impacts	191		156	15		
	Multiplier impacts	563		229	24		
	Total impacts	**754**		**385**	**39**		
Total impacts		**8,592**		**3,160**	**294**		
Nationwide distribution and retailing**	Direct contributions	787	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. *Direct employment impacts of fishing and processing in Bristol Bay were calculated by dividing seasonal employment by 6. **Based on conservative assumption that distribution and retailing increases value by 50%.				
	Multiplier contributions	425					
	Total contributions	**1,212**					
Total impacts & contributions		**9,804**					

Income Impacts of the Bristol Bay Salmon Industry, 2010 (millions of dollars)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts	144	50	48	8	19	18
	Multiplier impacts	268	62	98	7	12	90
	Total impacts	**412**	**112**	**146**	**15**	**31**	**108**
Shipping to other states and secondary processing	Direct impacts	13		11	1		
	Multiplier impacts	30		12	1		
	Total impacts	**43**		**23**	**2**		
Total impacts		**455**		**169**	**17**		
Nationwide distribution and retailing*	Direct contributions	23	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. *Based on conservative assumption that distribution and retailing increases value by 50%.				
	Multiplier contributions	20					
	Total contributions	**42**					
Total impacts & contributions		**497**					

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Output Value Impacts of the Bristol Bay Salmon Industry, 2010 (millions of dollars)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts	390	127	198	13	19	32
	Multiplier impacts	801	161	288	19	37	297
	Total impacts	**1,191**	**288**	**486**	**32**	**56**	**329**
Shipping to other states and secondary processing in WA & OR	Direct impacts	68		56	4		
	Multiplier impacts	111		37	3		
	Total impacts	**179**		**93**	**6**		
Total impacts		**1,370**		**580**	**38**		
Nationwide distribution and retailing*	Direct contributions	46	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. Output value allocated among states based on the residency of fishing and processing workers and business locations. * Based on conservative assumption that distribution and retailing increases value by 50%.				
	Multiplier contributions	61					
	Total contributions	**106**					
Total impacts & contributions		**1,476**					

Conclusions

The Bristol Bay salmon fishery is the world's most valuable wild salmon fishery. It contributes well over $1 billion in value and about 10,000 jobs to the United States economy every year, across multiple industries and states. It has operated continuously for more than 120 years and can continue to provide significant and widespread economic benefits across multiple industries and states for the foreseeable future.

EPA-9698-0006123

Supporting Materials #12

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).[1]

[1] 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

EPA-9698-0006125

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,[2] and three of EPA's regional priorities;[3] (3) initiating a 404(c) process promotes EPA's goal that decisions be based on science, law, transparency, and stronger EPA oversight;[4] and (4) doing so is consistent with EPA's national priorities of increased oversight of mineral processing[5] 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.

[2] 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.

[3] 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).

[4] *Id.* Pebble mine also raises issues that may require the assistance of EPA staff in other offices.

[5] 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.

EPA-9698-0006126

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."[6]

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."[7]

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.[8]

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.[9] In

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[6] *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 (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).

[7] 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.

[8] 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.

[9] 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*

EPA-9698-0006127

2006, Northern Dynasty Mines, Inc. (NDM)[10] 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.[11] 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;[12] (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/pecomines_ext/events/workshop/ProceedingsOrtaWorkshop.pdf.

[10] 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...

[11] 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.

[12] 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.

EPA-9698-0006128

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;[13] (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,[14] subsistence and recreation, including in combination with increased population, access and competition for fish and game;[15] (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 nearly 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.[16] 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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[13] 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.

[14] 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.

[15] *See* accompanying letter from counsel addressing likely effects on subsistence and recreational use from a potential Pebble mine.

[16] 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.

EPA-9698-0006129

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.[17] 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.[18]

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.[19] 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

[17] PLP recently postponed its applications from 2010 until 2011, and may delay further.
[18] 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.
[19] 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.

EPA-9698-0006130

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

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.[21] 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.[22] 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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[20] In *Nondalton Tribal Council, et al., v. ADNR.*, 3AN-09-46 CI (3rd 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.

[21] 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.

[22] 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.

EPA-9698-0006131

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 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)

EPA-9698-0006132

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 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: 5/04/10

Dennis Andrew Sr

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

Enclosures (2)

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 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 Angeline Chukwak Vice President

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

Enclosures (2)

05/12/2010 02:08 FAX 003/003
EPA-9698-0006134

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 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: 5/11/10

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

Enclosures (2)

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 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: 5/12/2010

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

Enclosures (2)

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 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: 5-13-2010

Herman F. Nelson Sr.

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

Enclosures (2)

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 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,

Dated: 5-20-10

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Enclosures (2)

EPA-9698-0006138

Bristol Bay
Native Corporation
Enriching Our Native Way of Life

111 West 16th Avenue, Suite 400 / Anchorage, Alaska 99501 / (907) 278-3602 / Fax (907) 276-3924

EPA-9698-0006139

August 12, 2010

Dennis J. McLerran, Regional Administrator
Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101
Phone: (206) 553-1200, (800) 424-4372
Fax: (206) 553-2955

Via electronic and first class mail

Re: Clean Water Act 404(c) process to prohibit certain lands from use as a disposal site for dredged or fill material

Dear Mr. McLerran:

Bristol Bay Native Corporation (BBNC) respectfully requests that EPA initiate a public administrative process to carefully tailor a prohibition of the discharge of dredged or fill material from the proposed Pebble mine, located on specific land owned by the State of Alaska at the headwaters of the Kvichak and Nushagak River drainages under Section 404(c) of the Clean Water Act. The Act authorizes the Administrator of EPA to prohibit, restrict, or deny the discharge of dredged or fill material at defined sites in waters of the United States (including wetlands) when the use of such sites for disposal would have an unacceptable adverse impact on fisheries, wildlife, municipal water supplies, or recreational areas. This request fully meets those requirements.

The Pebble Limited Partnership (PLP)[1] has mining claims in the Bristol Bay region, and proposes a large scale metallic sulfide mine in this area. The massive scope of PLP's proposed mine, the importance and sensitivity of these river drainages and the known facts about the persistence and permanence of impacts to water quality from this type of mining activity are clear indicators that a mine such as that proposed by PLP would present an unacceptable risk of irreparable harm to water, fishery and wildlife resources.

Bristol Bay Native Corporation Background

BBNC is a for-profit corporation created by Congress pursuant to the Alaska Native Claims Settlement Act (ANCSA) to represent the economic, social and cultural interests of the Native people from the Bristol Bay region of Alaska. BBNC represents almost 8,700 shareholders.

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[1] Pebble Limited Partnership is a 50:50 partnership between Northern Dynasty Minerals Ltd and Anglo American PLC.

EPA-9698-0006140

With enactment of ANCSA, the people of the Bristol Bay region relinquished claims to millions of acres of aboriginal homeland in exchange for uncontested title over nearly three million subsurface acres in the Bristol Bay region and $30 million dollars. From the inception of the corporation the directors of BBNC have taken very seriously the responsibility to protect the assets put into their care. The board of directors has followed a long term strategy of responsible development of lands, prudent investment of BBNC financial resources, and maintained the commitment to protect Native culture and the subsistence way of life. BBNC has provided reliable dividends payments to shareholders, created an education foundation, and advocated on behalf of subsistence rights. BBNC continues this work in furtherance of its mission to "enrich our Native way of life."

The Bristol Bay region is one of Alaska's most varied, beautiful, and bountiful. From Togiak to Nondalton and south to Ivanof Bay, it is home to myriad mountains, lakes, and islands. Situated 150 miles southwest of Anchorage, the region's communities are geographically isolated from the rest of the state—and in most cases from one another. Most of the communities in the Bristol Bay region are self-reliant, operating without the benefit of interconnected road and utility systems. The vast majority of households rely on subsistence fishing and hunting for a large percentage of their food.

The economy of the region is dominated by commercial, sport, and subsistence salmon fishing. For some residents fishing provides nearly year-round employment with most activity taking place during the five months of May through September. The watershed of the Bristol Bay region is a sprawling, permeable, porous, network of creeks and streams perfectly designed to produce salmon. In fact, if Alaska were a nation, it would place ninth among seafood producing countries. Forty-two percent of the world's harvest of wild salmon, and 80 percent of the production of high-value wild salmon species such as Sockeye, King and Coho salmon, are from Alaska. Salmon is the most valuable commercial fish managed by the state of Alaska, and Bristol Bay is Alaska's richest commercial fishery. In Bristol Bay, the 2008 harvest of all salmon species was approximately 29.3 million fish, and the preliminary ex-vessel value of this 2008 commercial catch was approximately $113.3 million. Nearly one-third of all of Alaska's salmon harvest earnings came from Bristol Bay.

Salmon are a revered renewable resource that has been harvested sustainably for millennia. The salmon is central to the cultural traditions of the diverse Native cultures of Bristol Bay. Salmon harvesting is essential to the continued economic and cultural viability of the region's inhabitants and to the economic well being of the State of Alaska.

BBNC has experience gained from four decades of stewardship over three million acres of entitlement lands. Throughout those years of stewardship, BBNC's leaders, with input from its land managers and scientists, have balanced the commitment to a traditional lifestyle and a sustainable relationship with the salmon with prudent development of BBNC's other natural resources. BBNC recognizes the region's need to diversify its economy and has investigated non-renewable resource development on its lands in order to provide economic opportunities for its shareholders. BBNC, however, is committed to conservative, sustainable resource and

EPA-9698-0006141

mineral development that does not negatively impact the region's traditional mainstay: fish harvest.

Environmental safeguards, rigorous permitting regimes and active oversight are protocols supported by BBNC in any development effort. Based on all current and available information, the proposed Pebble mine presents an unacceptable risk to the watershed of the Bristol Bay region, thereby threatening the fish harvest of Bristol Bay. The vast size of the proposed development magnifies the ramifications of any potential harm so that the impacts become almost unquantifiable. The economic benefit to the region from the proposed Pebble mine simply does not justify the loss of habitat and contamination risks to our fisheries and the long-term sustainability of Bristol Bay area cultures.

Pebble Limited Partnership Plans Large-Scale Metallic Sulfide Mining

PLP holds mining claims on over 200 square miles of state land within the Bristol Bay Watershed. The company plans to mine these claims for copper, gold and molybdenum.

While the exact parameters of PLP's proposed mine are not yet known, there is sufficient information to know that the proposed mine's risks are too great to accept. PLP's planning and exploration documents indicate that the final mine site would likely be 15 square miles, and include an open pit mine and an underground, block-caving mine. By 2006 estimates, the open pit mine would be 2 miles wide and produce up to 2.5 billion tons of acid-generating waste rock and discharged chemicals. Recent PLP estimates show nearly 11 billion tons of mineral resources, which, if recovered, would generate significantly more acid-generating waste rock.[2] PLP plans to store the tailings waste in artificial lakes restrained by earthen dams. The largest of the dams would be 740 feet tall and 4.3 miles long, as proposed in 2006. The project also would require many miles of roads and bridges within the mine site as well as a 100-mile road to a port facility on Cook Inlet. The port site would require additional facilities to store metal concentrates and fuel, a ship loading structure, barge landing, and offices and housing for workers. Operation of the mine would require pipelines for fuel and rock slurries, electrical power lines, and the constant transport and use of fuel and industrial and domestic chemicals and supplies.

Unacceptable Adverse Impacts from Known Hazards

The proposed mine site is at the top of a hydrologic divide in an especially wet area. The impoundment facilities planned by PLP will create at least two large tailings ponds that sit on highly permeable sand and gravel. Contamination from the disposed mining waste to ground and surface water in this remote region will thus be extremely difficult to contain over time. The high seismicity of the area in which PLP proposes to mine also poses an unacceptable risk of dam failure and increases the risk of ground and surface water contamination.

These risks to Bristol Bay resources from leaching and potential dam failure are something that the people of this region will face long after the proposed mine has stripped the mineral wealth and ceased operating. The impoundment of mining tailings would occur in the

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[2] *See* http://www.pebblepartnership.com/project/faqs ("The Pebble mineral resource totals 5.94 billion tonnes measured and indicated, and 4.84 billion tonnes inferred.")

EPA-9698-0006142

remote and largely uninhabited watershed that provides important spawning grounds for Bristol Bay's world-class salmon fisheries. Contamination to surface and ground water would impact these fisheries, and an impoundment failure quickly would reach BBNC lands and Bristol Bay itself, and thus be devastating to the people of this region.

Tailings impoundment problems and failures, and water contamination at mines of this size around the world, demonstrate that the proposed Pebble mine would pose unacceptable risks of irreparable harm to the water quality and the natural and renewable resources in this region and to the economic, cultural and environmental values that BBNC seeks to protect for its shareholders.

Conclusion

Under section 404(c), EPA has the authority to prohibit or otherwise restrict specified areas from the discharge of dredged or fill material before a permit application has been submitted to the Army Corps of Engineers. BBNC requests that EPA begin this process. What is already known about the scope of current project planning and known contamination from this type of mining poses an unacceptable risk to our shareholders, their subsistence-based livelihoods, and the prospects for future, long-term economic development opportunities for the region.

We urge you to begin the 404(c) process immediately and look forward to working with EPA to supply additional information about the resources of this region that may assist in carefully crafting a prohibition that avoids the unacceptable adverse impacts from the proposed Pebble project.

Sincerely,

Jason Metrokin
President and Chief Executive Officer

cc: Marcia Combes, Director, EPA Alaska Operations Office
Combes.Marcia@epa.gov

Lisa P. Jackson, Administrator
Environmental Protection Agency
Aerial Rios Building
1200 Pennsylvania Avenue, N.W.
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Supporting Materials

Binder Back Pocket

Available at: http://www.bbnc.net/media-publication/bristol-bay-regional-guide/ (30MB)