# Report of An Independent Review Of The United States Environmental Protection Agency's Actions In Connection With Its Evaluation Of Potential Mining In Alaska's Bristol Bay Watershed

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GROUP

			Page
EXEC	CUTIVE SUM	MARY	ES-1
A.	Backgrou	and Facts	ES-2
B.	B. Observations and Conclusion		
MAPS	S		M-1
GLOS	SSARY		G-1
NAM	ES AND TITI	.ES	N-1
INDE	PENDENCE A	AND METHODOLOGY	1
BACK	KGROUND FA	ACTS	6
I.	ACT SECTI PROCESS U	ERMIT EVALUATION PROCESS UNDER CLEAN WATER ON 404, EPA'S REGULATORY AUTHORITY AND UNDER SECTION 404(C), AND THE STATE OF PERMITTING PROCESS	7
	A.	EPA	7
	В.	The Corps' Process for Issuing Permits for Discharge into Waters of the United States	8
	C.	Section 404(c)	13
	D.	Comparison of the Corps' Section 404 Permit Evaluation Process with EPA's Section 404(c) Process	14
	E.	The State of Alaska's Process for Issuing Permits	15
II.	THE REGIO	N, ITS PEOPLE, AND THE RIGHTS HOLDERS	17
	A.	The Bristol Bay Watershed	17
	B.	The Pebble Deposit	20
	C.	Demographics and Socio-Economic Characteristics of the Region	22
	D.	Ownership and Rights to the Land and Minerals of the Pebble Deposit Area	26
		1. The State of Alaska	26
		2. Alaska Native Corporations	27
		3. Owners of the Mineral Claims	28
III.		LE PARTNERSHIP'S PRE-DEVELOPMENT WORK AND THE GS OF FEDERAL AND STATE REGULATORY INTEREST	29
	A.	Baseline Data Collection	29
	B.	The Memorandum of Understanding with ADNR and the Technical Working Groups	30

(continued)

			Page
	C.	EPA Outreach and Role Commencing in the Early 2000s	32
	D.	Local Opposition to Development of the Mine	35
	E.	Local Support for "Due Process" for the Mine	36
IV.		CUSSIONS OF PREEMPTIVE APPLICATION OF 04(C) TO THE BRISTOL BAY WATERSHED	37
	A.	EPA Personnel Begin to Consider Invoking Section 404(c) Preemptively for the Bristol Bay Watershed	37
	В.	Competing Requests of EPA Concerning its Section 404(c) Authority	38
	C.	EPA's Options Paper	40
	D.	Briefing NOAA	41
	E.	EPA's Discussion Matrix	42
	F.	Strategy Development in Support of a Preemptive Section 404(c) Action	43
	G.	Briefing FWS	44
	H.	Requesting Funds to Apply Section 404(c) Preemptively	45
V.		ION TO CONDUCT THE BRISTOL BAY WATERSHED	45
	A.	Early Work and Outreach by EPA on an Outline of an Ecological Assessment	45
	B.	EPA's Announcement and Stakeholder Reactions	46
VI.	BBWA DRA	AFTS	50
	A.	The First Assessment Draft	50
		1. EPA Denies Requests of the State and Others for an Extension of First Draft Comment Period	
		2. Public Responses to the First Assessment Draft	52
		3. Peer Review of the First Assessment Draft	52
	B.	The Second Assessment Draft	55
		1. EPA's Response to Public Comments	56
		2. Review of the Second Assessment Draft	57
		3. Congressional Response to the Second Assessment Draft	58

(continued)

			Page
VII.	THE FINAL	BBWA	58
	A.	Scope and Key Assumptions	59
	B.	Assessment Approach	61
	C.	Compensatory Mitigation	63
	D.	Examples of Critiqued Issues that Remained in the Final BBWA	64
		1. Leachate Seepage	64
		2. TSF Design	65
		3. Water Release Plan	66
VIII.	EPA'S NOTI	ICE OF INTENT TO PROCEED WITH 404(C)	66
	A.	The Corps' Response	68
	B.	The State of Alaska's Response	68
	C.	The Pebble Partnership's Response	69
	D.	EPA's Response to the Notice of Intent Criticisms	70
IX.	EPA'S SECT	TION 404(C) PROPOSED DETERMINATION	70
	A.	Standard for Imposing Restrictions	72
	B.	Public Comment	74
	C.	The State of Alaska's Response to the Proposed Determination	74
	D.	The Pebble Partnership's Response to the Proposed Determination.	75
	E.	EPA's Response to Criticisms of the Proposed Determination	75
X.	LITIGATION	N AND INVESTIGATIONS	77
	A.	House Committee on Oversight and Government Reform Investigation	77
	B.	Senate Committee on Environment and Public Works Investigation	
	C.	Joint Congressional Investigation	78
	D.	EPA Inspector General Investigation	79
	E.	Litigation Instituted by the Pebble Partnership Against EPA	80
		1. Administrative Procedure Act Litigation	80
		2. Federal Advisory Committee Act Litigation	80
		3. FOIA Litigation	81

(continued)

	Page
CONCLUSION AND	D OBSERVATIONS82
A.	This decision is of the utmost importance to the State of Alaska 83
B.	EPA's preemptive use of Section 404(c) under these circumstances is unprecedented. EPA should not experiment with a new decision-making process on a matter of such importance
C.	A decision with such far-reaching effects should be made with the most comprehensive and complete information available. To the extent that regulators impose conditions on development, those conditions should be imposed only in the context of a specific permit application so as to be relevant and appropriate
D.	EPA's Section 404(c) preemptive action based on the BBWA had serious gaps in its scope
E.	EPA inhibited the involvement of two key participants in the Permit/NEPA Process: the Corps and the State of Alaska
APPENDICES	
A.	Timeline of Key Events. App-1
B.	Sampling of Bristol Bay Watershed StudiesApp-11
C.	Sampling of Communications Between EPA and Mine Opponents.App-13
D.	Sampling of Relevant Documents

#### **EXECUTIVE SUMMARY**

In fall 2014, I was approached by the Pebble Partnership ("Pebble Partnership" or the "Partnership") to review the actions of the United States Environmental Protection Agency ("EPA") in connection with its evaluation of potential mining in southwest Alaska's Bristol Bay watershed. The Partnership holds mineral claims to lands owned by the State of Alaska in the headwaters of the Nushagak and Kvichak Rivers of the Bristol Bay watershed (the "Pebble Deposit Area"). This area contains one of the largest known undeveloped deposits of copper in the world, and the Pebble Partnership has been exploring the development of a mine there for more than a decade. The area is also home to one of the most prolific salmon runs in the world. The commercial salmon industry dominates the private sector economy of the Bristol Bay region, and Alaska Natives who reside there have maintained a salmon-centered culture and subsistence-based lifestyle for thousands of years. In July 2014, EPA proposed substantial limits on development in the Pebble Deposit Area.

The Pebble Partnership has expressed the concern that EPA's decision-making process and proposed limits were unfair and wanted an objective party to examine those concerns. The Partnership asked me to review EPA's actions through the lens of how Cabinet-level agencies make decisions on important public policy questions, given my experience in the Legislative and Executive branches of government. I agreed to undertake a review of EPA's actions, assisted by my staff at The Cohen Group and the law firm DLA Piper LLP. I advised the Partnership that I would not review whether a mine should be built; such a determination would require engineering and scientific expertise beyond my capabilities. Nor would I comment on the legality of EPA's actions; that is a question for the courts. But I did feel qualified to review the process by which EPA assessed, and proposed restrictions to reduce, the environmental risks associated with potential mining in the Bristol Bay watershed. vi

I undertook the review on conditions of complete independence. I would follow the facts wherever they might lead, and any conclusions would be mine alone. The Pebble Partnership would have no rights to edit or censor my views. The Partnership agreed to this and to compensate my firm and DLA Piper according to commercially standard terms. No portion of our compensation was contingent upon the result of the review or the content of the report. Vii

To produce the most thorough and balanced review, we interviewed more than 60 people, including three former EPA administrators. The people interviewed represented all points of view on EPA's actions. (EPA declined my request to make current personnel available for interviews.) We reviewed thousands of documents from EPA, other federal agencies, the State of Alaska, Congressional committees, the Pebble Partnership, and other sources. My team also visited the Pebble Deposit Area to observe the Bristol Bay watershed. Viii

The decision about whether mining should occur in this area, as well as the process of making such a decision, has been highly controversial and has generated intense passions on all sides. The controversy has prompted an Inspector General's investigation, Congressional hearings, and litigation.

#### A. Background Facts

The question of the appropriate process to make a determination to permit, limit, or ban development is at the heart of this review. EPA elected to proceed under Section 404(c) of the Clean Water Act to limit development within the Pebble Deposit Area.<sup>x</sup> EPA undertook its Section 404(c) action before the Partnership filed a permit application, but after EPA had conducted an assessment of the potential effects of mining in the region, principally on fish.<sup>xi</sup> The State of Alaska and the Pebble Partnership have argued that EPA should have used the process that is customarily employed when assessing the effects of potential development; that is, the permit application process.<sup>xii</sup>

Congress passed the Clean Water Act in 1972 to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Under the Act, if a development would result in the discharge of dredged or fill materials in the nation's waters (as would be the case here), the developer must first receive a permit from the U.S. Army Corps of Engineers (the "Corps"). The Corps evaluates a permit application (proposing a specific mine with specific control and mitigation measures) using guidelines it developed in conjunction with EPA and complies with the National Environmental Policy Act ("NEPA") and regulations developed by the Council on Environmental Quality. NEPA mandates that the Corps coordinate with EPA and other interested agencies, prepare an environmental assessment, consider an array of public interest factors and the beneficial effects of the proposed project, assess mitigation plans, and evaluate alternatives. The Corps then either issues a permit and imposes conditions or denies the permit application. We refer to this as the "Permit/NEPA Process." The Permit/NEPA Process has been widely endorsed by environmental groups, including the Natural Resources Defense Council.

Section 404(c) authorizes EPA to "prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site . . . whenever [the Administrator] determines . . . that the discharge of such materials into such area will have an unacceptable adverse effect" on the environment. EPA may act under Section 404(c) whenever it has "reason to believe" based on available information that "an unacceptable adverse effect' could result from the specification or use for specification of a defined area for the disposal of dredged or fill material[.]" Regulations promulgated by EPA in 1979 allow it to initiate a process to deny or restrict the use of an area for the disposal of dredged or fill material before a project proponent has submitted a permit application. \*xii\*

The decision regarding which process to use—the Permit/NEPA Process or the preemptive Section 404(c) process—has been a focal point of this controversy. Since passage of the Clean Water Act, EPA has exercised its authority under Section 404(c) thirteen times, in each case relying on a permit application that had already been filed.<sup>xxii</sup> As an internal EPA document reveals, a truly preemptive Section 404(c) action had "[n]ever been done before in the history of the [Clean Water Act]."<sup>xxiii</sup>

Since the early 2000s, EPA has communicated with a variety of stakeholders who hold a wide range of views concerning mining in the Bristol Bay watershed and the potential development of a Pebble mine. XXIV Support for EPA's actions centers on concerns about the environmental impacts of mining and the perceived incompatibility of large-scale mining with the maintenance of a healthy ecosystem and salmon fishery and the preservation of the area residents' way of life. XXV Opposition to EPA's actions is based largely on the potential economic benefits mining may yield for the region, basic "due process" and sovereignty considerations, and the Partnership's belief that mining can occur in the Pebble Deposit Area without harming the salmon fishery. XXVI

In May 2010, six federally-recognized tribes from the Bristol Bay watershed asked EPA to invoke Section 404(c) to protect the region from metallic sulfide mining, including a potential Pebble mine. In the following months, others urged EPA to take action under Section 404(c), noting the cultural, ecological, and economic importance of the watershed and the magnitude of a potential Pebble mine. The State of Alaska, the Pebble Partnership, certain tribes, and other stakeholders opposed the request that EPA preemptively apply Section 404(c), questioning the timing of and EPA's authority for such action and urging EPA to allow the Permit/NEPA Process to take place. The state of Alaska and urging EPA to allow the Permit/NEPA Process to take place.

On February 7, 2011, EPA announced its plan to conduct an assessment of the Bristol Bay watershed (the "BBWA") to determine the significance of its ecological resources and evaluate the potential effects of large-scale mining development. EPA invited various federal agencies to participate in the BBWA. The Corps declined to participate in order to maintain its independence in any subsequent Permit/NEPA Process. The State of Alaska participated in EPA's assessment while also registering its objection to the process. With EPA's assurance that it was not using the BBWA to make a decision under Section 404(c), the Pebble Partnership also participated in the assessment notwithstanding its objection to the study.

To conduct the BBWA in the absence of any permit application, EPA made assumptions about potential mine operations in the Pebble Deposit Area and created hypothetical mine scenarios based largely on a preliminary economic analysis prepared for the Pebble Partnership.\*\*

Over the course of three years, EPA prepared and issued two BBWA drafts for public comment and peer review.\*\*

The considerable public participation in response to the BBWA drafts reflected a wide diversity of opinion as to the quality and comprehensiveness of the BBWA.\*\*

Environmental non-governmental organizations, commercial fishermen, many Alaska Native tribes and tribal organizations, and some state legislators commended EPA on its effort and praised the scientific rigor of the BBWA drafts.\*\*

The State of Alaska, the Pebble Partnership, and other Alaska Native tribes and interested parties identified technical and legal issues they believed undermined the validity of the BBWA, including reliance on hypothetical mine scenarios and failure to consider mitigation strategies to compensate for the loss of wetland habitat caused by mine development.\*\*

Some peer reviewers raised concerns about the use of hypothetical mine scenarios in the BBWA—noting that this approach limited the utility of the study in such a way that the assessment might not "provide risk decision-makers with sufficient information upon which to

make long-term project decisions"—and about the aforementioned failure to address mitigation.<sup>xl</sup> EPA defended its work, asserting that "all mining plans are hypothetical" and that analyzing efforts to mitigate adverse effects "would be addressed through a regulatory process that is beyond the scope of this assessment."<sup>xli</sup>

EPA published the final BBWA on January 21, 2014. EPA stated that the BBWA was not designed to duplicate or replace the Permit/NEPA Process and acknowledged that certain analyses were not undertaken in the BBWA that would occur during the Permit/NEPA Process. Among the most significant gaps was that the BBWA employed hypothetical assumptions as to mine operation and mitigation rather than considering the techniques a developer would propose in an actual permit application. EPA nevertheless expressed confidence that its analyses were conservative and that compensatory mitigation techniques were unlikely to offset impacts of the nature described in the BBWA.

Based on the BBWA, EPA issued its notice of intent to proceed under Section 404(c) on February 28, 2014. EPA gave the Corps, the State of Alaska, and the Pebble Partnership 60 days to submit information to demonstrate that no unacceptable adverse effects to aquatic resources would result from any associated mining discharges. The Corps declined to provide substantive comments on the ground that there was no pending permit application. The State of Alaska and the Pebble Partnership reiterated their respective positions that the Section 404(c) action was premature and that the BBWA was flawed. Their response letters did not persuade EPA to change course, and EPA moved forward with its Section 404(c) action.

On July 18, 2014, EPA Region 10 issued a Proposed Determination relating to development in the Pebble Deposit Area. EPA premised its regulatory action on a hypothetical scenario assessed in the BBWA. EPA proposed restrictions based on its conclusion that an "unacceptable adverse effect on fishery areas" would result from development that would cause

estimated losses of habitat greater than those associated with the hypothetical 0.25 billion-ton mine it evaluated in the BBWA. Since that time, litigation has ensued, and there is currently an injunction in place temporarily prohibiting EPA from further proceedings. Iiv

#### **B.** Observations and Conclusion

Over the course of this review, I have arrived at a number of observations, including:

- The issue of whether mining should occur in the Bristol Bay watershed is of the utmost importance to the State of Alaska's environment, economy, people, and fish and wildlife;
- To date, the Pebble Partnership has not submitted a permit application. Thus, EPA relied on hypothetical scenarios rather than the characteristics of a mine as it was actually planned to be built and maintained;
- EPA failed to address important considerations that would be included in the NEPA/Permit Process, including meaningful participation by other state and federal government agencies, mitigation and controls as proposed by the developer, and an array of public interest factors;
- The Permit/NEPA Process has been used for decades and has been widely endorsed by environmental groups;
- EPA relied upon the BBWA in its Proposed Determination but acknowledged that there were significant gaps in its assessment and that it was not designed to duplicate or replace the Permit/NEPA Process; and
- EPA's unprecedented, preemptive use of Section 404(c) inhibited the involvement of two key participants: the Corps and the State of Alaska. Iv

These observations have informed my conclusion that that EPA's application of Section 404(c) prior to the filing of a permit application was not fair to all stakeholders. Ivi I find that:

The fairest and most appropriate process to evaluate possible development in the Pebble Deposit Area would use the established regulatory Permit/NEPA Process to assess a mine permit application, rather than using an assessment based upon the hypothetical mining scenarios described in the BBWA as the basis for imposing potentially prohibitive restrictions on future mines. lvii

The Permit/NEPA Process is more comprehensive than the preemptive Section 404(c) process employed here. EPA conceded in comments to peer reviewers that there were gaps in its assessment that would be addressed during a Permit/NEPA Process. lviii

While I recognize EPA's authority to initiate Section 404(c) actions, here EPA acknowledged it did so in an unprecedented manner. EPA's use of Section 404(c) before a permit filing compounded the shortcomings of the BBWA noted by several peer reviewers, the State of Alaska, and the Pebble Partnership: the use of hypothetical assumptions that may or may not accurately or fairly represent an actual project; and the failure to take into account mitigation and control techniques a developer might propose. lix

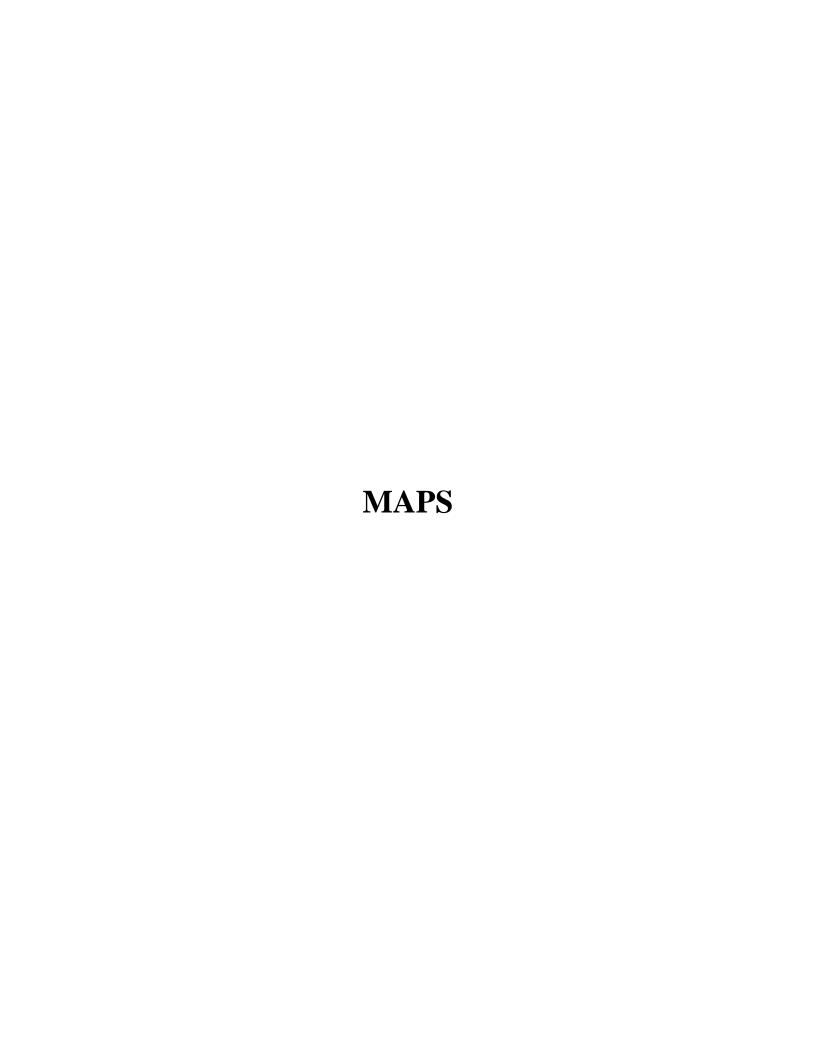
An environmental impact assessment is bound to provide more accurate information if it assumes that the mine will be built in accordance with the developer's plans, rather than a hypothetical mine plan which even EPA acknowledges is likely to be different from a developer-submitted plan. This project is too important, for all stakeholders, to pilot a new, untested decision-making process. The fairest approach is to use the well-established Permit/NEPA Process, and I can find no valid reason why that process was not used.<sup>1x</sup>

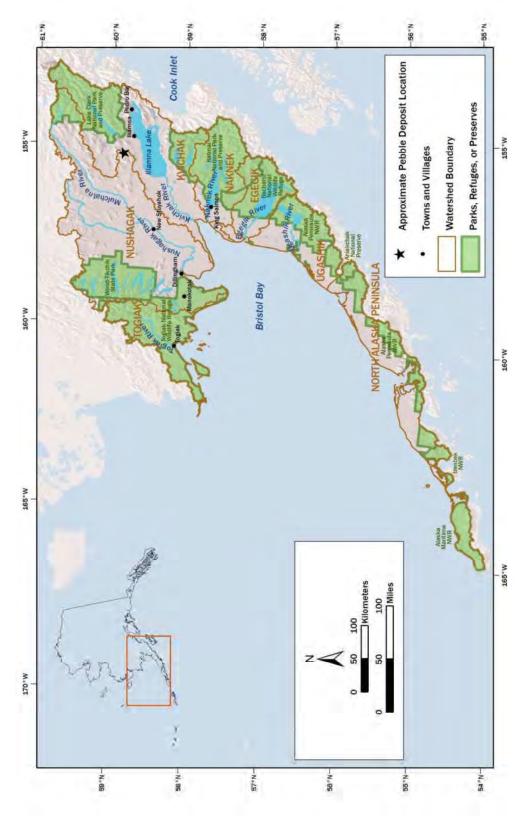
The statements and actions of EPA personnel observed during this review raise serious concerns as to whether EPA orchestrated the process to reach a predetermined outcome; had inappropriately close relationships with anti-mine advocates; and was candid about its decision-making process. I have not attempted to reach conclusions on these issues. First, any such findings would not affect my overarching conclusion about the process that should have been followed. Second, the record remains incomplete on these issues. EPA declined my requests to cooperate with this review, so I allow there may be benign explanations for these actions. There are also troubling gaps in the documents EPA has produced in response to Freedom of

Information Act requests, including those said to be lost as a result of a computer crash and EPA personnel's use of personal email. lxi

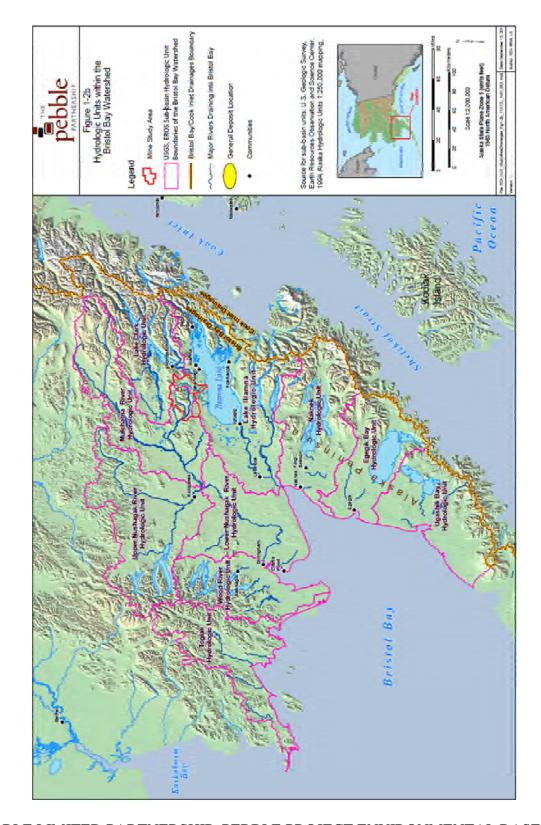
I believe the information unearthed to date merits the development of a complete record by those who have the subpoena power necessary to look at these questions more closely. Government oversight by the proper authorities must play an active role in ensuring that agencies do not engage in preordained decision-making. Thus, I urge the EPA's Inspector General and Congress to continue to explore these questions which might further illuminate EPA's motives and better determine whether EPA has met its core obligations of government service and accountability. Ixii

It is my hope that the policymakers involved in charting the course of the Bristol Bay watershed's future find this report helpful. I have tried to describe the history of EPA's actions accurately and objectively. As we look to the future, I urge policymakers to consider requiring the use of the Permit/NEPA Process. This process, which entails compliance with NEPA and other regulatory requirements, an environmental impact statement, and input from EPA, other relevant agencies, and the State of Alaska, will supply the gaps in information which the BBWA left outstanding. This decision is too important to be made with anything less than the best and most comprehensive information available. [Niii]

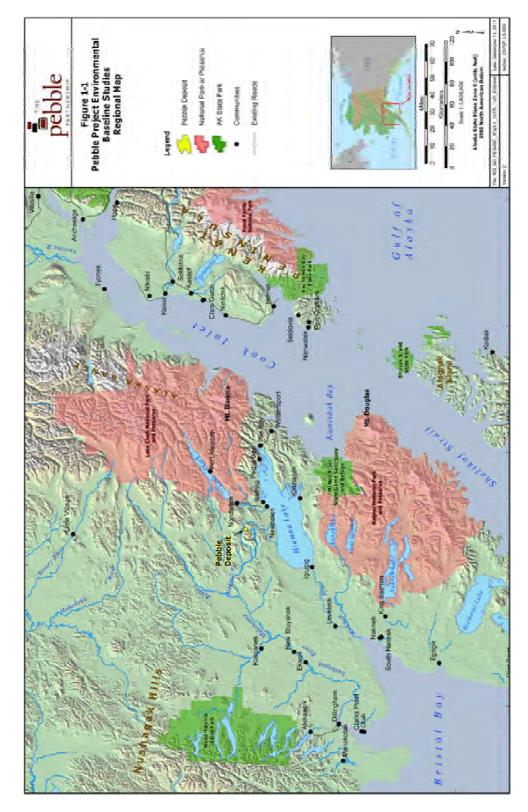




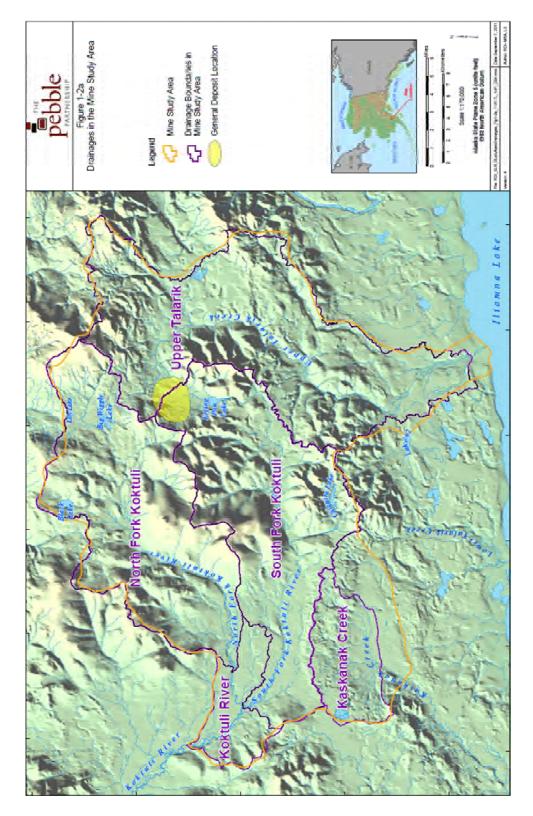
EPA, AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 2-11, fig. 2-3 (2014).



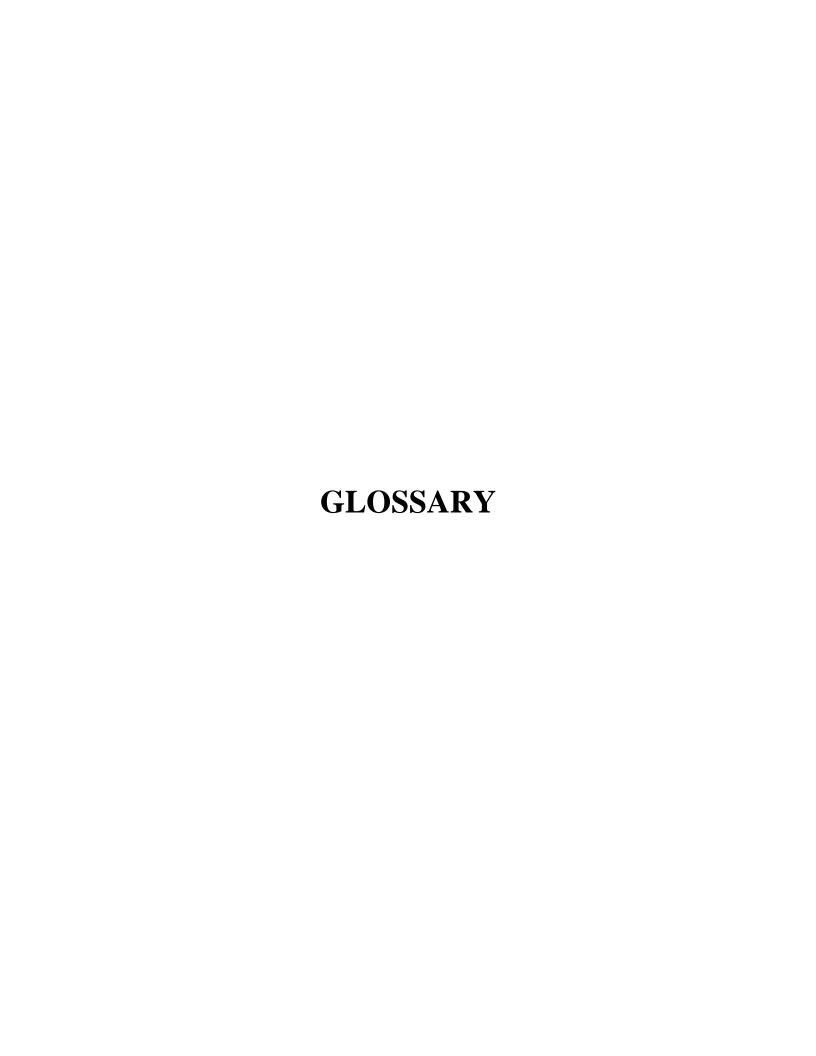
PEBBLE LIMITED PARTNERSHIP, PEBBLE PROJECT ENVIRONMENTAL BASELINE DOCUMENT 2004-2008 fig. 1-2b (2011).



PEBBLE LIMITED PARTNERSHIP, PEBBLE PROJECT ENVIRONMENTAL BASELINE DOCUMENT 2004-2008 fig. 1-1 (2011).

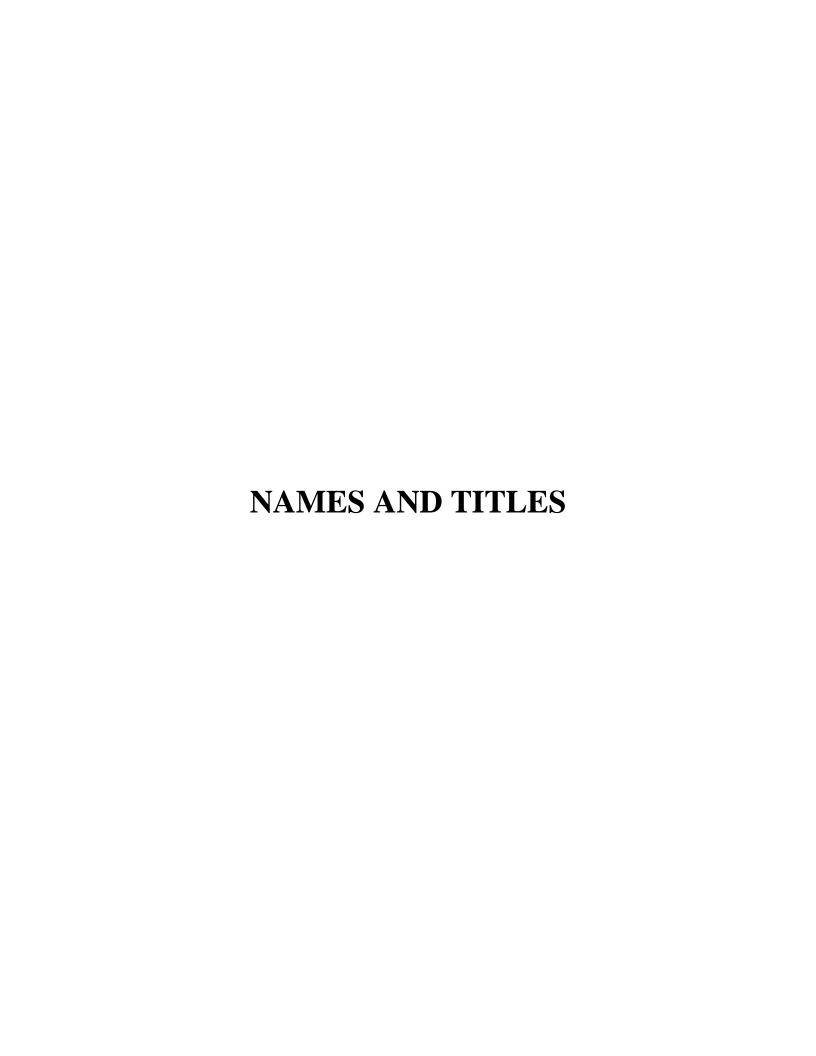


PEBBLE LIMITED PARTNERSHIP, PEBBLE PROJECT ENVIRONMENTAL BASELINE DOCUMENT 2004-2008 fig. 1-2a (2011).



ADNR	Alaska Department of Natural Resources
BBNC	Bristol Bay Native Corporation
BBWA	Bristol Bay watershed assessment, entitled "An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska" issued by EPA on May 18, 2012 (first draft), April 30, 2013 (second draft), and January 2014(final)
Corps	U.S. Army Corps of Engineers
EBD	Environmental baseline document prepared by the Pebble Partnership which includes the results of the studies it conducted during 2004 through 2008, along with some updated with information gathered through 2010
EPA	United States Environmental Protection Agency
FOIA	Freedom of Information Act
FWS	U.S. Fish and Wildlife Service
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
Northern Dynasty	Northern Dynasty Minerals Ltd.
Notice of Intent	The notice of intent to proceed under Section 404(c) of the Clean Water Act "to review potential adverse environmental effects of discharges of dredged and fill material associated with mining the Pebble deposit" issued by EPA on February 28, 2014
NRDC	Natural Resources Defense Council
Pebble Deposit Area	The portion of State of Alaska lands in the headwaters of the Nushagak and Kvichak Rivers of the Bristol Bay watershed that contains mineral resources that the Pebble Partnership desires to extract
Pebble Partnership	Pebble Limited Partnership

Permit/NEPA Process	The process by which the Corps evaluates a permit application using guidelines it developed in conjunction with EPA and complies with the National Environmental Policy Act and regulations developed by the Council on Environmental Quality
Petitioning Tribes	The six tribes who first petitioned EPA to "initiate a public process under Section 404(c) of the Clean Water Act, to protect waters, wetlands, fish, wildlife, fisheries, subsistence and public uses in the Kvichak and Nushagak drainages and Bristol Bay of Southwest Alaska from metallic sulfide mining, including a potential Pebble mine;" namely the Nondalton Tribal Council, Koliganek Village Council, New Stuyahok Traditional Council, Ekwok Village Council, Curyung Tribal Council, and Levelock Village Council
Proposed Determination	Proposed Determination of the U.S. Environmental Protection Agency Region 10 Pursuant to Section 404(c) of the Clean Water Act Pebble Deposit Area, Southwest Alaska issued on July 18, 2104
Working Groups	Technical working groups made up of members of the Pebble Partnership and state and federal agencies that served as forums for discussion of technical issues related to conducting studies of the Pebble Deposit Area



Name	Title
Frances Beinecke	Former President, Natural Resources Defense Council (2006 – 2014)
Rebecca Bernard	Anchorage, Alaska-based attorney who represented BBNC
Alan Boraas	BBWA Contributor; Professor of Anthropology at Kenai Peninsula College and University of Alaska Anchorage
Phil Brna	Fish and wildlife biologist, FWS, Anchorage, Alaska Field Office
Susan Bromm	Director, EPA Office of Federal Activities
Paul C. Broun	Former U.S. Representative (Georgia; July 2007 – January 2015); former chair, U.S. House of Representatives Committee on Science, Space, and Technology, Subcommittee on Oversight
Shoren Brown	Executive Director, Bristol Bay United; former Bristol Bay Campaign Director, Trout Unlimited
Mike Bussell	Former Director, Office of Water and Watersheds, EPA Region 10
David Chambers	President, Center for Science in Public Participation
Michelle DePass	Former Assistant Administrator, Office of International and Tribal Affairs, EPA
William ("Bill") Dunbar	Senior Policy Advisor, EPA Region 10
Sheila Eckman	Former Bristol Bay Watershed Assessment Project Manager, Office of Ecosystems, Tribal and Public Affairs, EPA Region 10
Arvin Ganesan	Former Deputy Chief of Staff for Policy, EPA
Marcus Geist	Former Spatial Data Manager, The Nature Conservancy
Hassan Ghaffari	Professional Engineer; lead author of the Wardrop Report
Cathy Giessel	Alaska State Senator (Anchorage, 2011 - present)
Palmer Hough	Environmental Scientist, Wetlands Division, EPA

Name	Title
Darrell Issa	U.S. Representative (California, 2001 - present); Chairman of the House Oversight and Government Reform Committee (112th and 113th Congresses)
Lisa Jackson	Former EPA Administrator (2009-2013)
James ("Jim") Jordan	U.S. Representative (Ohio, 2007 - present); member House Oversight and Government Reform Committee
Catherine Knott	BBWA Contributor; Assistant Professor of Anthropology at Kenai Peninsula College and University of Alaska Anchorage
Michael Leavitt	Former Governor of Utah (1993-2003); former EPA Administrator (2003-2005); former Secretary of the U.S. Department of Health and Human Services (2005-2009)
Doug Limpinsel	Marine Fisheries Biologist – Habitat Specialist, NOAA, National Marine Fisheries Service, Alaska Regional Office
Ann Maest	Scientist (aqueous geochemistry), Buka Environmental and E-Tech International; formerly affiliated with Stratus Consulting
Dan Maffei	Former U.S. Representative (New York; 2009 - 2011, 2013 - 2015); former member House Committee on Science, Space, and Technology, Subcommittee on Oversight
Frances Mann	Former Regional Coordinator, Conservation Planning Assistance, FWS; Acting Regional Supervisor, Office of Environment, Alaska OCS Region of the Bureau of Ocean Energy Management
Gina McCarthy	EPA Administrator (July 2013 – present)
Patricia McGrath	Former Mining Coordinator, EPA Region 10; Senior Permitting Advisor, Donlin Gold LLC
Elizabeth McKenna	Assistant Regional Counsel, EPA Region 10
Dennis McLerran	EPA Region 10 Administrator
Lisa Murkowski	U.S. Senator (Alaska, 2002 - present)

Name	Title
Wayne Nastri	Consultant to BBNC, Trout Unlimited, and others; former EPA Region 9 Administrator.
Phil North	Former wetlands ecologist with EPA Region 10 Alaska Aquatic Resources Unit
Geoffrey ("Jeff") Y. Parker	Anchorage, Alaska-based attorney who represented the Petitioning Tribes, Renewable Resource Coalition, Robert Gillam, Trout Unlimited, Nunamta Aulukestai (Caretakers of our Land), and the Alaska Independent Fishermen's Marketing Association
Richard ("Rick") Parkin	Former EPA Region 10 Management Lead for the Bristol Bay project
Robert Perciasepe	Former EPA Acting Administrator (February 2013-July 2013); former EPA Deputy Administrator (2009-February 2013; July 2013-2014); President, Center for Climate and Energy Solutions
Michelle Pirzadeh	Deputy Regional Administrator, EPA Region 10
Thomas Quinn	Professor, Aquatic and Fishery Sciences, University of Washington School of Aquatic and Fishery Sciences
Ann Rappoport	Former Field Supervisor, FWS Alaska Field Office; Director of Conservation, Alaska, The Nature Conservancy
William ("Bill") Riley	Former EPA Region 10, Director, Office of Environmental Assessment
John Shively	Former Chief Executive Officer of the Pebble Partnership
Tiel Smith	Former Vice President Land & Natural Resources, BBNC; Director of Resource Management, Arctic Slope Regional Corporation
Cara Steiner-Riley	Attorney, EPA Region 10
Nancy K. Stoner	Former Acting Assistant Administrator for Water, EPA (February 2013 – July 2014); former Deputy Assistant Administrator for Water, EPA (February 2010 – January 2013); Water Program Director, Pisces Foundation

Name	Title
Robert ("Bob") Sussman	Former Senior Policy Counsel to EPA Administrator (February 2009 - July 2013); former Deputy Administrator (March, 1993 - November, 1994); Principal, Sussman and Associates
Michael Szerlog	Manager, Aquatic Resources Unit, EPA Region 10
Mead Treadwell	Former Lieutenant Governor, Alaska (December 2010 – December 2014)
Tim Troll	Former SW Alaska Program Director, The Nature Conservancy; Executive Director, Bristol Bay Heritage Land Trust
Peter Van Tuyn	Anchorage, Alaska-based attorney who represented BBNC and Trout Unlimited
David Vitter	U.S. Senator (Louisiana, 2005 - present); member, Senate Committee on Environment and Public Works; U.S. Representative (Louisiana, 1999 – 2004)
Douglas Wachob	Former Director of Conservation for the Alaska Chapter of The Nature Conservancy
Christine Todd Whitman	Former Governor of New Jersey (1994 - 2001); former EPA Administrator (2001 - 2003)
Carol Ann Woody	Fisheries and aquatic ecology scientist who has worked with The Nature Conservancy and Center for Science in Public Participation, among other organizations, and whose work is cited in the BBWA; co-author, <i>Pebble Mine: Fish, Minerals, and Testing the Limits of Alaska's "Large Mine Permitting Process"</i> ; co-author <i>Groundwater as Essential Salmon Habitat in Nushagak and Kvichak Headwaters: Issues Relative to Mining</i> ; co-author <i>Fish Surveys in Headwater Streams of the Nushagak and Kvichak River Drainages, Bristol Bay, Alaska 2008-2010</i>
Thomas G. Yocom	Former National Wetlands Expert, EPA; Senior Scientist, Huffman-Broadway Group, Inc.
Don Young	U.S. Representative (Alaska, 1973 - present)

#### INDEPENDENCE AND METHODOLOGY

In fall 2014, I was approached by the Pebble Limited Partnership ("Pebble Partnership" or the "Partnership"), which holds mineral claims to lands owned by the State of Alaska in the headwaters of the Nushagak and Kvichak Rivers of the Bristol Bay watershed (the "Pebble Deposit Area"). The Partnership asked me to review the actions of the United States Environmental Protection Agency ("EPA" or the "Agency") leading up to its proposed determination to substantially restrict potential mining in the Pebble Deposit Area. The Pebble Deposit Area contains the largest known undeveloped source of copper in the world. This area is nearly pristine and sparsely inhabited. Its waters feed into Bristol Bay, home to one of the world's most prolific salmons runs. The decision about whether to build a mine in this area, as well as the process to make such a decision, has been highly controversial and has instilled intense passions on all sides. The controversy has generated litigation, an Inspector General's investigation and Congressional hearings.

The Pebble Partnership holds the view that EPA acted unfairly in how it assessed the environmental risks associated with potential mining of the deposit. The Partnership also contends that EPA made a decision to prevent development before conducting a scientific assessment of the potential ecological effects of large-scale mining. The Partnership wanted someone with Cabinet-level experience to test their views, which were obviously subject to self-interest, and to take a fresh look at EPA's actions.

I agreed to undertake a review of EPA's actions, assisted by my staff at The Cohen Group and the law firm DLA Piper LLP. I advised the Pebble Partnership that I would not review whether a mine should be built; such a determination would require engineering and scientific expertise beyond my capabilities. Nor would I comment on the legality of EPA's

actions; that is a question for the courts. But I did feel comfortable reviewing the process by which a federal government agency made an important policy decision, given my experiences.

To conduct the review, we initially established a "red team/blue team" mock-adversarial approach, in which I split my team into two groups. I have found that a "red team/blue team" approach is an effective way to ensure that all sides of a question are vigorously developed. One group marshalled arguments supporting the position that EPA acted fairly; the other group developed arguments supporting the opposite conclusion. I instructed both teams to highlight the best facts and develop the best arguments available.

I undertook background reading and weighed written and oral presentations from both sides. Based on this information, I had serious concerns about certain actions by EPA. Accepting EPA's statutory authority to take action to protect the environment whenever it determines unacceptable adverse effects may result from development activities, my central concern was that EPA took regulatory action under Section 404(c) of the Clean Water Act substantially limiting potential development without first having reviewed a permit application for any proposed project. EPA had never acted preemptively, as it did here, in the 43-year history of the Clean Water Act; the typical process is to await a permit application, and then have a group of relevant agencies, including EPA, engage in a thorough environmental impact assessment coordinated by the U.S. Army Corps of Engineers (the "Corps"). I also had concerns about various statements and actions by EPA suggesting an intent to invoke Section 404(c) even before it conducted an environmental assessment.

I advised the Partnership of these initial concerns. They responded by asking me to perform a more comprehensive review and issue a written report. I agreed, but only if my review was independent. I would have freedom to develop new information and more fully evaluate these concerns, and the Partnership would have no rights to edit or censor my report or

shape my findings. The Pebble Partnership agreed. The Partnership also agreed to compensate my firm and DLA Piper according to commercially standard terms. No portion of our compensation was contingent upon the result of my review or report.

On March 24, 2015, I announced that I would conduct an independent review of EPA's actions in connection with its evaluation of potential mining in Alaska's Bristol Bay watershed. Since then, we performed a much deeper review of the voluminous record and developed information through interviews and site visits. My team and I reviewed extensive documentation about the Bristol Bay watershed, the Pebble Deposit Area, and proposed mine development. These documents came from EPA, the State of Alaska, federal and state agencies, environmental non-governmental organizations, the Pebble Partnership, Northern Dynasty Minerals Ltd., Hunter Dickinson Inc., and other sources.

EPA has published an extensive record regarding its work on the Bristol Bay watershed, including its Bristol Bay watershed assessment, entitled "An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska" (the "BBWA"), its drafts, public and peer reviewer comments, as well as EPA's responses; the "Proposed Determination of the U.S. Environmental Protection Agency Region 10 Pursuant to Section 404(c) of the Clean Water Act Pebble Deposit Area, Southwest Alaska" (the "Proposed Determination") and public comments received in response; information about Section 404(c) of the Clean Water Act and EPA's invocation of it both in connection with potential mining of the Pebble Deposit Area and historically; and details of EPA's tribal engagement. EPA documents alone comprise thousands of pages of material.

We also reviewed Congressional hearing transcripts and relevant litigation filings. As I discuss in more detail in Sections X.A-B of the Background Facts, several Congressional committees have obtained relevant documents, and we have reviewed those documents which

are publicly available. Section X.E discusses litigation arising out of EPA's actions; we have culled those court records for relevant information as well.

In addition, we requested and received more than 42,500 documents produced in response to Freedom of Information Act ("FOIA") requests relating to the Pebble mine project. These FOIA requests were issued by the law firm Steptoe & Johnson LLP on behalf of the Pebble Partnership to the following agencies: EPA (multiple requests); U.S. Fish and Wildlife Service ("FWS"); National Oceanic and Atmospheric Administration ("NOAA"), including the National Marine Fisheries Service; the National Park Service; the Corps; the U.S. Geological Survey; and the Bureau of Land Management of the U.S. Department of the Interior. <sup>1</sup>

We made letter requests to more than 200 stakeholders who hold diverse views about EPA's actions to invite them to provide information and share their views. I had no subpoena power nor any other method of compelling participation. Nevertheless, more than 60 individuals responded to my invitations and voluntarily spoke with me or members of my team. These individuals represented constituencies that publicly have expressed supporting, opposing, and neutral views about a potential Pebble mine. These interviews included those of current and former Alaska government representatives, including from the Alaska Department of Natural Resources ("ADNR"); former federal agency personnel, including from the Corps; representatives from Alaska Native tribes and Alaska Native organizations in the Bristol Bay area; former Congressional aides; scientists, including experts who publicly expressed views against a potential Pebble mine; peer reviewers of the BBWA and of scientific papers cited in that assessment; engineering and environmental consultants; representatives of the Pebble Partnership, Northern Dynasty, and Hunter Dickinson; and a former investor in the Pebble project.

We sought to interview EPA and other federal agency employees. EPA and the federal agencies, through the U.S. Department of Justice, declined to make current government employees available because of ongoing Congressional and Inspector General reviews and pending litigation with the Pebble Partnership. I did not consider that surprising. EPA, through its legal counsel, also requested that I cease my independent review. I declined to do so.

We did interview several former EPA employees, including Christine Todd Whitman (Administrator from 2001-2003), Michael Leavitt (Administrator from 2003-2005), and Robert Perciasepe (Deputy Administrator from 2009 to February 2013 and July 2013 to 2014; Acting Administrator from February 2013 to July 2013), and several former EPA Assistant Administrators for Water. I am grateful for the time that all of the interviewees shared with me and my team.

Notwithstanding EPA's refusal to cooperate, the report does include EPA's position on a wide range of relevant issues. EPA has articulated its views in the public record, and I have done my best to provide a fair representation of those views in this report. Additionally, many stakeholders of all persuasions have provided written accounts of their views. My team also visited the Pebble Deposit Area, an operating open-pit copper mine, and a closed mine site, to observe the Bristol Bay watershed and the effects of mining.

From this work, we first developed the Background Facts set forth in this report. Similar to the "red team/blue team" approach used for the preliminary review, I again divided my team to ensure that the most salient facts both defending and asserting the notion that EPA acted fairly were included in that section. The Background Facts, set forth below, informed the conclusion that I ultimately reached.

#### **BACKGROUND FACTS**

The following sections discuss the facts found during the course of my review which inform my ultimate conclusion and observations. Appendix A provides a chronology of key events discussed in this report. We begin with a discussion of EPA and the alternative regulatory approaches set forth in the Clean Water Act to address potential development projects, as those are the crux of the issue upon which I was asked to comment. We then describe the Bristol Bay region, its people, and other interested stakeholders. Of particular interest are the State of Alaska, the owner of the land in which the Pebble deposit is located; the Alaska Natives, who have inhabited the region for millennia and whose salmon-centered culture and subsistence way of life may be threatened by potential large-scale mineral development at the Pebble Deposit Area; and the Pebble Partnership, which owns the right to mine the Pebble Deposit Area.

We next review the Pebble Partnership's exploration and development activities in the Pebble Deposit Area, as well as EPA's interaction with the Partnership, many other state and federal agencies relevant to potential development in the Pebble Deposit Area, area residents, Alaska Native tribes and tribal organizations, and environmental non-governmental organizations. Here we note events reflecting how the Agency fulfilled its trust responsibility with respect to federally-recognized tribal organizations, the array of views expressed about potential large-scale development in the Bristol Bay watershed, and how EPA decided to move forward with an assessment of the effects of mining in one part of that region. We describe the process through which EPA developed the BBWA, the document upon which EPA ultimately based its Section 404(c) action. We then examine the regulatory action EPA took with respect to the potential development of a mine in the Pebble Deposit Area and note the lawsuits and inquiries that ensued. The report ends with my conclusion as to EPA's actions in connection with its evaluation of potential mining in the Bristol Bay watershed and related observations.

## I. EPA, THE PERMIT EVALUATION PROCESS UNDER CLEAN WATER ACT SECTION 404, EPA'S REGULATORY AUTHORITY AND PROCESS UNDER SECTION 404(C), AND THE STATE OF ALASKA'S PERMITTING PROCESS

#### A. EPA

"Born in the wake of elevated concern about environmental pollution, EPA was established on December 2, 1970 to consolidate in one agency a variety of federal research, monitoring, standard-setting and enforcement activities to ensure environmental protection." The mission of EPA is to protect human health and the environment by ensuring that:

- "all Americans are protected from significant risks to human health and the environment where they live, learn and work;
- national efforts to reduce environmental risk are based on the best available scientific information;
- federal laws protecting human health and the environment are enforced fairly and effectively;
- environmental protection is an integral consideration in U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;
- all parts of society -- communities, individuals, businesses, and state, local and tribal governments -- have access to accurate information sufficient to effectively participate in managing human health and environmental risks;
- environmental protection contributes to making our communities and ecosystems diverse, sustainable and economically productive; and
- the United States plays a leadership role in working with other nations to protect the global environment."<sup>3</sup>

EPA is headed by an Administrator who oversees EPA's headquarters and its twelve separate offices, each of which addresses specific environmental issues or aspects of EPA's operation.<sup>4</sup> These Offices are supported by ten regions that each cover a discrete section of the country and that are overseen by Regional Administrators. Region 10 serves Alaska, Idaho, Oregon, Washington, and 271 Native tribes.<sup>5</sup>

One of EPA's twelve offices, the Office of Water, is tasked with "ensur[ing] drinking water is safe, and restor[ing] and maintain[ing] oceans, watersheds, and their aquatic ecosystems

to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants and wildlife." The Office of Water is also responsible for implementing the Clean Water Act. The Office of Water includes: 1) the Office of Wetlands, Oceans and Watersheds, which "works to protect our marine and fresh water ecosystems, including watersheds, coastal ecosystems and wetlands;" and 2) the Office of Science and Technology, which "is responsible for developing sound, scientifically defensible standards, criteria, advisories, guidelines and limitations under the Clean Water Act and the Safe Drinking Water Act" and "produce[s] regulations, guidelines, methods, standards, science-based criteria, and studies that are critical components of national programs that protect people and the aquatic environment."

EPA is mandated to incorporate environmental justice into its programs, which includes considering "whether there would be 'disproportionately high and adverse human health or environmental effects' from its regulatory actions and to ensure meaningful involvement of potentially affected minority or low-income communities." EPA's goal is "to provide an environment where all people enjoy the same degree of protection from environmental and health hazards and equal access to the decision-making process to maintain a healthy environment in which to live, learn, and work." EPA affords heightened "trust responsibility" protection to federally-recognized tribes, mandating regular and meaningful consultation and collaboration with tribal governments in the development of its decisions. 11

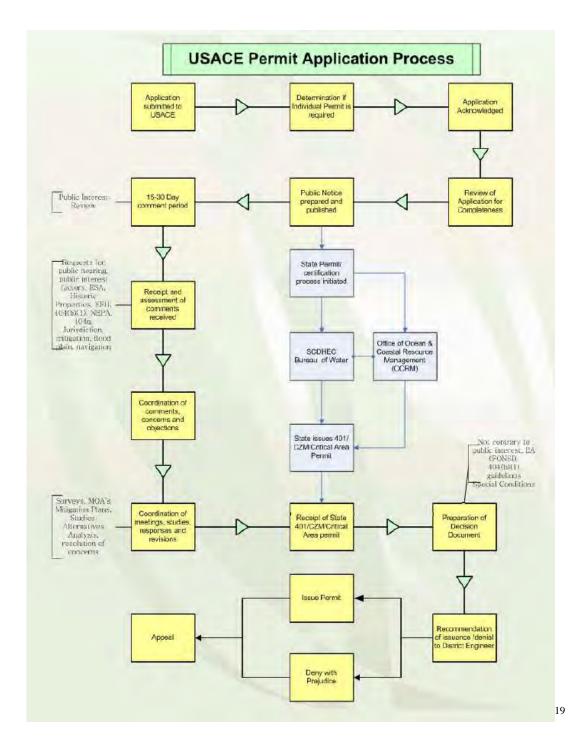
### B. The Corps' Process for Issuing Permits for Discharge into Waters of the United States

Congress passed the Clean Water Act in 1972 to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Under Section 404 of the Clean Water Act, the Corps "may issue permits . . . for the discharge of dredged or fill material into the navigable waters at specified disposal sites," such as would be needed for the Pebble

Partnership's development of a mine in the Pebble Deposit Area.<sup>13</sup> "[E]ach such disposal site shall be specified for each such permit by the [Corps] (1) through the application of guidelines developed by the [EPA] Administrator, in conjunction with the [Corps] . . . ."<sup>14</sup> The Corps and EPA have entered a Memorandum of Agreement, which confirms the Corps' role "as the project manager for the evaluation of all [Section 404] permit applications" and reiterates "the Administrator's authority under Section 404(c) of the Clean Water Act."<sup>15</sup>

As the lead agency for Section 404 permit evaluation, the Corps must "fully consider EPA's comments when determining compliance with the National Environmental Policy Act, the 404(b)(1) Guidelines, and other relevant statutes, regulations, and policies. The Corps will also fully consider EPA's views when determining whether to issue the permit, to issue the permit with conditions and/or mitigation, or to deny the permit." We refer to the process through which the Corps evaluates and decides a permit application as the "Permit/NEPA Process."

The usual Permit/NEPA Process begins with the developer submitting a permit application to the Corps, which then prepares and issues public notice of its receipt of the permit application and initiates the review process. A period for public comment and hearings follows. In addition, the Corps notifies relevant federal agencies, including the Secretary of the Interior, FWS, the National Park Service, EPA, the National Marine Fisheries Service, the state Historic Preservation Officer, and the Coast Guard.<sup>17</sup> The Corps considers, among other things: environmental effects and strategies to mitigate them; economic considerations; comments from relevant federal agencies, such as impacts on endangered species and essential fish habitat; historic property matters; and the Clean Water Act 404(b)(1) guidelines.<sup>18</sup> Development of a mine in the Pebble Deposit Area would require a Section 404 permit.



Because a Section 404 permit for a Pebble mine project would be a "major federal action," the Corps must comply with the requirements of NEPA and regulations developed by the Council on Environmental Quality.<sup>20</sup> After environmental assessment, the Corps will either issue a Finding of No Significant Impact or proceed to develop an environmental impact statement, also referred to as an "EIS." NEPA and applicable regulations call for, among other

things, consideration of the views of cooperating agencies, including EPA and the applicable state agencies.<sup>21</sup> NEPA mandates that the Corps, as the lead agency, coordinate with interested parties, including the project proponent, commission further appropriate studies, prepare an environmental assessment, consider beneficial effects of the proposed project, assess mitigation plans, and evaluate alternatives.<sup>22</sup> The chief of the Corps' regulatory program has summarized this procedure as follows:

Activities that do not meet the criteria for a general permit are typically processed under the 'standard individual permit' procedures. These procedures include issuance of a public notice. preparation of a project specific decision document in accordance with National Environmental Policy Act requirements, and application of the Section 404(b)(1) Guidelines. Regulatory program personnel in Corps districts work with applicants to avoid and minimize impacts to waters of the United States and to develop satisfactory compensatory mitigation plans unavoidable impacts to aquatic resources. For individual permit applications, the Corps conducts a full public interest review, balancing the anticipated benefits against the anticipated impacts. The Corps can only authorize those activities that are not contrary to the public interest, and must authorize the least environmentally damaging practicable alternative, so long as that alternative does not have other significant adverse environmental consequences.

When implementing the Corps regulatory program, the Corps is neither an opponent nor a proponent for any specific project; the Corps' responsibility is to make fair, objective, and timely permit decisions. The Secretary of the Army, through the Chief of Engineers, has delegated responsibility for making final decisions on permit applications to the Corps District Commanders. <sup>23</sup>

Assuming the affected state certifies (or delegates) a finding that any such discharge will comply with Clean Water Act requirements, pursuant to Section 401, the Corps will issue a permit and impose conditions or it will deny the permit application with prejudice. In either case, there is an opportunity for a legal challenge of the Corps' decision by an aggrieved party with standing.<sup>24</sup>

The Natural Resources Defense Council ("NRDC") has endorsed the NEPA process as "democratic at its core," explaining that:

In many cases, NEPA gives citizens their only opportunity to voice concerns about a project's impact on their community. When the government undertakes a major project such as constructing a dam, highway, or power plant, it must ensure that the project's impacts – environmental and otherwise – are considered and disclosed to the public. And because informed public engagement often produces ideas, information, and even solutions that the government might otherwise overlook, NEPA leads to better decisions – and better outcomes – for everyone. The NEPA process has saved money, time, lives, historical sites, endangered species, and public lands while encouraging compromise and cultivating better projects with more public support.<sup>25</sup>

Other environmental organizations also have touted the benefits of the NEPA process:

- Earthworks: "When the National Environmental Policy Act (NEPA) was enacted in 1969 by an overwhelming bi-partisan majority and signed by President Richard Nixon, the goal of the legislation was to create a process by which the environmental impacts of large industrial projects could be explored, weighed and eventually mitigated. NEPA makes sure that in addition to government and industry input, everyday citizens can take part in the development and oversight of projects that affect our social, economic, and environmental health. The NEPA process provides citizens an opportunity to learn about proposed federal actions and offers agencies an opportunity to receive valuable input from the public;" 26
- *The Wilderness Society*: "Just as Congress envisioned 40 years ago, NEPA, when properly implemented, truly does lead to more informed and improved government decision-making;" <sup>27</sup>
- National Wildlife Foundation: "The resulting National Environmental Policy Act (NEPA) was designed not to halt new federal construction, but to ensure that their impacts on the environment were known and understood beforehand and that every federal project was in the public interest. . . . The presence of NEPA has helped encourage smarter, less reckless construction, and has helped preserve the habitats of animals like the Florida panther. By guaranteeing public participation, NEPA has given millions of Americans the opportunity to engage in the federal decision making process. The law requires agencies like the Army Corps of Engineers to conduct a careful review of what their projects will mean for nearby waters and wildlife, helping prevent bad ideas from becoming a reality. That careful review process is part of the reason countless acres of wetland habitat were saved from the poorly thought out and expensive Yazoo Pumps Project. What communities can learn from these reviews is also the reason I can still visit the park where Elvis first performed for a paying audience. The National Environmental Policy Act is our chance to see the consequences of federal action

laid out before us, and gives the public and government a chance to decide whether we want to proceed."<sup>28</sup>

## **C. Section 404(c)**

Section 404(c) of the Clean Water Act authorizes EPA to "prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site . . . whenever [the Administrator] determines . . . that the discharge of such materials into such area will have an unacceptable adverse effect" on the environment.<sup>29</sup> EPA may initiate the Section 404(c) process whenever it has "reason to believe" based on available information that "an unacceptable adverse effect' could result from the specification or use for specification of a defined area for the disposal of dredged or fill material[.]" EPA's initiation of a Section 404(c) process means that the Corps cannot issue a permit for fill in wetlands or streams associated with mining in the Pebble Deposit Area until EPA completes its Section 404(c) review.<sup>31</sup>

In 1979, EPA promulgated a four-step procedure for exercising its Section 404(c) authority.<sup>32</sup> The process begins when the Regional Administrator announces an intention to issue a notice of proposed determination and gives notice to the Corps, the land owner, and applicant.<sup>33</sup> If, within 15 days, these parties cannot persuade the Regional Administrator "that no unacceptable adverse effect(s) will occur" or that they intend "to take corrective action to prevent an unacceptable adverse effect," the Regional Administrator then publishes a notice of a proposed determination and offers a public hearing.<sup>34</sup> Following the public participation period, the Regional Administrator must decide whether to "withdraw the proposed determination or prepare a recommended determination" based on the likelihood of unacceptable adverse effects.<sup>35</sup>

If the Regional Administrator decides to withdraw the proposed determination, he must advise the Administrator; await the Administrator's further review and final determination; and notify all persons who commented or participated in the hearing.<sup>36</sup> If the Regional Administrator

decides to move forward, the recommended determination is prepared and forwarded along with the administrative record to the Administrator for further review.<sup>37</sup> The final step, preparation of a final determination, begins with the Administrator's receipt of the recommended determination.<sup>38</sup> The Administrator consults with the Corps, the land or mineral rights owner, the State, and applicant, as appropriate, and issues a final determination within 60 days of receiving the Regional Administrator's recommended determination. The Administrator's final determination may affirm, modify, or rescind the proposed determination.<sup>39</sup> The Administrator or Regional Administrator may extend the time periods prescribed by the regulations governing the Section 404(c) process upon a showing of "good cause."<sup>40</sup>

Since passage of the Clean Water Act, EPA has exercised its authority under Section 404(c) thirteen times.<sup>41</sup> EPA invoked its Section 404(c) authority in those instances only after receipt of a permit application that described the scope and details of the project being proposed, the anticipated environmental impact, and techniques to be employed to mitigate or control that impact.<sup>42</sup> In an internal September 2010 document relating to its evaluation of the Bristol Bay watershed, EPA acknowledged that initiating a preemptive Section 404(c) action before the filing of a permit application for a development project had "[n]ever been done before in the history of the CWA."

# D. Comparison of the Corps' Section 404 Permit Evaluation Process with EPA's Section 404(c) Process

A distinct feature of EPA's authority under Section 404(c) is that regulations allow the Agency to initiate a process to deny or restrict the use of an area for the disposal of dredged or fill material before a project proponent has submitted a permit application, although the Partnership has challenged this authority.<sup>44</sup> The Corps' evaluation of the suitability of a site for the disposal of dredged or fill material, however, is based on specific project details in a permit application.<sup>45</sup> EPA has expressed its view that preemptive action under Section 404(c) "will

facilitate planning by developers and industry. It will eliminate frustrating situations in which someone spends time and money developing a project for an inappropriate site and learns at an advanced stage that he must start over. In addition, advance prohibition will facilitate comprehensive rather than piecemeal protection of wetlands."<sup>46</sup>

Another fundamental difference between EPA's Section 404(c) process and the Permit/NEPA Process is that a determination pursuant to Section 404(c) does not trigger application of NEPA and, while "consideration should be given to the relevant portions of the Section 404(b)(1) guidelines," EPA has explained that not all facets of the guidelines need be considered because they were designed to address "a greater range of resources than 404(c) is." Furthermore, while economics are one of many public interest factors the Corps will take into consideration if relevant to the proposal under review, EPA need not do so when acting under Section 404(c) and did not do so here. EPA Region 10 has stated that "[t]he permit and NEPA processes could generate a great deal more detailed environmental information and analysis upon which to base a [regulatory] decision" than proceeding with a preemptive Section 404(c) action.

#### E. The State of Alaska's Process for Issuing Permits

In addition to obtaining a federal Section 404 permit, the Pebble Partnership would also have to obtain permits from Alaska agencies.

Mine Permitting. ADNR administers a large mine permitting process which focuses on multiple aspects of potential mines, ranging from solid waste disposal to the financial security of the mining operation.<sup>50</sup> There is no single "mine permit" in Alaska; rather, there are about 37 permits required from various state agencies before a proposed mine may begin construction and operation.<sup>51</sup> Examples of the agencies involved are ADNR (operational plan approval, reclamation and bonding requirements, dam safety certification, cultural resources protection,

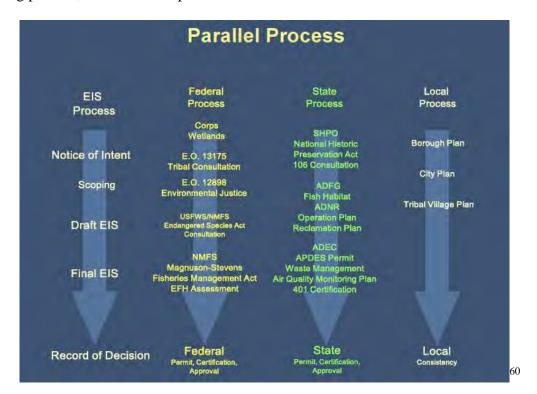
and surface/ground water monitoring plan approval), Alaska Department of Fish and Game (fish habitat and fishway permits), Alaska Department of Environmental Conservation (water discharge permits, air quality permits, and integrated waste management permits for disposal of tailings, waste rock, and wastewater), and the Alaska Department of Transportation (rights of way). A proposed project plan typically evolves during the permitting process in an effort to satisfy agency requirements.<sup>52</sup> This iterative process of permitting and agency review is coordinated by ADNR's Large Mine Permitting Team, which serves as "the lead agency for all matters relating to the exploration, development, and management of mining," and, in that capacity, "coordinate[s] all regulatory matters concerning mineral resource exploration, development, mining, and associated activities."<sup>53</sup>

Mine Safety and Environmental Protection. State permits require specified undertakings to address mine safety and environmental protection. These include continued monitoring of surface waters, groundwater, and tailings and waste rock disposal; approval of a reclamation plan that will return the mine site to a condition compatible with the post-mine land use; financial assurance to ensure closure and reclamation can be performed if the operator is unable; dam safety approvals issued by ADNR; and periodic environmental audits.<sup>54</sup> These requirements entail additional project costs. ADNR's Large Mine Permitting Team advises that, as a result of the economic and technical challenges, "[v]ery few exploration projects ever become [a] mine."<sup>55</sup>

<u>Dam Safety</u>. The Alaska Dam Safety Program, required by Alaska law, addresses the integrity of tailings storage facilities ("TSFs").<sup>56</sup> The Safety Program is a cooperative effort among ADNR, the permit applicant or holder, and other interested stakeholders.<sup>57</sup> It encourages communication between stakeholders and seeks "to protect life and property in Alaska through the effective collection, evaluation, understanding and sharing of the information necessary to

identify, estimate and mitigate the risks created by dams."<sup>58</sup> The Safety Program is responsible for granting certificates of approval for both the construction and operation of dams in Alaska. These certificates are granted after a review of geologic, structural, and hydrologic data (for construction certificates), as well as foundation and construction quality reports, operations and maintenance plans, and emergency action plans for established dams (for operations certificates). Certificates are renewable, subject to meeting periodic inspection standards.<sup>59</sup>

EPA depicted the concurrent Permit/NEPA Process, including the EIS process; the state permitting process; and local area plan review as follows:

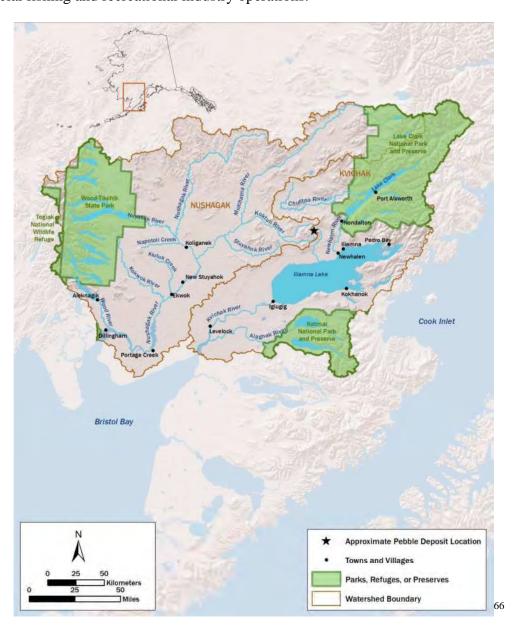


## II. THE REGION, ITS PEOPLE, AND THE RIGHTS HOLDERS

#### A. The Bristol Bay Watershed

The Pebble Deposit Area is located in the Bristol Bay watershed. Opening to the Bering Sea, Bristol Bay is located in southwestern Alaska.<sup>61</sup> The surrounding land area includes six major watersheds that drain into Bristol Bay, namely (from West to East) the Togiak, Nushagak, Kvichak, Naknek, Egegik, and Ugashik River watersheds, as well as a series of smaller

watersheds spanning the North Alaska Peninsula.<sup>62</sup> This area encompasses more than 40,000 square miles, roughly the size of the State of Ohio.<sup>63</sup> The Bristol Bay watershed also contains Iliamna Lake, which is "the largest undeveloped lake in the United States."<sup>64</sup> The Nushagak and Kvichak River drainages of the Bristol Bay watershed are largely "undisturbed by significant human development;" the region is "virtually roadless" and development in the area consists only of a small number of villages and towns and related infrastructure to support them and the commercial fishing and recreational industry operations.<sup>65</sup>



The Bristol Bay watershed houses one of the largest commercial sockeye salmon fisheries in the world.<sup>67</sup> While sockeye salmon are most common in the region, four other species of wild Pacific salmon exist in the Bristol Bay watershed: coho or silver, Chinook or king, chum or dog, and pink or humpback.<sup>68</sup> These fish are "anadromous," meaning that they are born in fresh water, spend most of their lives in the sea, and return to fresh water to spawn.<sup>69</sup> More than half of the smaller watersheds within the Nushagak and Kvichak River watersheds contain at least one salmon species, while 12% contain all five salmon species.<sup>70</sup> The Nushagak and Kvichak River watersheds are home to 29 different fish species, 17 of which have been observed specifically in the South Fork Koktuli River, the North Fork Koktuli River, and the Upper Talarik Creek watersheds, the headwaters of which surround the Pebble Deposit Area.<sup>71</sup>

The region is home to a multitude of wildlife, such as upland birds, brown bear, caribou, moose, bald eagles, and gray wolves.<sup>72</sup> EPA has described the status of endangered species in these watersheds as follows:

[T]here are no known breeding or otherwise significant occurrences of any species listed as threatened or endangered under the Endangered Species Act, nor is there any designated critical habitat. However, one of two freshwater harbor seal populations in North America is found in Iliamna Lake (Smith et al. 1996). The National Oceanic and Atmospheric Administration is currently conducting a status review on Iliamna Lake seals to determine if they represent a distinct population segment that may warrant protection under the Endangered Species Act. 73

Four endangered species have been observed near Cook Inlet, where a deep water port may be built in connection with the development of a Pebble mine.<sup>74</sup> These are the Steller's Eider (a type of duck), Sea Otter, Steller's Sea Lion, and the Cook Inlet Beluga Whale.<sup>75</sup> Harbor seals, which are protected under the Marine Mammals Protection Act, have also been observed near the inlet.<sup>76</sup>

Trout Unlimited, an environmental organization, has described the region as follows:

The Bristol Bay region in southwest Alaska is pristine wild country stretching from the rugged snow-capped peaks of the Alaska Range, across tundra and wetlands laced with rivers that flow into the Bay, providing the best wild salmon habitat on Earth. The hour and a-half flight from Anchorage to Bristol Bay takes visitors on a breath-taking journey across two national parks (Katmai and Lake Clark), Alaska's largest state park (Wood-Tikchik), three active volcanoes (Augustine, Iliamna and Redoubt), Lake Iliamna (Alaska's largest lake) and countless winding rivers and tundra lakes. Bristol Bay and its watershed are truly inspiring for their beauty and bounty of fish and wildlife.<sup>77</sup>

#### **B.** The Pebble Deposit

The Pebble deposit is a low-grade mineral deposit containing primarily copper, molybdenum, and gold-bearing rocks.<sup>78</sup> The deposit is described by ADNR as one of the world's largest copper resources.<sup>79</sup> The Pebble Partnership estimates the deposit to contain approximately 80.6 billion pounds of copper; 5.6 billion pounds of molybdenum, and 107.4 million ounces of gold.<sup>80</sup>



The Pebble Deposit Area (pictured above) lies approximately 200 miles southwest of Anchorage, 60 miles west of Cook Inlet, and 17-19 miles from the nearest communities of Iliamna, Newhalen, and Nondalton.<sup>81</sup> The deposit is located in the Bristol Bay watershed at the headwaters of two water bodies which drain into Bristol Bay: the Koktuli River, which is part of the Nushagak river system, and the Upper Talarik Creek, which is part of the Kvichak river system.

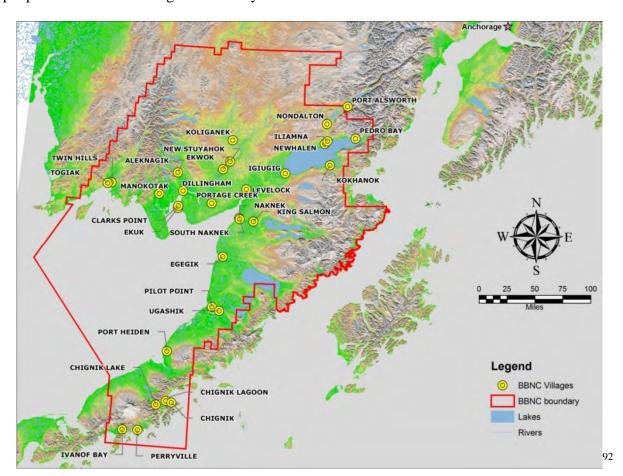


The western portion of the Pebble deposit was discovered in 1988 and contains 4.58 billion tons of mineral deposits that begin near the surface and extend approximately 2,000 feet below ground.<sup>83</sup> As exploration continued, additional deposits were located in 2005 to the east that raised that total to approximately 11.9 billion tons of minerals.<sup>84</sup> The mineral deposits in the eastern region of the Pebble Deposit Area are deeper underground, extending 5,000 feet below

the surface. 85 If mined, these minerals would likely be extracted using a combination of open-pit and underground mining techniques.

## C. Demographics and Socio-Economic Characteristics of the Region

There are 229 federally-recognized tribal governments in Alaska, 19 distinct language areas, and six cultural regions. Approximately 70% of the 7,000 inhabitants of the Bristol Bay region are Alaska Natives, predominantly Yup'ik, Dena'ina, and Alutiiq (Sugpiaq). Thirty-one different federally-recognized tribes call the Bristol Bay watershed home, and each of these is represented by a tribal government. Thirteen of those federally-recognized tribes reside in the Nushagak and Kvichak River watersheds. The Bristol Bay region includes 29 villages, all of which have fewer than 1,000 residents, with the exception of Dillingham. Approximately 150 people reside in the average community.



Many Alaska Natives in Bristol Bay maintain a subsistence-based lifestyle, which includes activities such as fishing, hunting, and berry picking. Residents in towns like King Salmon, Naknek, and South Naknek have reported at least 90% participation in subsistence activities. Sources of food obtained through subsistence activities include salmon, trout, grayling, moose, caribou, rabbit, porcupine, sheep, seal, and other game, fish, and plants[.] Of the subsistence harvest, salmon make up 52%, land mammals make up 31%, and non-salmon fish make up another 10%. There is an annual direct subsistence-related expenditure of approximately \$6.3 million in the Bristol Bay region. The subsistence harvest in rural communities constitutes approximately 2% of the fish and game harvested every year in Alaska. The wetland resources have supported a salmon-based culture and subsistence-based lifestyle for Alaska Natives in the watershed for at least 4,000 years.

This lifestyle is augmented by activities such as commercial fishing. The two main transportation hubs—Dillingham and King Salmon—have fairly stable year-round economies with commercial fishing, salmon processing, transportation, and government jobs providing most employment opportunities. For the other communities, "commercial fishing and subsistence activities are seasonal, and few other employment options exist." The salmon season "lasts three months (late May through August), and the salmon returns and prices fluctuate seasonally;" the economic conditions of Bristol Bay communities vary accordingly. 102

Commercial salmon fishing dominates the private sector economy of the Bristol Bay region. Annual Bristol Bay sockeye salmon harvests fluctuated between 10 and 44 million fish between 1980 and 2010. Sockeye salmon "account for about 94% of the volume of Bristol Bay salmon harvests and an even greater share of the value. The Nushagak and Naknek-Kvichak districts account for approximately 60% of Bristol Bay's commercial sockeye

harvest. Between 2000 and 2010, "Bristol Bay harvests were 62% of all Alaska sockeye salmon harvests and 45% of total world production for the species." 107

The commercial fishing sector in Bristol Bay generates about \$300 million annually and employs more than 11,000 full- and part-time workers at the season's peak (as of 2009, according to data used in the BBWA). However, there is a "wide variation from year to year in catches, prices, earnings, employment and other measures of the fishery," such that "[n]o single recent year or period is necessarily 'representative' of the fishery or what it will look like in the future." A number of factors affect the fishery's value, including, "politics, value of the US dollar against [foreign currencies], international finance, over capitalization, increasing debt loads, farmed fish, high fuel costs, waning fish stocks, [and] poor fish returns to the rivers and streams[.]" These issues, "coupled with the restrictions in the Limited Entry Permit system have decreased the number of locally owned permits, which increases the number of people unable to participate and left on the fringe."

The Bristol Bay watershed includes many federal and state parks, refuges, and recreation sites and is considered a world-class destination by recreational fishermen. After commercial fishing, local recreation—including sport fishing, hunting, tourism, and wildlife viewing trips—is the second most important private economic sector in the region. Estimates for annual expenditures related to activities such as kayaking, wildlife viewing, and bird watching, vary due to the limited availability of data and have ranged from \$17.1 million to \$104.2 million. Of the 41,000 people estimated to have visited southwest Alaska for recreation activities in 2009, only about 10% were residents of Alaska. Approximately 29,000 sport-fishing trips were made to the region in 2009, including 12,000 by people living outside the State of Alaska and 4,000 by Alaska residents who do not live in the Bristol Bay region. In 2009, non-residents

spent approximately \$50 million in Alaska for the purpose of fishing the region's waters. <sup>117</sup> Similarly, in 2009, hunting activities were responsible for \$8.2 million in economic activity. <sup>118</sup>

The regional economy also relies on the public sector and other segments of the private sector for employment. The public sector is the largest employer in southwest Alaska, and, as of September 2011: local government employed 40% of workers; trade, transportation, and utilities employed 16% of workers; education and health services employed 13% of workers; and manufacturing, including seafood processing, employed 9% of workers. 120

Despite the fishing and tourist industries, the region faces high unemployment, high cost of living, and high energy costs. <sup>121</sup> More than a third of the population of many local villages live at or below the poverty level. <sup>122</sup> The village of Nondalton has the lowest incomes, with 48% of the village's population living below poverty level. <sup>123</sup> An analysis conducted by the Alaska Department of Labor and Workforce Development reported that "one in five southwest Alaska working-age residents made an unemployment insurance claim at some point in 2010." Of the 5,394 working-age residents of Bristol Bay in 2011, only 63% worked that year and "just over 35% of those worked all four quarters of 2011."

A visit this past summer to a store in Iliamna found the following prices: 1/2 gallon milk: \$12.95; 1 lb. strawberries: \$15; and 1 set of celery stalks: \$10.<sup>126</sup> Gasoline cost more than \$5 per gallon. High fuel costs, in turn, "drive the costs of all products and services up and hinder the economy, which affects the availability of jobs and investments in the Region." Further, "lack of capital along with the high cost of energy, lack of infrastructure, [and] long distance to markets" limit regional business development. 129

As a result of these conditions, people are leaving their villages for other locations with better chances of employment. This has led to a decline in school populations, which places schools at risk for closure if they fall below the 10-student minimum needed to receive state

funding.<sup>131</sup> Recently, the region has endured multiple school closures (including those for Pedro Bay and Clark's Point) because of declining enrollments.<sup>132</sup> Not surprisingly, school closures often cause a rapid decline in village population.<sup>133</sup>

## D. Ownership and Rights to the Land and Minerals of the Pebble Deposit Area

#### 1. The State of Alaska

The Pebble Deposit Area lies within land owned by the State of Alaska. When Alaska became a state in 1959, the vast majority of its land fell under United States federal authority. Through the Alaska Statehood Act, Congress authorized the State to select 103,350,000 acres of public lands for ownership. These land grants were "made upon the express condition that . . . the mineral lands so granted shall be subject to and contain reservation to the State of all the minerals in the lands . . . , together with the right to prospect for, mine, and remove the same." 137

The Alaska Statehood Act permits the State to lease the mineral deposits contained within the lands it owns. The potential for mineral extraction was one of the main reasons that the State selected the lands in and around the Pebble Deposit Area. According to the Attorney General of Alaska, the State selected lands with natural resource potential to provide for the economic welfare of the residents of Alaska. Alaska.

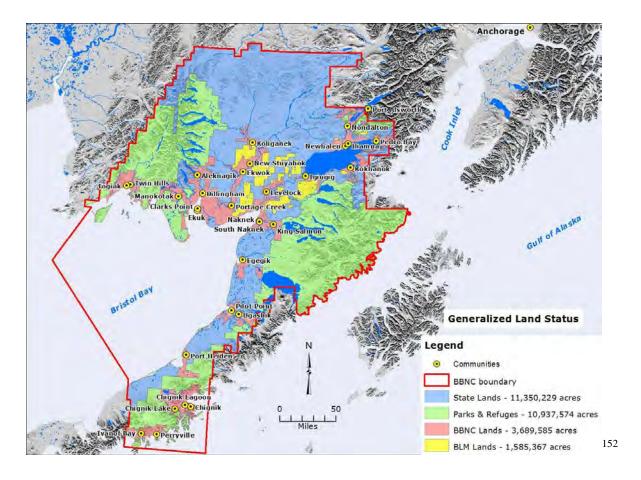
The Pebble Deposit Area is situated within Region 6 (Nushagak, Mulchatna) of the ADNR's Bristol Bay Area Plan for State Lands in an area designated for mineral exploration and development. The State published plans in 1984 and 2005. The 1984 plan classified the Pebble Deposit Area jointly for public recreation and oil and gas or mineral uses. The new plan issued on April 19, 2005, altered the criteria underlying the classification system. The 2005 plan reclassified solely for mineral development much of the land formerly co-classified for recreation/habitat and mineral development, including the Pebble Deposit Area. The 2005 plan reclassified solely for mineral development, including the Pebble Deposit Area.

Interested parties expressed concerns that the 2005 plan unlawfully relaxed restrictions on mineral development. On May 5, 2009, plaintiffs, including six Bristol Bay tribes, a commercial association, and Trout Unlimited, filed suit against the State of Alaska and ADNR seeking a declaration that the 2005 plan was unlawful. The case was settled, requiring ADNR to receive public input and make proposed revisions to the 2005 plan. On September 5, 2013, ADNR adopted a revised plan that altered the designations of some areas. The vast majority of the Pebble Deposit Area remained designated exclusively for mineral development.

### 2. Alaska Native Corporations

There are 24 Alaska Native Village Corporations in the Bristol Bay region. These village corporations were formed to invest and manage the surface rights to Alaska Native-owned land in the Bristol Bay area. Two Alaska Native Village Corporations, Iliamna Natives Ltd. and Pedro Bay Corporation, hold surface rights to a significant amount of land along an area under evaluation for a transportation corridor and power infrastructure development in connection with a potential Pebble mine. 148

Two Alaska Native Regional Corporations maintain subsurface land and resource interests near the Pebble Deposit Area: Bristol Bay Native Corporation ("BBNC") and the Cook Inlet Region, Inc.<sup>149</sup> BBNC holds subsurface rights to some 3 million acres of land within the Bristol Bay region.<sup>150</sup> The Cook Inlet Region, Inc. owns subsurface rights to 1.3 million acres of land on the east and west side of Cook Inlet.<sup>151</sup>



#### 3. Owners of the Mineral Claims

The Pebble Deposit Area was first explored for potential mineral development between 1985 and 1997 by Cominco America Incorporated. Northern Dynasty obtained an interest in the mineral claims that comprise the Pebble Deposit Area in 2001 and by 2006 owned a 100% interest in those mineral claims, subject to royalties on production. 154

In 2006, Rio Tinto purchased a 9.9% stake in Northern Dynasty for \$87.5 million. The following year, Rio Tinto increased its share to over 19%. Also in 2007, a wholly-owned affiliate of Northern Dynasty and a wholly-owned subsidiary of Anglo American plc established the Pebble Partnership to develop a mine at the Pebble Deposit Area. To maintain its 50% interest in the Pebble Partnership, Anglo American was required to continue its staged investment of \$1.425 to \$1.5 billion to advance the Pebble Project toward permitting and operations. At the time, Northern Dynasty and Anglo American had equal rights to manage,

operate, and control the Pebble Partnership. By the end of 2010, Anglo American had invested approximately \$325 million of its staged requirement. 159

On September 16, 2013, after a review "to prioritise capital to projects with the highest value and lowest risks within [the company's] portfolio," Anglo American announced that it was "withdrawing from the Pebble copper project in Alaska," leaving Northern Dynasty as the sole owner of the Pebble Partnership. In April 2014, Rio Tinto announced that it would "gift its 19.1 per cent shareholding in Northern Dynasty . . . to two local Alaskan charitable foundations," after conducting a "strategic review" of its global mining interests. In Pebble Partnership has not announced a new partner for the Pebble project.

To date, the Pebble Partnership has not filed a permit application. Throughout its years of development of activities, however, the Partnership has stated its intent to do so.

## III. THE PEBBLE PARTNERSHIP'S PRE-DEVELOPMENT WORK AND THE BEGINNINGS OF FEDERAL AND STATE REGULATORY INTEREST

#### A. Baseline Data Collection

Building from work performed by Cominco in the late 1980s and early 1990s, Northern Dynasty began a program of studies in 2004 to understand and document the baseline physical, biological, and socio-economic conditions in the Pebble Deposit Area. The Pebble Partnership continued these studies and data collection efforts, some of which remain ongoing, with the intention that the resulting body of information would inform mine design, assist with stakeholder relations, and address permitting requirements. 164

The Pebble Partnership utilized the services of over 100 scientists from more than 40 environmental consulting firms to collect and analyze data and to perform studies. The Pebble Partnership published the results of the studies conducted from 2004 through 2008, some with updates through 2010, in what it has termed the environmental baseline document ("EBD"). The Partnership provided a copy of the EBD to EPA in December 2011, and it is publicly

available online.<sup>167</sup> The document comprises more than 25,000 pages of data discussed in 53 chapters and seven appendices that detail the ecological characteristics of the Bristol Bay region.<sup>168</sup> Except for the introduction, the contents of the EBD were authored by consultants retained by the Partnership. The Partnership spent more than \$100 million to develop the EBD.<sup>169</sup> The Partnership is presently working on a second volume of the EBD, which will disclose data developed through 2012.

The Pebble Partnership has been criticized for publishing this data compilation in .pdf format. Government representatives and environmental non-governmental organizations have asserted that this format impedes their ability to use this data to conduct independent analyses.<sup>170</sup> The Pebble Partnership refused repeated requests for the wholesale disclosure of raw EBD data in a more user-friendly format.<sup>171</sup> According to the Partnership, concern over the interpretation and further use (or misuse) of raw, "manipulatable" data by members of the public fueled desires to safeguard this information.<sup>172</sup> The Partnership contends that disclosure of raw data is not standard industry practice before the permitting process starts.<sup>173</sup>

While the Pebble Partnership was developing its environmental baseline data, environmental non-governmental organizations also were commissioning studies of the Bristol Bay watershed. The Nature Conservancy, Trout Unlimited, the Wild Salmon Center, and others contributed to the available literature describing the economic importance of the commercial salmon fishery, recreational hunting and fishing, and ecotourism, as well as the biological and physical characteristics of the region and the effects large-scale mining might have on the watershed. Appendix B lists a sampling of reports prepared since 2006.

# B. The Memorandum of Understanding with ADNR and the Technical Working Groups

Beginning in 2004, Northern Dynasty, and later the Pebble Partnership, met periodically with federal and state agencies to discuss baseline environmental study plans and results.<sup>174</sup>

These contacts included annual, multi-day meetings between 2004 and 2008 and in 2012.<sup>175</sup> Ten state and federal agencies participated in these meetings.<sup>176</sup>

In a memorandum of understanding dated April 30, 2004, Northern Dynasty agreed to reimburse ADNR and other state agencies for the time and resources they would expend "in review of specific tasks related to the Pebble Gold-Copper Project and the processing of State permits and approvals necessary for the permitting, operation and reclamation of the Pebble Gold-Copper Project[.]"<sup>177</sup> In the reimbursement agreement, which Alaska state law required, Northern Dynasty acknowledged that the memorandum did not guarantee that it would "receive any permit, or other authorization(s), or a favorable review under any particular conditions[.]"<sup>178</sup> The memorandum, which was renewed annually by Northern Dynasty through 2007 and by the Pebble Partnership from 2008 through 2015, reflects total reimbursements exceeding \$2 million through 2011.<sup>179</sup>

In 2006, Northern Dynasty proposed that the state agencies participate in technical working groups ("Working Groups") that would serve as "forums for discussion of technical issues related to conducting studies of the proposed mine site." Northern Dynasty sponsored the state agencies' participation in the Working Groups under their memorandum of understanding. After gaining the State's acceptance of the Working Groups, Northern Dynasty and the State of Alaska invited relevant federal agencies to participate, and they agreed to do so. A steering committee comprised of "the primary leads from participating state and federal agencies, and [the Partnership] as applicant" oversaw the Working Groups. The initial seven Working Groups focused on surface and groundwater quality, wildlife, baseline multimedia trace elements, geochemistry/metal leaching and acid rock drainage, fish, aquatic habitat assessment, and hydrology/instream flow. Ultimately, 12 groups were formed—11

Working Groups, plus a steering committee. All meetings were open to the public, and ADNR posted final steering committee and Working Groups meeting minutes on its website. 185

By late 2008, the federal and state agencies perceived that "the [Working Group] process [was] not working well[.]" They expressed concerns over the delay in receiving meeting minutes and with their accuracy, and stated their perception that the Pebble Partnership was unwilling to supply information necessary for their effective participation in efforts to develop baseline environmental data that would prove adequate for permitting purposes. For example, the agencies complained that the Partnership would not respond to comments or suggestions about potential studies and study design and foreclosed meaningful input by providing study plans with too little or no time for the agencies to respond and that the Partnership shared study results without also supplying sufficient contextual information. <sup>188</sup>

In January 2010, the Partnership suspended the Working Groups, explaining that "many of the environmental studies have been completed, and others have been deferred until a preliminary mine development plan exists to serve as a design basis for monitoring studies." The Partnership committed to "complet[ing] studies that [were] already well underway and to maintain[ing] some limited baseline studies that [would] provide long term temporal data of regional environmental conditions."

### C. EPA Outreach and Role Commencing in the Early 2000s

Since 2003, EPA personnel have met and communicated with a variety of stakeholders: Alaska Native tribes and tribal organizations; environmental non-governmental organizations; other federal and state agencies; the Pebble Partnership; and other individuals and entities with views for or against a potential Pebble mine.<sup>191</sup>

EPA met with the Pebble Partnership at least 30 times between 2003 and 2013, including six joint visits to the proposed mine site, three meetings between the Partnership personnel and

the EPA Administrator, and ten meetings between the Partnership personnel and EPA's Regional Administrator. EPA personnel also attended meetings hosted by The Keystone Center, which between February 2008 and May 2013 conducted a stakeholder assessment and dialogue feasibility study sponsored by the Partnership. EPA personnel attended annual meetings hosted by the Partnership concerning its environmental baseline study program in 2004 through 2008 and in 2012 and attended periodic Working Group meetings between 2007 and 2010. Heginning in mid-2010, and continuing until the spring of 2014, phone calls between EPA's regional attorney and [the Pebble Partnership's] counsel occurred frequently—often every other week."

The Pebble Partnership has claimed that EPA had inappropriately close relationships with publicly-avowed mine opponents, and that EPA colluded with these opponents to develop a strategy to thwart mine development. 196

Records obtained through FOIA requests reflect hundreds of contacts between EPA and organizations and individuals opposed to the development of a Pebble mine dating back to at least 2007. For instance, Shoren Brown and other employees of Trout Unlimited communicated or met with EPA personnel about the potential Pebble mine more than 200 times between March 2009 and November 2013, including multiple meetings with Regional Administrator McLerran and Administrator Jackson. Geoffrey Parker, legal counsel to several Alaska Native tribes and tribal organizations and to environmental non-governmental organizations and individuals who oppose the Pebble mine, communicated or met with EPA personnel more than 80 times between September 2009 and February 2014. The substance of these contacts progressed from expressions of a point of view and interest in participating in the evaluation of a Pebble mine to substantive advice on legal and policy strategies and scientific information in support of the BBWA and a Section 404(c) action.

Wayne Nastri, a former EPA Regional Administrator who served as a consultant to BBNC, Trout Unlimited, and others on matters related to how a preemptive Section 404(c) action might apply with regard to Bristol Bay, communicated with EPA personnel more than 20 times between September 2010 and September 2013, facilitating several meetings with EPA management. Mr. Nastri urged EPA "to fulfill the Congressional mandate to protect our nation's waters . . . finalize the BBWA as soon as possible, and [] move forward with CWA § 404 action to protect Bristol Bay." In contrast, EPA declined the invitation of a Pebble Partnership consultant to meet with two retired EPA employees to discuss "fishery resource science problems" with the BBWA, noting that "[i]t would be inappropriate to provide comments to EPA through retired employees." A sampling of communications between EPA and mine opponents is attached at Appendix C.

EPA has rebutted the contention of collusion. EPA contends that contacts with interested stakeholders are standard procedure for Region 10 and serve "its mission to protect human health and the environment in Alaska while taking into consideration the views of those affected by any decision made by the EPA." EPA anticipated serving as a cooperating agency in the Permit/NEPA Process associated with any Pebble mine. Consistent with these regulatory expectations and obligations,

EPA was open to working with [the Pebble Partnership], along with other interested stakeholders in advance because the proposed project had the potential to have significant impacts to the environment and, in particular, fish populations and habitat surrounding the [Pebble Deposit Area]. The EPA hoped that early collaboration would result in better environmental data and decision-making once the project was proposed.<sup>202</sup>

Phil North, a wetlands ecologist with EPA Region 10's Alaska Aquatic Resources Unit, was a principal contributor to EPA's stakeholder engagement efforts.<sup>203</sup> One of his duties was to serve as the "Clean Water Act ('CWA') Section 404 expert" on the EPA Region 10 mining

team.<sup>204</sup> In that role, he coordinated the EPA technical team responsible for working with the Pebble Partnership "on the development of environmental baseline information in anticipation of the NEPA process" associated with permitting a Pebble mine.<sup>205</sup> Mr. North's other duties included "collaborat[ing] with interested parties on CWA 404 matters of importance to the EPA," which carried the expectation that he would "conduct outreach to or collaboration with federal, state, local, and tribal partners on protection and restoration of wetlands and other aquatic resources." Mr. North served as a "point of contact for native villages and tribes" and "was available to listen to their concerns, provide information on how EPA could help address their concerns, and provide advice on how to involve EPA."

## D. Local Opposition to Development of the Mine

Local opposition to large-scale mining in the Pebble Deposit Area is longstanding. Nunamta Aulukestai, a coalition of tribal corporations from the Bristol Bay region, has opposed the prospect of a Pebble mine since the group's incorporation in 2007. Its opposition efforts have included a lawsuit against the State of Alaska attacking the process of issuing miscellaneous land use and temporary water use permits issued in connection with the Pebble Partnership's exploratory drilling program, and compiling information about Alaska Native spiritual beliefs and subsistence practices to support EPA's BBWA.

The BBNC is another Alaska Native organization opposed to a mine in the Pebble Deposit Area. Established after passage of the Alaska Native Claims Settlement Act, the BBNC owns more than 3 million acres of land and has more than 9,900 members with "ancestral ties to the Bristol Bay region." According to the President and CEO of the BBNC, "[i]n 2007, more than two-thirds of BBNC shareholders opposed the proposed Pebble mine," and "nearly 85 percent of Bristol Bay residents and some 90 percent of Bristol Bay commercial fishermen also oppose[d] the proposed large-scale, metallic sulfide mine." On December 11, 2009, the

BBNC adopted a resolution declaring its opposition to "the development of the Pebble Mine given the unquantifiable impacts the Mine could have on the resources of the Bristol Bay region and BBNC[.]"<sup>211</sup>

The results of a survey of BBNC shareholders released in November 2011 indicated that "shareholder opposition to the proposed Pebble mine has grown to 81 percent over the past four years." Opposition to the Pebble mine across the BBNC's six sub-regions ranged from a low of 68% opposition to a high of 93%. The BBNC's leader described his organization's concerns to EPA Administrator Lisa Jackson during a meeting in Washington, D.C. on April 16, 2012. Joining him at the meeting were more than 40 representatives of sporting groups and businesses from Alaska and elsewhere in the United States. 215

In March 2012, the Bristol Bay Native Association—"a consortium of the 31 federally recognized tribes of the Bristol Bay region"—adopted a resolution supporting the "BBNC's recommendations and proactive EPA action to impose . . . restrictions on any Clean Water Act Section 404 permit related to the proposed mining of the Pebble ore deposit."<sup>216</sup>

## E. Local Support for "Due Process" for the Mine

There also has been local support to allow the Pebble Partnership to apply for permits needed to develop a mine. This support has been based largely on the potential economic benefits mining may yield for the region, as well as basic "due process" and sovereignty considerations. A number of these organizations have received financial support from the Partnership. Iliamna Natives Ltd., a "Village Corporation created by the Alaska Native Claims Settlement Act in 1971" that owns 77,000 acres of land near the proposed site of the mine, joined with the Pebble Partnership in support of "an opportunity for [their] shareholders to work and to have an economic opportunity in [their] village." The Alaska Peninsula Corporation, a merger of five different village corporations in the Bristol Bay region with rights to more than 150,000

acres of land near Iliamna Lake, Pedro Bay Corporation, Igiugig Native Corporation, Tanalian Inc. and Kijik Corporation also formed relationships with the Pebble Partnership.<sup>219</sup> There are "21 Alaska Native village corporations, tribes and borough governments in southwest Alaska [which] have passed resolutions supporting the Pebble Partnership's efforts to design an environmentally sound and socially responsible project, and advance through the federal and state permitting process."<sup>220</sup> Other Partnership outreach efforts have included an Elders Forum to exchange information with culture bearers and local youth about a potential mine and sponsorship of millions of dollars in local infrastructure and community projects.<sup>221</sup>

Iliamna Native Ltd. expressed its disagreement with EPA's proposed use of a preemptive Section 404(c) process, arguing that the decision would devalue its land and the lands of other Alaska Native Corporations, as well as infringe on their right to manage their lands. Alaska Peninsula Corporation also expressed support for "due process in order that Pebble can present its case for development through the comprehensive federal and state review under NEPA" so that it could "review the best available science as [they] consider the benefits, risks, and mitigation of risks, of the project." Alaska Peninsula Corporation said that the local economy had been "devastated by poor salmon returns to the [Kvichak] in the 1980's, [1990's] and most of 2000" leaving "no other economic opportunities for the local people who have been forced out of the commercial fishery."

## IV. EARLY DISCUSSIONS OF PREEMPTIVE APPLICATION OF SECTION 404(C) TO THE BRISTOL BAY WATERSHED

# A. EPA Personnel Begin to Consider Invoking Section 404(c) Preemptively for the Bristol Bay Watershed

EPA personnel began considering the use of Section 404(c) to prevent or limit development in the Bristol Bay watershed at least eight years before it filed its notice of intent to proceed with Section 404(c) in February 2014. The discussions included a range of scenarios,

with some involving a preemptive application of Section 404(c) and others not. Examples of early consideration of invoking Section 404(c) included:

- On June 2, 2005, a consultant of Northern Dynasty "had an 'off the record' discussion" with a Corps staff member who said that EPA's Phil North had told him that "EPA headquarters has already discussed using the 'C' on Pebble."
- On August 17, 2009, Mr. North stated to his colleagues that "[a]s you know I feel that both of these projects [one of which was Pebble] merit consideration of a 404C veto." 226
- On January 8, 2010, an attorney for certain local Alaska Native tribes emailed Mr. North at his personal email address asking for Mr. North's "suggestions, revisions or edits" with respect to seven attached, draft documents. The draft documents, some of which were labeled "attorney-client privileged," included a "request that EPA being [sic] a Section 404(c) process under the Clean Water Act" and a "joint letter from six federally-recognized tribes" to the Acting Regional Administrator for EPA Region 10 asking "that EPA use its authority under Section 404(c) of the Clean Water Act to protect waters, wetlands, fish, wildlife, fisheries, subsistence and other public uses in the Kvichak and Nushagak drainages of Southwest Alaska."
- On January 13, 2010, EPA Region 10 personnel briefed Administrator Jackson on the "Proposed Pebble Mine Project Alaska." Their presentation addressed "EPA's regulatory role," and "future options" available to EPA. A Section "404(c) veto either pre-emptive, during EIS, or after EIS" were among the future options presented. 229
- On February 2, 2010, Region 10 personnel presented to Susan Bromm, Director of EPA's Office of Federal Activities, a substantially similar version of the briefing made to Administrator Jackson the month before that repeats the Agency's "future options" concerning the Pebble project. <sup>230</sup>

#### B. Competing Requests of EPA Concerning its Section 404(c) Authority

By letter dated May 2, 2010, six federally-recognized tribes from the Bristol Bay watershed (the "Petitioning Tribes") asked EPA to "initiate a public process under Section 404(c) of the Clean Water Act, to protect waters, wetlands, fish, wildlife, fisheries, subsistence and public uses in the Kvichak and Nushagak drainages and Bristol Bay of Southwest Alaska from metallic sulfide mining, including a potential Pebble mine." The Petitioning Tribes' letter described the "cultural, ecological and economic importance of the Kvichak and Nushagak"

river drainages, and the magnitude of a potential Pebble mine," and it identified the Partnership's decision to terminate the Working Groups and perceived "infirmities in the State's 2005 Bristol Bay Area Plan" as grounds to initiate the Section 404(c) process. In the ensuing months, three more tribes, the BBNC, Bristol Bay Native Association, and hundreds of other businesses and organizations from 48 states and five countries also urged EPA to take action under Section 404(c).

Conversely, the State of Alaska, certain tribes, and other stakeholders informed EPA of their opposition to preemptive application of Section 404(c).<sup>234</sup> The Governor of Alaska asked Administrator Jackson to "decline" the tribes' petition "to invoke Section 404(c)," believing EPA action under Section 404(c) was "premature." The Governor stated that state and federal regulators had not yet received a permit application or mine designs, without which "EPA cannot evaluate the potential impacts or risks" of a potential mine, and that a "premature 404(c) determination effectively prohibiting mining in the area would disproportionately impact rural residents and Alaska Natives" who lived in the "economically depressed region" where mining might occur. <sup>236</sup> Believing "the 404(c) process is best used as a backstop for the other applicable provisions of Section 404, including application of the 404(b)(1) guidelines and the interagency coordination and dispute resolution procedures developed pursuant to 404(q)[,]" the Governor expressed that "[t]here is no purpose or advantage to initiating the process now."

The Pebble Partnership, four federally-recognized tribes from parts of the Bristol Bay watershed in close proximity to the Pebble Deposit Area, and other tribal organizations, policy groups, businesses, and individuals also asked EPA to refrain from acting pursuant to Section 404(c) "until formal mine permit applications have been submitted and an environmental impact statement has been developed."

## C. EPA's Options Paper

By May 2010, EPA Region 10 personnel internally "identified the Nushagak and Kvichak watersheds of Bristol Bay as candidates for a Section 404(c) prohibition or restriction under the Clean Water Act" and were developing an "options paper" to assess that potential decision. A draft of the "options paper" circulated on July 1, 2010, describes the "pros" and "cons" of three strategies for EPA to invoke its authority under Section 404(c): (1) "Participate in a permit and NEPA process as they unfold followed by a 404(c) determination;" (2) "Dedicate resources to developing an informal evaluation and record for potential 404(c) determination;" or (3) "Initiate 404(c) process – Intent to Issue Notice of Proposed Determination." Of these strategies, EPA Region 10's Management Lead for the Bristol Bay project stated that he was "going right to a recommendation for option 3." 241

The draft options paper indicates that "[the National Marine Fisheries Service, the National Park Service], and FWS staff in Alaska [had] unofficially endorsed EPA initiating a 404(c) action." Documents indicate that EPA staff planned to present the "Bristol Bay Options Paper" to Region 10 Administrator McLerran on July 8, 2010, in advance of his trip to Bristol Bay with Administrator Jackson.<sup>243</sup>

During the period that EPA Region 10 was developing the options paper, Mr. Parker, legal counsel to the Petitioning Tribes, sent an email to EPA Region 10 legal counsel and Mr. North with the subject line "options paper." The tribes' counsel suggested that:

[o]ne option that EPA might consider is to commence a 404(c) process based on the 2006 applications [Northern Dynasty had filed with ADNR in connection with their exploration of the Pebble deposit]. \*\*\* EPA could ask the Pebble Partnership for any updated designs (even though they presumably might not be final), and proceed based on the 2006 applications and whatever [the Pebble Partnership] provides in the way of additional designs, if any. 245

Mr. Parker suggested this strategy was similar to a prior instance in which EPA acted under Section 404(c) and "has advantages in the event that [the Pebble Partnership] challenges any 404(c)." Mr. Parker also sent to Mr. North (at his personal email address) a draft memorandum that he had prepared for his client Trout Unlimited, which presented a comparison of aspects of the Section 404(c) regulatory process and the NEPA process, believing it "may help." help."

## D. Briefing NOAA

On August 27, 2010, Doug Limpinsel of NOAA advised a colleague that "EPA (Alaska Region 10 to their DC Administrator) has internally been discussing the possibility of exercising their Section 404c authority" with respect to the Pebble Deposit Area and that "all EPA staff in this discussion feel they should exercise Section 404c, though the timing of when exactly to initiate the process remains to be determined." This information was conveyed to him by Mr. North. At Mr. North's request, Mr. Limpinsel supplied his colleague with an "outline of the Section 404c Veto Process for our [NOAA's] use and discussion." Mr. Limpinsel suggested to his colleague that they "discuss how to present this up the chain," explaining that "Phil [North] is asking us to informally inform beyond Jon Kurland [a NOAA habitat conservation division director] to our Regional Administrator (Balisinger) [sic] and have him prepared to run it higher should this come to light, which currently is a very likely scenario."

This "brief[ing] up the chain" did occur.<sup>251</sup> On August 30, 2010, Mr. Limpinsel reported to Mr. North that a NOAA director would brief the NOAA Alaska regional administrator and his deputy.<sup>252</sup> Mr. Limpinsel further expressed that he or other NOAA personnel would "meet with EPA to discuss the issues and our concerns as well as the EPA Section 404c process" and that he advised his director about NOAA's potential role "in developing and drafting a Biological Assessment for a Sec 404c."<sup>253</sup>

On February 7, 2011, EPA invited the National Marine Fisheries Service, an office of NOAA, to participate in the development of the BBWA.<sup>254</sup> In response, NOAA's Alaska Region Administrator designated Mr. Limpinsel as the "point of contact for technical issues related to the study."<sup>255</sup>

#### **E. EPA's Discussion Matrix**

To brief headquarters, EPA prepared a "Bristol Bay 404(c) Discussion Matrix" dated September 8, 2010, that describes the "pros" and "cons" of invoking Section 404(c), as well as whether to invoke Section 404(c) "during the permitting process" or "proactive before permit applications." See Appendix D for a copy of the Discussion Matrix and other relevant documents.

The document reflects that a "pro" of initiating the Section 404(c) process preemptively was that it "[c]an serve as a model of proactive watershed planning for sustainability." "Cons" associated with preemptive application of Section 404(c) included the fact that it had "[n]ever been done before in the history of the CWA;" "[i]mmediate political backlash from Alaska;" and "[l]itigation risk."<sup>257</sup>

EPA also listed among the "pros" of preemptively invoking Section 404(c) its "control of the process and decision," but acknowledged "cons" included "[t]here is no real public discussion – public involvement is to comment then sue if they have the resources" and "EPA would have less control of the 'spin' and political debate." "Pros" of the public discussion process included the ability to "build a public position and derail opposition" and "expand[] on [Administrator] Lisa Jackson's priorities – Protecting America's waters; Expanding the Conversation on Environmentalism and working for Environmental Justice; and building strong State and Tribal Partnerships[.]"<sup>258</sup>

The Pebble Partnership has contended that this "Discussion Matrix" shows that EPA had decided preemptively to use its Section 404(c) authority in the Bristol Bay project <u>before</u> it conducted an environmental assessment; that is, the decision preceded a scientific basis for the decision.<sup>259</sup> EPA denies that this was the case:

[T]he matrix was an early draft of a briefing paper developed by EPA staff. The preliminary identification of the various options reflected in that draft originated with EPA staff, but were (sic) developed more fully as discussions between staff and management ensued. Ultimately, the options that were presented to the Administrator for consideration differed substantially from those in the draft Matrix . . . . EPA ultimately selected to conduct an assessment of the Bristol Bay Watershed to gather additional scientific and technical information regarding Bristol Bay to inform a future decision on whether to take action pursuant to Clean Water Act Section 404(c) or to take other actions. The process the EPA ultimately selected featured significant public involvement. <sup>260</sup>

### F. Strategy Development in Support of a Preemptive Section 404(c) Action

On September 14, 2010, Mr. North emailed Michael Szerlog, EPA Region 10's Aquatic Resources Unit Manager and Rick Parkin, Region 10's project manager for Bristol Bay, with "[t]houghts for the Bristol Bay discussion tomorrow." Mr. North stated:

I hope that at this point everyone has gotten their minds around the idea that our focus is on the resource and not on any particular project. To that end, here are some thoughts about how I might approach a 404c action. The landscape unit that supports the resource we are discussing is the Bristol Bay watershed. So initially it seems that area should be the target of our 404c action. During the process of developing our proposed determination we would refine our target area based on the need for protection. <sup>262</sup>

"Not to be predecisional," Mr. North noted that the Nushagak and Kvichak rivers are the only two of six major river systems in the Bristol Bay watershed "open for development and with little land use planning that targets protection of aquatic resources." Mr. North concluded that "a 404c that targets the primary habitat of the resource we are trying to protect, salmon, is a logical approach." <sup>264</sup>

#### **G.** Briefing FWS

On September 23, 2010, Phil Brna, a fish and wildlife biologist with the FWS' Anchorage Field Office, emailed his colleagues Frances Mann and Ann Rappoport with an update on "Pebble and 404c." Mr. Brna reported that he had "spoke[n] with Phil North. He has now briefed people in EPA all the way up to the assistant administrator. He believes EPA leaders have decided to proceed and they are just deciding when. They say in the next 'couple of weeks' but it will probably be after the November election." Mr. Brna added that "Phil [North] says DC is opposed to his plan to do a year of outreach before they make a decision. He thinks they are just going to do this in accordance with the regs and as quickly as they can." Mr. Brna further expressed that Mr. North "thinks it is important we proceed with getting regional support" and then described steps intended to gain that support. Mr. Brna concluded: "This is going to happen and its [sic] going to get bloody. I am looking forward to it!" Phil

In preparation for an October 1, 2010 discussion, FWS staff in Alaska drafted a briefing document labeled "EPA to Seek Service Support When They Use Section 404(c) of the Clean Water Act." The stated purpose of the document is "[t]o inform Regional Office management about the status of the [EPA's] involvement in the potential Pebble Mine development and EPA's anticipated request for support from Region 7 of the U.S. Fish and Wildlife Service." The document further states that "[a]s of last week, it is our understanding that EPA has tentatively decided to initiate the 404(c) process but they have not yet determined when this will occur." Borrowing language related by Mr. Brna following his conversation with Mr. North, the document states that "[i]t is likely a final decision will be made after the November election." 273

## H. Requesting Funds to Apply Section 404(c) Preemptively

An undated, internal EPA document bearing the heading "FY11 Proposed Investment: **Bristol Bay 404(c)**" indicates that the Agency sought \$312,000 to address a "Funding Gap." EPA stated that the funds would be used to:

initiate the process and publish a CWA 404(c) 'veto' action for the proposed permit for the Pebble gold mine in Bristol Bay, AK. \*\*\* Region 10 believes that additional information gathering and analysis must be completed in order to support a decision to formally initiate of [sic] 404(c). It's still possible that a veto will not prove necessary, but a decision to move forward has created the need for upfront analysis and outreach regardless.<sup>275</sup>

The budget document added that "[c]onduct of the 404(c) action itself (anticipated in FY12) will require an additional \$187k." Former federal government employees told us that a specific budget proposal of this sort may have been in motion as early as 2009 and would have been finalized and submitted for approval no later than October 1, 2010 to be included in the FY11 budget.

## V. THE DECISION TO CONDUCT THE BRISTOL BAY WATERSHED ASSESSMENT

## A. Early Work and Outreach by EPA on an Outline of an Ecological Assessment

EPA repeatedly has stated that it initiated an ecological assessment "in response to concerns from federally-recognized tribes and others who petitioned the agency in 2010 to assess any potential risks to the watershed." But the written record described above in Section IV.A reveals that EPA personnel were considering a preemptive Section 404(c) action, with or without an ecological assessment, in advance of the May 2010 petition filed by several tribes.

At least some personnel within EPA Region 10 and other government agencies began preparing for an assessment before EPA had received the first of the tribes' competing petitions in May 2010. On March 8, 2010, Mr. North sent Mr. Limpinsel an email attaching his "first

draft outline for a preliminary ecological assessment of Pebble."<sup>278</sup> The next day, Mr. North sent Carol Ann Woody, a scientist who has worked with The Nature Conservancy and other environmental non-governmental organizations, his "Outline for Preliminary Ecological Assessment of the Pebble Copper Mine." Mr. North asked Dr. Woody for relevant literature and asked, "[i]s the TNC [The Nature Conservancy] risk assessment evaluating failure scenarios?"<sup>279</sup>

On March 24, 2010, The Nature Conservancy supplied Mr. North with a draft of its risk assessment and offered him an "honorarium" if he would peer review it.<sup>280</sup> We have not seen any suggestion that Mr. North ever accepted an honorarium or performed the peer review.

During 2010, at meetings in Anchorage, Seattle, and Washington, D.C., EPA met with interested parties, including those who supported mining in the Pebble Deposit Area, to obtain their views. EPA Administrator Jackson, Regional Administrator McLerran, and other EPA personnel visited Alaska in summer 2010 as part of Administrator Jackson's effort "to familiarize herself with issues in Alaska relevant to EPA's work." On July 28, 2010, they met with Pebble Partnership representatives and later the leadership of certain tribes and other regional stakeholders. EPA alerted area stakeholders to the Administrator's visit and worked with them to organize a "listening session" so that Administrator Jackson may "hear directly from the region their concerns and perspectives." 284

## B. EPA's Announcement and Stakeholder Reactions

On February 7, 2011, EPA announced its plan to conduct an assessment of the Bristol Bay watershed.<sup>285</sup> Noting its receipt of competing petitions from area tribes concerning a possible exercise of Section 404(c) authority, EPA explained that the assessment would be a "proactive step[] to better understand the watershed and gather important scientific information." EPA stated that its action "does not represent any regulatory decision by the agency;" rather, its work would "inform any future guidelines or actions about how to protect the

waters and promote sustainable development."<sup>287</sup> EPA further stated that the assessment would not be "limited to examining the effects of hard-rock mining projects, but will consider the effects of large-scale development in general."<sup>288</sup>

EPA advised the Corps of the Petitioning Tribes' request that EPA take action under Section 404(c) and of EPA's intent to conduct the BBWA two business days before the public announcement.<sup>289</sup> In response, the Alaska District Commander for the Corps wrote to another Corps employee:

My gut reaction is that if they go ahead with the study, they have effectively invoked veto authority and our involvement is over. <sup>290</sup>

The Chief of the Regulatory Program for the Corps sought clarification from EPA as to how its "authorities [for research and studies associated with the BBWA] could be intertwined with 404(c)," noting that she was "pushing to understand EPA authority and objective for this effort." In response, EPA advised the Corps that the BBWA was being conducted under Section 104 of the Clean Water Act relating to research and studies, and that the assessment was not the initiation of a Section 404(c) action, but rather was a baseline study "to discuss options for protecting these resources." EPA invited the Corps to participate in the BBWA. The Corps declined to do so, noting that "as an independent decision maker" it could not participate in the BBWA process. <sup>294</sup>

The State of Alaska objected to EPA's announcement that it would conduct an assessment of the Bristol Bay watershed:

This assessment and the evolving process that EPA proposes is, frankly, unprecedented and not prescribed in statute or regulation. Indeed, the State believes that if EPA deems a review under Section 404(c) of the Clean Water Act is needed, that review should be conducted in conjunction with a pending permit application where actual activities and potential disposal sites are clearly specified, not in the abstract as it will be in this assessment process. <sup>295</sup>

The State maintained its opposition to the assessment throughout its development of the BBWA and, once published, asked EPA's Inspector General to investigate its preparation.<sup>296</sup>

The Pebble Partnership's Chief Executive Officer, John Shively, spoke by telephone with Regional Administrator McLerran the day EPA announced it would assess the Bristol Bay watershed.<sup>297</sup> In a letter dated February 28, 2011, Mr. Shively thanked Regional Administrator McLerran "for keeping an open line of communication regarding [EPA's] decision to conduct an assessment of the Bristol Bay Watershed."<sup>298</sup> Mr. Shively argued "that any action under the Clean Water Act (CWA) section 404(c) should not be undertaken until [the Pebble Partnership] has formally initiated permitting for the Pebble Project and started the [NEPA] process."<sup>299</sup> EPA replied with this assurance:

EPA is not using the Assessment to make a decision under our section 404(c) authority.  $^{300}$ 

Mr. Shively requested that the Pebble Partnership "be allowed to fully participate in the assessment." EPA contends that it maintained an open line of communication with the Pebble Partnership throughout the development of the assessment. In October 2011, Mr. Shively reiterated to Regional Administrator McLerran that the Partnership "sincerely appreciate[s] the open communication we have enjoyed with you, Bob Sussman and the Regional Administrator's office."

In that same October 2011 correspondence, Mr. Shively confirmed to EPA that the Partnership would supply the EBD in .pdf format.<sup>304</sup> To ameliorate EPA's concern that it would not have access to the raw data, the Pebble Partnership offered to make its consultants available to respond to EPA questions concerning the EBD or to supply the raw data to an independent, third-party contractor who could compute and analyze the data at EPA's instruction in connection with its development of the BBWA. EPA declined the latter accommodation, but EPA's "watershed assessment team" participated in a meeting on November 1, 2011 during

which the Pebble Partnership's consultants presented information about the EBD in-person and via webinar. 305

EPA repeatedly sought from the Pebble Partnership a current mine design layout for use in connection with the development of the BBWA.<sup>306</sup> The Partnership declined this request.<sup>307</sup> Mr. Shively explained that "the pre-feasibility study [then underway] will result in a mine design layout that will supersede all previous designs. . . . Until that study is completed, there will be no mine design for EPA to analyze . . . so the request is premature."<sup>308</sup> Mr. Shively cautioned EPA against "[u]sing an outdated and merely conceptual plan such as the one submitted in 2006 to the Alaska Department of Natural Resources by Northern Dynasty Minerals for water rights applications – or even the preliminary Waldrop [sic] plan of February 2011[.]"<sup>309</sup> Mr. Shively maintained that relying on the Wardrop Report "would be an inadequate basis for such an assessment. Any analysis of this design would lead to erroneous conclusions having little relevance to what may actually be submitted by [the Pebble Partnership] at some future date."<sup>310</sup>

To ensure a full range of perspectives informed the BBWA, EPA organized an "Intergovernmental Technical Team" so that representatives of state, federal, and tribal governments might contribute their scientific, technical, and traditional ecological knowledge to the development of the BBWA. EPA facilitated a two-day meeting of the team in Anchorage, Alaska on August 9-10, 2011. In advance of that meeting, EPA supplied participants with guidelines explaining their role, a draft outline of the BBWA, and conceptual diagrams that would serve as a "tool to discuss environmental resources, potential stressors to those resources, and the endpoints" on which the assessment would focus. EPA's guidelines for the Intergovernmental Technical Team disclaimed that it would address "legal or policy questions;" rather, the aim was "that convening the group together for a productive interchange of ideas about the characteristics and relationships in the watersheds [would] contribute to a scientifically

sound assessment."<sup>314</sup> Team meetings were not open to the public and did not substitute for EPA's tribal consultation obligations.<sup>315</sup> Members were invited to supply EPA with written feedback following the meeting.<sup>316</sup>

## VI. BBWA DRAFTS

#### A. The First Assessment Draft

On May 18, 2012, EPA released its initial draft of the BBWA for public review and comment.<sup>317</sup> The BBWA was revised and ultimately published as a final work in accordance with the processes described below. The final version of the BBWA is described in Section VII.

# 1. EPA Denies Requests of the State and Others for an Extension of First Draft Comment Period

Upon the release of the first BBWA draft, EPA opened a public comment period that ran until July 23, 2012. The State of Alaska sought a 120-day extension of the comment period on the grounds that the 60-day public review period was "inadequate for the public, including the State, to address technical and legal merits of the assessment," especially given that the "three-volume assessment totals more than 1,000 pages" and references an additional 2,000 documents upon which EPA "apparently relied." The State raised concerns that "[r]equiring the public to comment by July 23, well in advance of the release of the [peer review] panel's information and meetings, and while many Alaskans are engaged in commercial fishing and/or subsistence activities, strikes us as an unnecessary rush to judgment." 320

U.S. Senator Lisa Murkowski, U.S. Congressman Don Young, and Alaska Senator Cathy Giessel joined the State's request for an extension.<sup>321</sup> Ten of the Alaska Native regional corporations, as well as village corporations, tribal governments, councils and other representative bodies, likewise petitioned EPA to extend the draft BBWA public comment period.<sup>322</sup> Numerous trade groups and associations also requested an extension of time in which to comment. EPA similarly received requests to maintain to its schedule.

EPA denied the requests to extend the 60-day public comment period. EPA explained that in its experience 60 days had proven a sufficient duration for public comment periods, "particularly where many of the commenters are familiar with and have expertise in the issues presented." EPA noted that the BBWA is "strictly to inform the EPA" about the ecological resources of the Bristol Bay watershed and "is not a regulatory action." EPA provided assurance that should it commence a regulatory action in the future, "there would be a process for public review and comment" at that time. EPA also cited extensive public participation while the BBWA draft was being prepared and following its release, the fact that the peer review panel would have access to a summary of public comments on the BBWA draft, and a desire to minimize "anxiety" among the Petitioning Tribes as further reasons warranting adherence to the original schedule.

Documents produced in response to FOIA requests, however, suggest that certain BBWA contributors perceived that EPA may have had "political" motivations to deny the requested extension.<sup>327</sup> Alan Boraas and Catherine Knott, two BBWA contributors, wrote that the BBWA is "a daunting task that apparently for political reasons must be completed in about six months."<sup>328</sup> Mr. North responded:

We are being careful to say that at this point we are not starting a 404c process. We are gathering the information necessary to determine if a 404c process is warranted. We don't want to give people the impression that we have started the 404c process. I know this may seem like a fine line, but it is significant for us and for the public perception of what we are doing.

While I'm at it – We have set a relatively short time line to get this done so that we can be responsive to the tribes that requested we initiate a 404c action in advance of a permit for the Pebble Mine. In order to do an advance action we must have the watershed assessment completed before PLP [the Pebble Partnership] submits their [sic] applications. We may not make that time line, but we will try. We think we can do it and provide the high quality science needed in the time frame we have set. If we find we need more time for the science then we will extend the time lines.<sup>329</sup>

## 2. Public Responses to the First Assessment Draft

There was considerable public participation in response to the draft. EPA held eight public meetings relating to the draft assessment (seven throughout Alaska and one in Seattle, Washington) during June 2012. About 2,000 people attended these meetings. In July 2012, EPA hosted two webinars in which it summarized the results of these June meetings. EPA received more than 233,000 public comment letters, most of which resulted from mass-mailing campaigns but also included more than 5,500 unique submissions. The Petitioning Tribes, BBNC, NRDC, the State of Alaska, and the Pebble Partnership were among those who supplied EPA with comments on the BBWA draft, as summarized in this endnote. There was a wide diversity of opinion as to the quality and comprehensiveness of the assessment. In general, environmental non-governmental organizations and tribes opposed to the mine lauded the scientific rigor and thoroughness of the assessment; the State of Alaska and the Pebble Partnership alleged the assessment to be premature and contain serious deficiencies.

## 3. Peer Review of the First Assessment Draft

Three weeks after releasing the first draft BBWA, EPA announced that an independent scientific peer review panel would review it. EPA contracted with Versar, Inc., a global project management company which frequently works with government clients, to manage the peer review process. Versar vetted approximately 100 candidates and selected "12 experts . . . to provide a documented, independent, and critical review of [the] draft assessment." The peer review process began with an approximately two-month phase, during which peer reviewers were provided with a copy of the BBWA, as well as access to the technical comments and summary of written comments submitted to EPA's public docket. The peer reviewers were asked to prepare written responses to 14 questions provided by EPA. For the second phase of the peer review process, Versar facilitated a three-day meeting of the peer review panel on

August 7-9, 2012 in Anchorage, Alaska.<sup>340</sup> On the first day, the peer review panel heard oral comments concerning the BBWA from the public.<sup>341</sup> On the second day, the public observed the peer review panel deliberate about each charge question.<sup>342</sup> The third day was closed to the public, while the peer reviewers met to deliberate further and document their major recommendations for EPA.<sup>343</sup>

On September 17, 2012, the peer reviewers provided EPA with their "Final Peer Review Report" relating to the first BBWA draft.<sup>344</sup> The reviewers "commended EPA for an assessment of a challenging, complex scientific issue, working with data of variable quality and quantity."<sup>345</sup> They offered twelve recommendations to modify the initial draft assessment, such as providing added rationale for the mine scenarios assessed.<sup>346</sup> Some peer reviewers also noted the limitations inherent in the first draft assessment. One reviewer pointed out that the risks to wildlife were not quantified, but could be with additional analysis.<sup>347</sup> Another elicited an acknowledgement from EPA that it could not quantify the amount of anticipated losses to fish in the Nushagak and Kvichak basins arising from the loss of streams and wetlands contained within the footprints of the three hypothetical mines.<sup>348</sup>

Some peer reviewers questioned the utility of an assessment which employed hypothetical mine scenarios.<sup>349</sup> EPA responded:

We respectfully disagree that the hypothetical nature of the approach compromises the utility of the assessment. All mining plans are hypothetical. They change in response to the results of assessments, regulatory requirements, public input, and unforeseen conditions and events. They cease to be hypothetical only after the mine is closed. At every step in the process, assessments of the current plan are useful even though plans will change. This assessment is based largely on a preliminary plan, published by Northern Dynasty Minerals (Ghaffari et al. 2011). Although layout of mining components in a future mine plan may differ somewhat from the preliminary plan or the assessment scenarios, the main components of mining would remain the same for open-

pit mining (and underground mining would face the same waste issues).  $^{350}$ 

Unpersuaded by this explanation, one peer reviewer replied:

It would appear that on this topic the reviewer and the US EPA authors are likely to continue to disagree. The hypothetical nature of the approach presented in the original assessment document was sufficiently vague to the degree of confidence in the assessment [and] may limit its utility to risk decision-makers due to the high degree of uncertainty associated with the evaluation. By increasing the information upon which environmental exposure concentrations and environmental effects concentrations are estimated and taking into account site-specific environmental conditions, a more robust assessment with less uncertainty can be developed. This does not suggest that the original "screening level" approach has no utility; it merely suggests that the degree of uncertainty associated with the assessment may not have been sufficient to provide risk decision-makers with sufficient information upon which to make long-term project decisions. 351

Several peer reviewers commented on the lack of analysis regarding how a mine developer might mitigate the environmental effects. One peer reviewer stated:

There is no discussion of engineering and mitigation practices in this section. The responsible regulatory authority would require the project proponent to present a mitigation plan to compensate for these impacts before permitting. Measures would include minimization of impact through facility siting, reclamation if possible, and compensation if reclamation were not feasible. A thorough analysis of possible mitigation approaches and the likelihood of their success are necessary to fully evaluate impacts from the 'no-failure' scenario. 352

EPA agreed to include a more thorough discussion of compensatory mitigation in the next draft, but also suggested that this issue would be addressed during the regulatory process (described earlier in Section I.B) which follows the filing of a permit application by the developer:

EPA RESPONSE: Mitigation measures for design and operation are more clearly called out in the revised assessment. While measures chosen here may differ from what is required during the regulatory process, the assessment is not a mining plan and not an evaluation of a mining plan. The assessment assumes that measures chosen for the scenarios would be as effective as possible and examines only accidental failures rather than a failure to

choose a proper mitigation measure. Mitigation to compensate for effects on aquatic resources that cannot be avoided or minimized by mine design and operation would be addressed through a regulatory process that is beyond the scope of this assessment. Nevertheless, in response to public and peer comments we have included a discussion of compensatory mitigation in Appendix J of the revised assessment. 353

In response to certain issues identified by the peer reviewers as requiring additional scientific support, EPA selected seven supplemental reports for peer review.<sup>354</sup> All of the reports selected by EPA were prepared by or for an organization or author that had publically opposed the development of a Pebble mine.<sup>355</sup> EPA relied upon five of these seven reports in the final BBWA.<sup>356</sup> The two reports upon which EPA did not rely were co-authored by a geochemist who became the subject of controversy after she "disavow[ed]" her work and testimony in an unrelated matter.<sup>357</sup> By that time, however, the geochemist already had joined other scientists twice in presenting to EPA scientific works related to the Bristol Bay fisheries, potential impacts from mining the Pebble Deposit Area, and The Nature Conservancy's ecological assessment of large-scale mining in the Nushagak and Kvichak watersheds.<sup>358</sup>

A number of the peer reviewers expressed concerns about bias, lack of quantitative information, or faulty conclusions in these EPA-selected reports.<sup>359</sup> EPA responded:

Before completing the revised draft, EPA had several reports that were submitted during the draft assessment's public comment period independently peer-reviewed. These reports were selected because they provided new data for analyses conducted in the assessment or modeling results that could be used as an independent check on the modeling performed in the assessment. Peer review of these documents was conducted by a peer review contractor. Although the reviewers noted an apparent bias in data interpretation in some of those reports, the data themselves were not found to be biased and were used in the assessment. <sup>360</sup>

## **B.** The Second Assessment Draft

Informed by the peer review and public comments, EPA substantially revised the assessment and released the second external draft on April 30, 2013. The body of the report

increased in length from 339 pages to 618 pages, and its original nine chapters expanded to 15. The reorganized second draft revised and moved existing content and added much new material, including analysis of a third, smaller mine scenario (0.25 billion tons, to accompany the 2.0 and 6.5 billion ton mine scenarios analyzed in the first assessment draft). In addition, the second draft featured a new appendix addressing compensatory mitigation.

EPA provided a 30-day public review and comment period for the second draft.<sup>361</sup> EPA again received competing requests to extend and to maintain the public comment period.<sup>362</sup> In response, EPA extended the comment period for one month, until June 30, 2013.<sup>363</sup>

The public response again demonstrated strong interest in this project, with the second draft generating approximately 890,000 comments.<sup>364</sup> Most of the public comments EPA received resulted from mass-mailing campaigns.<sup>365</sup> The Petitioning Tribes, BBNC, NRDC, the State of Alaska, and the Pebble Partnership were again among those who supplied EPA with comments, along with state and federal elected officials and others, as summarized in the endnote.<sup>366</sup> As with the first draft, those who opposed mining praised the revised draft, while those who supported development, or favored allowing the Permit/NEPA Process to run its course, were critical of the work.

## 1. EPA's Response to Public Comments

An EPA contractor analyzed and prepared a compendium of the public comments on both BBWA drafts, including EPA's responses to those comments.<sup>367</sup> EPA's responses to issues raised by the public included the following:

• On the use of hypothetical mining scenarios: "Risk assessments evaluate the potential effects of possible occurrences. Thus, a risk assessment is, by its very nature, an analysis of hypotheticals. Further, the statement that there is no actual design is incorrect, since Northern Dynasty Minerals developed and published a preliminary plan containing a design for a mine and supporting facilities (Ghaffari et al. 2011), which is cited extensively throughout the assessment;" 368

- On whether the hypothetical mining scenarios reflected a realistic mine: "The scenarios evaluated in the assessment are based on preliminary plans put forth by Northern Dynasty Minerals in Ghaffari et al. (2011), which are described as 'permittable' and assume the use of modern conventional mining methods, technologies, and mitigation measures and compliance with current regulatory standards. Thus, these scenarios are realistic estimates for the types of mines that would be developed in the region. Although the specific location of mine components and operational details may ultimately differ slightly from those used in the assessment scenarios, this would be also be true of any assessment conducted for any submitted mine plan;"369
- <u>On compensatory mitigation</u>: "Mitigation to compensate for effects on aquatic resources that cannot be avoided or minimized by mine design and operation would be addressed through a regulatory process that is beyond the scope of this assessment. Nevertheless, in response to public and peer review comments we have included a discussion of compensatory mitigation in Appendix J of the revised assessment;" 370
- <u>On economic considerations</u>: "The economics of fish resources are considered briefly in the assessment because those resources represent the main assessment endpoint of interest; the economic value and jobs associated with the mine are also mentioned (Chapter 1 of the final assessment). The assessment is not a costbenefit analysis and does not compare the value of fish versus mineral resources;" 371
- On the water release plan: "Although a detailed water management plan is beyond the scope of this assessment, the assessment does consider changes in water flow and contaminant concentrations on an annual time scale. We would expect that a detailed water management plan would optimize release locations, timing, and flow rates to minimize negative impacts from the mine;" 372
- On the assessment approach: "The assessment is an ecological risk assessment, and it has been prepared following EPA's guidelines for such assessments. It focuses on the risks of large-scale porphyry copper mining to the region's salmon resources. The assessment has not been prepared for the same purposes as a National Environmental Policy Act (NEPA) document." 373

#### 2. Review of the Second Assessment Draft

The second assessment draft was reviewed, but the process was not as robust as it was for the first assessment draft—EPA elected to conduct its own review, rather than using an independent contractor; no peer review conference was held; and some reviewers complained of insufficient time or compensation to fulfill their charge.<sup>374</sup> The truncation of the process may be explained by the fact that: 1) EPA asked the same people who reviewed the first draft to review

the second draft; and 2) the reviewers were asked only to review EPA's responses to their comments to the first draft and evaluate whether those comments had been sufficiently addressed in the second draft.<sup>375</sup>

# 3. Congressional Response to the Second Assessment Draft

On August 1, 2013, the U.S. House of Representatives' Committee on Science, Space, and Technology held a hearing in response to EPA's draft BBWA.<sup>376</sup> The hearing included statements by then-Representatives Paul C. Broun and Dan Maffei, as well as testimony and questioning of four witnesses who voiced contrasting viewpoints on EPA's watershed assessment. Representative Broun noted that the BBWA drafts had "cost taxpayers a minimum of \$2.4 million" and suggested that EPA's manner of proceeding raised "due process" concerns.<sup>377</sup> In contrast, Representative Maffei opined that "[t]he draft assessment is solid science that demonstrates hardrock mining cannot coexist side by side with salmon without harm to the salmon, to the fishing and sportsmen economy, and to the native communities" and urged EPA to move forward with its Section 404(c) action.<sup>378</sup>

## VII. THE FINAL BBWA

After three years of work, EPA published the final version of the BBWA on January 21, 2014.<sup>379</sup> The BBWA was the product of 20 authors (EPA personnel, academic experts, and contractors retained by EPA); 46 EPA, private sector, and academic contributors; and 30 reviewers of various drafts.<sup>380</sup>

According to the final version of the BBWA, EPA conducted its assessment "to determine the significance of Bristol Bay's ecological resources and evaluate potential impacts of large-scale mining on these resources"—a narrower focus than initially announced.<sup>381</sup> To do so, EPA performed an "ecological risk assessment" to provide "technical information and analyses to foster public understanding and inform future decision making."<sup>382</sup> The information

focused upon the risks of mining development to the sustainability of Bristol Bay salmon fisheries.<sup>383</sup>

The three volume report spans over 1,400 pages (including appendices). Below is a summary of the most pertinent features.

## A. Scope and Key Assumptions

The assessment was intended to "inform the consideration of options for future governmental action" and serve as a valuable resource for federal and state permitting authorities should mine permit applications be filed in connection with the development of a mine within the Bristol Bay watershed.<sup>384</sup> At the same time, EPA made clear what the Assessment was not: it was neither "an environmental impact assessment, an economic or social cost-benefit analysis, [n]or an assessment of any one specific mine proposal." Rather than analyze a comprehensive mine permit application (which did not and still does not exist for any site within the watershed), EPA created three mine scenarios—a 0.25 billion ton mine, a 2.0 billion ton mine, and a 6.5 billion ton mine—and created assumptions about these hypothetical scenarios "that reflect the expected characteristics of mine operation at the Pebble deposit."386 The assessment also specifically excluded from review: 1) impacts of port development and operation; 2) impacts of necessary electricity-generating plants; 3) development of support services necessitated by mine development; 4) the potential economic impact (such as job creation) of mining development and operation; and 5) a comparison of "mining to other ongoing activities such as commercial fishing."387

The most controversial assumptions employed related to the use of hypothetical mine scenarios. The State of Alaska and the Pebble Partnership both contended that the assessment was fatally flawed because it did not and could not analyze the environmental impact of a proposed mine at the Pebble site without a permit application detailing an actual mine plan. In

letters to EPA, the State of Alaska questioned "the applicability of the Assessment process in the absence of a detailed project proposal." The State expressed its concerns as follows:

It is difficult to make technical observations regarding the mine development model used in the Assessment because the basis of the model is comprised of a number of assumptions, not site-specific data or actual mine plans. While the hypothetical mine and scenarios . . . may appear to be realistic . . . they do not represent the only options and outcomes that could apply to a mine in the Bristol Bay area . . . . Thus, the Assessment does not provide an accurate assessment of potential mine developments. 389

The State concluded that the assessment "would have much more scientific credibility within the context of an actual defined [mine permit] proposal." <sup>390</sup>

EPA addressed this issue in the BBWA, stating that the hypothetical mine scenarios "realistically represent the type of development plan that would be anticipated" for a mine in the watershed:

The mine scenarios draw on preliminary plans developed for Northern Dynasty Minerals, consultations with experts, and baseline data collected by Pebble Limited Partnership to characterize the mine site, mine activities, and the surrounding environment. The exact details of any future mine plan for the Pebble deposit or for other deposits in the watershed will differ from our mine scenarios. However, our scenarios reflect the general characteristics of mineral deposits in the watershed, modern conventional mining technologies and practices, the scale of mining activity required for economic development of the resource, and the infrastructure needed to support large-scale mining. <sup>391</sup>

EPA also addressed the critique of its use of hypothetical mine scenarios in response to public comments:

Many of the details of a mine plan may differ from what we have described. However, the essential elements of a mine plan are represented here and would have similar effects regardless of modifications implemented. We used the elements described by Northern Dynasty Minerals as plausible and permittable (Ghaffari et al. 2011). 392

We interviewed Hassan Ghaffari, lead author of the Wardrop Report, to obtain his perspective on EPA's use of his report in constructing its hypothetical mine scenarios and on characterizing the mineral development project as "permittable" based on EPA's contention that the Wardrop Report uses that term and describes a plan for a mine at the Pebble Deposit Area. Mr. Ghaffari explained that "permittable," as he used the term, meant that the project had sufficient mineral resources to warrant development and had the potential to be permitted subject to satisfactory completion of the requisite prefeasibility and feasibility studies. Mr. Ghaffari advised that the Wardrop Report was a preliminary assessment principally intended to advise potential investors of the baseline economic viability of a development opportunity. Mr. Ghaffari noted that his report was not a mine plan or sufficient for use as a permit application. The Pebble Partnership had not assembled the scientific data necessary for such a permit application as of the date of his report, and thus its scope did not approximate a permit application. Mr. Ghaffari said that EPA did not contact him about his report.

## B. Assessment Approach

The BBWA was conducted as an ecological risk assessment designed to determine whether exposure to large-scale mining might result in adverse ecological effects. The primary focus was fish, particularly salmon. Wildlife and Alaska Native cultures were also considered, but only as to how reductions in fish populations might affect them. Accordingly, the BBWA compiled information about the Bristol Bay watershed, its aquatic life, wildlife, and local populations (collectively, the environmental components subject to the study of ecological risk). It then described the potential "stressors," which included activities that would: change the physical landscape, such as excavation and filling; alter water temperature in streams and wetlands, such as releasing surplus or stored water; introduce chemical contaminants into the environment; create dust and noise; require the use of culverts; and introduce invasive species. 397

The BBWA then examined several major categories of risk: water contamination; tailings dam failure; risks occasioned by the development of a transportation corridor; pipeline failures; risks to wildlife and native cultures should a diminution of fish supply occur; and risks from multiple mines.<sup>398</sup>

The BBWA identified a number of specific risks to the watershed's fish, and consequently wildlife and human welfare, arising from the assumed mining development. These risks included:

- Between 24 and 94 miles of lost streams or significantly decreased stream flow, the exact amounts depending upon the different mine footprints assumed for each of the three mine scenarios;<sup>399</sup>
- Losses of between 1,200 and 4,900 acres of wetlands, and hundreds of acres of ponds and lakes, the exact amounts again dependent upon which hypothetical mine scenario was used;<sup>400</sup>
- Indirect effects of these stream and wetlands losses, such as reduced food resources, a shifting balance of ground and surface water, and possible seasonal temperature alterations, which would in turn diminish the quality of downstream habitat for fish, but in unquantifiable amounts;<sup>401</sup>
- Uncollected runoff and leachates from waste rock and tailings storage facilities which could degrade the surrounding water supplies, the most serious risk being an elevation in copper levels. The study found that the mine would have to capture over 99% of water emanating from the hypothetical "Pebble 6.5" mine scenario (i.e., less than 1% "leakage") for the South Fork Koktuli River to stay within accepted copper levels. The study assumed, however, that the mine would capture only 50% of such runoff and leakage, necessarily leading to the conclusion of unsafe levels of copper in the South Fork Koktuli River resulting from development; and
- The potential for failure of infrastructure created to support the mine's operations, including:
  - Wastewater treatment plant failure—an unquantified risk, but one which EPA expected to occur "during the operation or post-closure periods;" 404
  - o Blockage of culverts designed to allow water flow where streams intersected with the transportation corridor, with the risk unspecified during the period of mine operations, but with an estimated average blockage of between 11 and 22 fish-bearing streams after cessation of mine operations;<sup>405</sup>

- O Tailings dam failures, which have a historical failure rate of approximately 1 failure every 2,000 dam years. While a low probability event, such a failure could have catastrophic consequences, including the near-complete loss of North Fork Koktuli River fish populations and sizable fish losses in the Nushagak and Mulchatna rivers; 407
- O Pipeline failures (pipelines carry the principal mine product, a copper concentrate with other metal traces), estimated at three failures every 78 years for the "Pebble 6.5" hypothetical scenario. Additionally, the report predicted that a diesel fuel pipeline would be expected to spill during the useful life of the Pebble 6.5 mine. Both estimated risks were derived from historical pipeline failure data; 408 and
- Multiple, simultaneous failures of infrastructure could occur in the event of a natural or man-made disaster or severe climate event. This risk was not quantified.<sup>409</sup>

## C. Compensatory Mitigation

Compensatory mitigation, in the context of assessing the environmental impact of a proposed development, refers to the restoration, establishment, enhancement or preservation of aquatic resources to offset impacts caused by approved (i.e., permitted) development. "The amount of compensatory mitigation must be, to the extent practicable, 'sufficient to replace lost aquatic resource functions." In May 1994, EPA and the Corps provided mitigation guidance specific to Alaska, stating:

[I]t may not be practicable to provide compensatory mitigation through wetlands restoration or creation in areas where there is a high proportion of land which is wetlands. In cases where potential compensatory mitigation sites are not available due to the abundance of wetlands in a region and lack of enhancement or restoration sites, compensatory mitigation is not required under the [Section 404(b)(1)] Guidelines.<sup>412</sup>

The regulations recognize that "there may be instances when the [Corps] cannot issue a permit 'because of the lack of appropriate and practicable compensatory mitigation options."<sup>413</sup>

EPA has stated that it included "modern conventional mitigation practices" in its three hypothetical mine scenarios.<sup>414</sup> EPA recognized that environmental risks could be further reduced by "unconventional or even novel mitigation measures," which were not included in the

three scenarios. EPA reviewed various compensation measures proposed by commenters (including by the Pebble Partnership). While EPA noted that there were "significant challenges" associated with these measures, it did not reach a conclusion as to whether these measures could effectively address the impacts described in the Assessment. EPA declared, as it had in response to similar concerns raised by peer reviewers in response to the first draft, that such a determination "can only take place in the context of a regulatory action," and thus "a complete evaluation of compensatory mitigation is outside the scope of this assessment."

## D. Examples of Critiqued Issues that Remained in the Final BBWA

We note here three examples of issues where EPA made assumptions it deemed "realistic" about the characteristics of the hypothetical mines. According to the Pebble Partnership, these assumptions did not represent state of the art mining techniques and had the effect of ensuring a finding of environmental harm. These competing scientific and engineering claims as to the efficacy of the mining design would necessarily be tested in a permit application process. But testing these claims fell outside of the scope of the BBWA.

## 1. Leachate Seepage

In the context of mining, "leachate" is water (including precipitation and snow melt) that has moved through or over the ground, tailings, or waste rock and "may contain dissolved minerals, process chemicals, and/or metals." The BBWA stated:

Leachate capture efficiencies are uncertain. We assume 50% capture for waste rock leachates outside of the mine pit drawdown zone. In the Pebble 2.0 scenario, for example, this would result in capture of 84% of the leachate by the pit drawdown zone and the wells combined. To avoid exceeding water quality criteria for copper, more than 99% capture would be required.

The Pebble Partnership objected that the hypothetical mines that EPA created were doomed to fall short of state permitting standards given this 50% leachate assumption. With the combination of two assumptions (50% leachates and "conventional mitigation techniques"), the

hypothetical mines would inevitably produce unacceptable ecological impacts. Moreover, the Partnership claimed that the 50% leachate assumption was unrealistic, inconsistent with the standards applicable to operating mines, and had no legitimate rationale. Consultants retained to develop the Partnership's plans for TSFs and waste rock piles claim that their design would capture 99% or more of seepage and is intended to meet a "non-detectable" seepage standard.

## 2. TSF Design

The BBWA stated that "[e]ach TSF would be unlined other than on the upstream dam face, and there would be no impermeable barrier constructed between tailings and underlying groundwater." Elsewhere, the BBWA provided that

[w]ell fields spanning the valley floor would be installed at the downstream base of all tailings dams to monitor groundwater flow down the valley, including potential uncaptured seepage from the TSF. If contaminated ground water was detected, monitoring wells would be converted to collection wells or new recovery wells would be installed, and water from the well field would be pumped back into the TSF or treated and released to stream channels.<sup>422</sup>

The Pebble Partnership claimed EPA's TSF design falls well short of state of the art and would not be permitted without enhancements. Although the BBWA hypothetical contemplates that redundant precautions would be made part of the design of the TSF, the Pebble Partnership contended that control measures beyond those described in the BBWA would be made part of the design of any TSF at the Pebble deposit. These include a grout curtain tied into the liner on the upstream face of the dam and extending into the bedrock below the TSF to block the flow of underground water and seepage collection ponds downstream of the TSF. Engineers and hydrologists working on the mine plan for the Pebble Partnership alleged that EPA designed the TSF to leak. They further explained that there would be multiple levels of redundancy involved in the design of the TSF needed to meet the "non-detectable" standard for seepage mentioned in the preceding section.

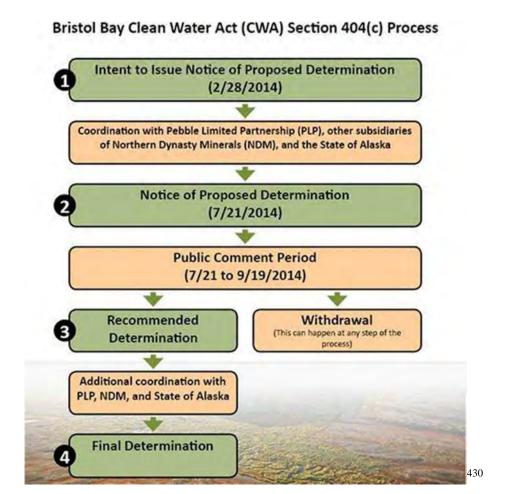
## 3. Water Release Plan

The BBWA assumed that surplus water from the mine site, including water from the water treatment plant, would be released into the North Fork Koktuli River and South Fork Koktuli River; no surplus water would be released into the Upper Talarik Creek. The Pebble Partnership contended that EPA was wrong to assume that no water would be released into the Upper Talarik Creek, which has the most productive fish habitat of the three water bodies.

The BBWA further assumed that the water would be released at locations along the North Fork Koktuli River and South Fork Koktuli River that would create, rather than mitigate, fish habitat impacts. Engineers and hydrologists working on a potential Pebble mine plan agreed that the location, volume, and timing of water discharges contemplated in the BBWA created additional impacts to fish habitat instead of mitigating impacts to fish habitat and objected to inclusion of those assumptions in the BBWA. Instead of returning water to part of the South Fork Koktuli River that would experience at least a 20% decrease in water volume as a result of mine operations, EPA shows the water being released into a tributary that would have otherwise been unaffected by mine operations. The Partnership contended that this unnecessarily created an impact by increasing stream flow by 20% or more in each of the hypothetical mine scenarios. The Partnership complained that any inflexible release assumption was unrealistic; instead, the operator would tailor its water release plan to the needs of the surrounding fish habitat and alter release volumes accordingly.

## VIII. EPA'S NOTICE OF INTENT TO PROCEED WITH SECTION 404(C)

On February 28, 2014, EPA issued its notice of intent to proceed under Section 404(c) of the Clean Water Act "to review potential adverse environmental effects of discharges of dredged and fill material associated with mining the Pebble deposit" (the "Notice of Intent"). EPA outlined the Section 404(c) process as follows:



EPA initiated the preemptive Section 404(c) review based on available information from the BBWA and the Wardrop Report.<sup>431</sup> The Agency stated that it had "reason to believe that porphyry copper mining of the scale contemplated at the Pebble deposit would result in significant and unacceptable adverse effects to important fishery areas in the watershed."<sup>432</sup>

Simultaneously with the issuance of its Notice of Intent, EPA sent letters to the Corps, the State of Alaska, and the Pebble Partnership, providing each with 15 days to provide a response to the Notice of Intent and to submit information to demonstrate that no unacceptable adverse effects to aquatic resources would result from any associated mining discharges. The letter stated that EPA would examine whether the environmental effects of such potential discharges would be unacceptable and noted that, based on input from the Corps, Alaska, or the Pebble Partnership, EPA might decide that Section 404(c) review was not necessary. In its

press release issued the same day as the Notice of Intent, EPA remarked that, while the Agency "might decide that Section 404(c) was not necessary," "[t]he science EPA reviewed paints a clear picture: Large-scale copper mining of the Pebble deposit would likely result in significant and irreversible harm to the salmon and the people and industries that rely on them."

EPA's initiation of the preemptive Section 404(c) process meant that the Corps could not issue a permit for fill in wetlands or streams associated with mining in the Pebble Deposit Area until EPA completed its Section 404(c) review.<sup>436</sup>

## A. The Corps' Response

On March 14, 2014, the Corps responded to EPA's Notice of Intent and declined to submit any substantive response based on the "premature" nature of the request, stating:

[A]t this time, the Corps has not received a permit application for this project and is therefore unable to evaluate the impacts of potential discharges associated with the Pebble deposit.

The Corps has not yet begun the public interest review and evaluation process, and it would be premature to submit any information for the record at this time. 437

The Corps provided no further response.

### B. The State of Alaska's Response

On February 28, 2014, the State of Alaska asked EPA to toll its Section 404(c) action until after the Pebble Partnership submitted a permit application, or at least to provide an extension of time in which to respond to EPA's Notice of Intent, stating that "[f]ifteen days is an inadequate amount of time for the State to respond to proposed federal action that will have enormous impacts on the regulatory rights and responsibilities, as well as the economic wellbeing, of the State and its residents."

On March 13, 2014, EPA granted the State a 45-day extension to respond to the Notice of Intent. The Agency denied its request to stay the process. Approximately two weeks later, on March 25, 2014, EPA met with the State to hear its concerns.

On April 29, 2014, the State submitted its response to EPA's Notice of Intent.<sup>442</sup> The State reiterated its position that EPA's "intent to place restrictions on fill activities in the Nushagak and Kvichak watersheds [is] premature, speculative, without precedent, illegal in terms of both process and substance, and unnecessary."<sup>443</sup> The State emphasized its objections to the Section 404(c) and BBWA processes, which are summarized in Sections V.B, VI.A.2, and VI.B.<sup>444</sup>

## C. The Pebble Partnership's Response

On March 11, 2014, the Pebble Partnership likewise requested an extension of the 15-day response period. The Pebble Partnership concurred with the State of Alaska's request that the process be tolled until a permit application has been submitted. On March 13, EPA granted a 45-day extension but denied the request to toll the process. On March 25, EPA met separately with the Pebble Partnership to discuss its intent to proceed and provide the Partnership with an opportunity to be heard regarding its objections.

On April 29, 2014, the Pebble Partnership submitted its response to EPA's Notice of Intent. In addition to identifying a number of scientific and technical issues, the Pebble Partnership raised five primary process-related arguments in opposition to the Agency's invocation of Section 404(c), which were quite similar to the concerns raised by the State of Alaska:

- Section 404(c) does not authorize EPA to take preemptive action against the Pebble project;
- EPA should wait for the Corps' Clean Water Act and NEPA review prior to invoking Section 404(c);

- The BBWA does not provide a legitimate basis for Section 404(c) action;
- A Section 404(c) veto would violate the Alaska Statehood Act and Alaska National Interest Lands Conservation Act; and
- The harms of a preemptive veto greatly outweigh EPA's stated benefits. 450

## D. EPA's Response to the Notice of Intent Criticisms

EPA acknowledged that the response letters "raised a number of legal, policy, scientific, and technical issues, including questions regarding EPA's authority to initiate a Section 404(c) review at this time, the scientific credibility of the [BBWA], and whether the [BBWA] should be used to inform decision-making under Section 404(c)." But EPA persisted in its belief that "unacceptable adverse effects on fishery areas [would] occur" in the Bristol Bay Area "should the disposal of dredged or fill material associated with mining the Pebble Deposit Area proceed." It therefore decided to move forward with the Section 404(c) review process and publish a proposed determination. 453

### IX. EPA'S SECTION 404(C) PROPOSED DETERMINATION

On July 18, 2014, EPA Region 10 issued the Proposed Determination. The Proposed Determination, a 214-page document, summarized the pre-application efforts and exploration in the Pebble Deposit Area; presented an overview of aquatic resources in the Bristol Bay watershed; described EPA-determined direct and secondary effects of the discharge of dredged and fill materials associated with the construction and operation of a hypothetical 0.25 billion-ton mine on three watersheds in the Bristol Bay area; proposed restrictions; and noted other considerations bearing on potential development activity. EPA invoked Section 404(c) "because of the high ecological and economic value of the Bristol Bay watershed and the assessed unacceptable environmental effects that would result from such mining."

In Section 5 of the Proposed Determination, the Region 10 Administrator proposed that EPA:

restrict the discharge of dredged or fill material related to mining the Pebble deposit into waters of the United States within the potential disposal site that would individually or collectively, result in any of the following.

#### 1. Loss of Streams

- a. The loss of 5 or more linear miles of streams with documented anadromous fish occurrence; **or**
- b. The loss of 19 or more linear miles of tributaries of streams where anadromous fish are not currently documented, but that are tributaries of streams with documented anadromous fish occurrence; **or**
- 2. **Loss of wetlands, lakes, and ponds**. The loss of 1,100 or more acres of wetlands, lakes, and ponds contiguous with either streams with documented anadromous fish occurrence of tributaries of those streams: **or**
- 3. **Streamflow alterations.** Streamflow alterations greater than 20% of daily flow in 9 or more linear miles of streams with documented anadromous fish occurrence. 456

EPA derived these restrictions from "estimated impacts resulting from the discharge of dredged or fill material" associated with the hypothetical 0.25 billion-ton mine, as evaluated in and based on certain assumptions in the BBWA. In other words, the restrictions would preclude the issuance of a Section 404 permit for a mine with a footprint greater than the 0.25 billion ton hypothetical mine.

EPA's conclusion that the discharges occasioned by mining activity could have unacceptable adverse effects was based on several factors, including: the loss of fish habitat occasioned by the mine footprint; the particular importance of that habitat to juvenile salmon; the degradation of additional downstream salmon-rearing habitat (as well as spawning areas); the resulting erosion of genetic diversity that is key to the uniquely abundant wild Bristol Bay

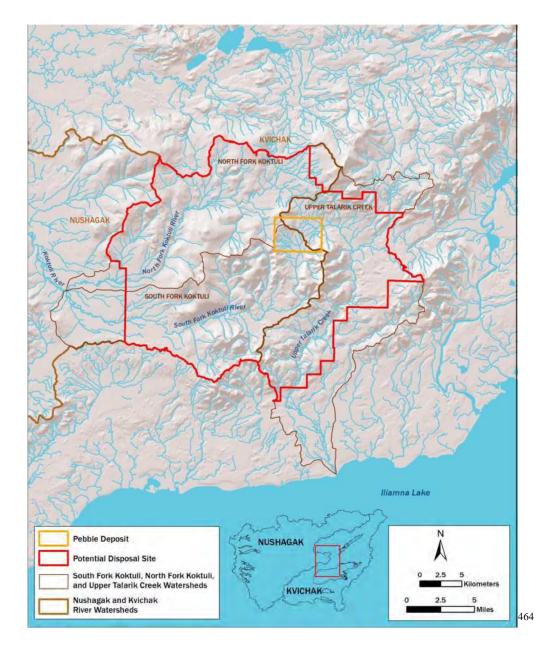
salmon stocks; and the strong connection between the near total absence of current perturbation in the South Fork Koktuli River, North Fork Koktuli River, and Upper Talarik Creek watersheds and the health of the Bristol Bay's salmon stocks. 458

EPA did not explain in the Proposed Determination how it drew the line at the 0.25 billion ton size; that is, how EPA concluded that a 0.25 billion ton mine might be permittable, but a mine of a larger size would not. EPA also declined to consider compensatory mitigation, a topic that EPA has repeatedly noted is addressed during the permit application process, on the ground that "[k]nown compensatory mitigation techniques are unlikely to offset impacts of the nature and magnitude described in the proposed restrictions."

## A. Standard for Imposing Restrictions

EPA interprets Section 404(c) as authorizing it, at any time, to prohibit, deny, or restrict the use of "any defined area" for specification as a disposal site for the discharge of dredged or fill material after determining that such a discharge "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife or recreation areas."<sup>460</sup>

The Pebble Partnership has not yet submitted a permit application for development of the mine, and EPA acknowledged that the Pebble deposit is "not yet defined." In an effort to satisfy the threshold requirement that a defined area be identified, EPA delineated its own boundary for the mine. EPA focused on the geographic areas that fall within the South Fork Koktuli River, North Fork Koktuli River, and Upper Talarik Creek watersheds. 463



The size of the potential disposal site, as defined by EPA, is 268 square miles (693 km²). 465 EPA assumed that a mine within the Pebble Deposit Area would include the major components of an open mine pit, waste rock piles, and one or more TSFs, as well as support facilities; however, EPA stated that "[i]t is important to note that the spatial extent of habitat loss and the salmon species directly affected by such loss are entirely dependent on the placement of major mine components within the South Fork Koktuli River, North Fork Koktuli River, and Upper Talarik Creek watersheds."

## **B.** Public Comment

EPA invited public comment on the Proposed Determination until September 19, 2014 and conducted seven public hearings scheduled during August 12-15, 2014.<sup>467</sup> On August 1, 2014, the State of Alaska requested that EPA reschedule the hearings to dates 45 days later and extend the public comment deadline for 60 days until November 18, 2014.<sup>468</sup> The extension request was premised on three grounds: (1) the State did not have adequate time to review the Proposed Determination, which was "roughly 200 pages long with hundreds of cited reference materials;" (2) in light of no permit application pending, the expedited schedule "rush[ed] the opportunity" to review and comment on actions that would have "profound impacts on State lands and State regulatory rights and responsibilities;" and (3) the current comment period and hearing schedule overlapped with the seasonal field work (fishing, etc.) by the public and the State agencies.<sup>469</sup> Four days later, on August 5, 2014, EPA denied the State's extension request.<sup>470</sup>

More than 830 community members participated in the seven hearings.<sup>471</sup> The majority of the statements made at the hearings and the written comments submitted urged EPA to move forward with a Final Determination on the Pebble project under Section 404(c).<sup>472</sup> In addition, EPA received more than 671,000 written comments.<sup>473</sup>

# C. The State of Alaska's Response to the Proposed Determination

On September 19, 2014, the State of Alaska advised EPA that its Section 404(c) process was "unlawful, premature, and not scientifically defensible in a number of key respects," requested that EPA refrain from proceeding with the process, and provided legal, procedural, and technical criticisms of the Proposed Determination.<sup>474</sup> The State maintained that EPA's "unprecedented 'proactive watershed planning' [was] premature, and unlawfully intrudes upon

State sovereign rights and responsibilities" and reiterated its prior concerns raised in connection with the BBWA and Notice of Intent.<sup>475</sup>

The State also raised a number of technical objections to the Proposed Determination, a number of which emphasized that the State's expertise was disregarded in EPA's review of the potential Pebble mine project:

- "The reliance in Section 404(c) on the subjective interpretation of regulators as the threshold for technical evaluation and findings results in a fundamentally flawed regulatory process, especially because it lacks the input and expertise of other state and federal regulators that occurs during a review of an application under the 404(b)(1) guidelines;"<sup>476</sup>
- "EPA's proposed determination of thresholds and restrictions appear[s] to be based on mischaracterized impacts and their significance and do[es] not consider at all the robustness and completeness of the State's regulatory processes, or collectively the State and federal permitting process;" 477 and
- "Agencies such as the Corps, the Alaska Departments of Environmental Conservation (DEC), Fish & Game, Natural Resources (DNR) and EPA would participate in a NEPA review of any actual application, and include regulatory staff with specialized expertise on a wide array of topics and disciplines, on many of which EPA does not have relevant expertise."

## D. The Pebble Partnership's Response to the Proposed Determination

On September 19, 2014, the Pebble Partnership filed its response and objections with EPA, urging EPA to withdraw its Proposed Determination in favor of an environmental impact assessment based on a proposed development plan and site-specific data. The Partnership challenged EPA's authority to act preemptively under Section 404(c) and offered extensive criticism as to the legal sufficiency, analyses, and factual underpinnings of EPA's conclusions, omissions, and proposed restrictions.

## E. EPA's Response to Criticisms of the Proposed Determination

In response to critical media attention, EPA's Region 10 Administrator wrote a letter to the editor published in *The Wall Street Journal* justifying EPA's actions:

Bristol Bay is a wild and largely undisturbed watershed that is home to the world's greatest sockeye salmon fishery. It's an economic powerhouse supporting 14,000 jobs and a subsistence way of life for Bristol Bay's Alaska Natives for more than 4,000 years. People who rely on those jobs and resources have been living under a cloud of uncertainty for years as the Pebble Partnership has pledged repeatedly, yet failed, to apply for a Clean Water Act permit to develop the mine. As described by the last remaining Pebble partner in documents filed with the Securities and Exchange Commission, the Pebble mine could result in a pit as deep as the Grand Canyon and produce up to 10 billion tons of acid-generating waste.

EPA staff spent three years evaluating science, conducting hearings and reviewing one million public comments in developing the Bristol Bay Watershed Assessment. That process included two independent peer reviews and a robust public outreach process in which Pebble Partnership readily participated. No process could have been more transparent and inclusive of all views, including for proponents of the Pebble Mine.

The EPA subsequently initiated the multistep Clean Water Act 404(c) evaluation process in February 2014 and is still in the midst of that process. A quick search by Ms. Strassel would have revealed that the EPA hasn't even proposed, much less issued, a "pre-emptive veto of the Pebble Mine." Rather, we have merely proposed restrictions on the size of large-scale mining at the Pebble site with the goal of protecting the most lucrative sockeye fishery on the planet.

Clean Water Act Section 404(c) is an authority Congress granted the EPA to protect our nation's most important natural resources. The EPA applies this authority judiciously, having used it only 13 times in the last 42 years. In contrast, the Army Corps of Engineers and the EPA approve thousands of 404 permits each year....<sup>481</sup>

Proceedings regarding the Proposed Determination have been stayed pending the outcome of litigation described in Section X.E.2.

## X. LITIGATION AND INVESTIGATIONS

EPA's preemptive use of Section 404(c) in connection with the Pebble Deposit Area has given rise to investigations and civil legal actions. These are summarized below.

## A. House Committee on Oversight and Government Reform Investigation

The House Committee on Oversight and Government Reform has been conducting an investigation into EPA's actions as they relate to the Pebble Deposit Area. On May 10, 2012, Darrell Issa, the then-Chairman of the Committee, along with Representative Jim Jordan, sent EPA Administrator Jackson a letter stating that the Committee had been "following the recent developments over preliminary environmental permitting for copper and other mineral extraction in Southwest Alaska near Bristol Bay known as the Pebble Project" and asking her to answer a series of questions in order to "assist the Committee with its understanding of EPA's authority to issue a preemptive veto under Section 404(c) of the CWA[.]" Our research did not reveal any record of a response from EPA.

Representatives Issa and Jordan asked Mr. North, the now retired EPA employee who was an author of the BBWA and who helped develop the hypothetical mine scenarios that EPA analyzed in its watershed assessment, to appear voluntarily for an interview on two separate occasions. Mr. North declined to appear both times. A Committee spokeswoman stated that Mr. North had "gone to great lengths to avoid cooperating with the committee." We also sought to interview Mr. North, but his attorney did not respond to our inquiries. Our research suggests that Mr. North maintains a home in Alaska but now resides outside of the country.

The House Committee also subpoenaed EPA to produce documents "relating to EPA's permit review, including any action under section 404(c) of the Clean Water Act, in Bristol Bay, Alaska." EPA subsequently reported "a potential loss of electronic documents belonging to Phil North." The potential records loss relates to email records sent to or from Mr. North's "epa.gov" email account between April 2007 and May 2009 and files sent to or from Mr. North's personal email address relating to government business that he did not forward to government computer systems. Documents produced in response to FOIA requests confirm that Mr.

North's computer crashed and that his computer files had not been backed up. <sup>490</sup> Forensic efforts have been successful in restoring some of the records, but production remains incomplete and it is unknown whether all records will be recovered.

# B. Senate Committee on Environment and Public Works Investigation

On February 20, 2013, members of the Senate Committee on Environment and Public Works wrote to EPA Acting Administrator Bob Perciasepe to "express [their] concern for actions taken by the Environmental Protection Agency (EPA) pursuant to authority the agency claims to have under the Clean Water Act (CWA)." <sup>491</sup> Referring to EPA's interpretation of the Clean Water Act as "unreasonable and contrary to both the plain text of the CWA and its legislative history," they asked Acting Administrator Perciasepe to answer a number of questions related to EPA's Bristol Bay Watershed Assessment and its use of Section 404(c). <sup>492</sup> Our research did not reveal any record of a response from EPA. The Senate Committee Republicans also explored EPA's allegedly nontransparent email- and record-keeping practices and published a report in September 2013, asserting that Administrator Jackson used a "secondary, alias email account," that EPA employees used personal email accounts for official business, and that EPA responded to FOIA requests poorly and with too many exemptions. <sup>493</sup>

## C. Joint Congressional Investigation

In September 2014, as part of a joint investigation, Representative Issa and Senator Vitter of the Senate Environment and Public Works Committee inquired into alleged collusion between environmental non-governmental organizations and EPA. The joint committee sent letters to EPA Administrator McCarthy and NRDC then-President Frances Beinecke requesting information noting that:

documents obtained by OGR confirm that the NRDC significantly shaped EPA's decision to severely limit the operation of the proposed Pebble Mine in Bristol Bay, Alaska under section 404(c) of the Clean Water Act. It appears that the NRDC's unprecedented

access to high-level EPA officials allowed it to influence EPA policy decisions and achieve its own private agenda. Such collusive activities provide the NRDC, and their financial backers, with an inappropriate opportunity to wield the broad powers of the executive branch. Such unprecedented access also violates the due process principles found in the Administrative Procedure Act (APA).<sup>494</sup>

In November 2014, the NRDC responded to the joint committee's request by providing approximately 450 emails to Senator Vitter and Representative Issa, some of which Senator Vitter later released to the public. NRDC's Director of Government Affairs wrote that the investigation constituted "an illegitimate fishing expedition designed to intimidate advocates of policies that Senator Vitter disagrees with" that sets "a dangerous precedent that represents a threat to anyone on any part of the political spectrum who is seeking to affect the policies of a federal agency, a fundamental activity in a democracy." Our research did not reveal any record of a response from EPA.

## D. EPA Inspector General Investigation

In May 2014, EPA's Office of Inspector General launched an investigation to "determine whether the [EPA] adhered to laws, regulations, policies and procedures in developing its assessment of potential mining impacts on ecosystems in Bristol Bay, Alaska." The Inspector General initiated its investigation after receiving "congressional requests and hotline complaints" regarding the issue. The Inspector General initially requested: (1) a list of EPA personnel involved in the BBWA; (2) a timeline of the activities performed by EPA to complete the assessment; (3) a list of stakeholders who were involved before and during the assessment; and, (4) an accounting of the report's costs. Since initiating this investigation, the Pebble Partnership has sent the Inspector General more than a dozen letters detailing its concerns with EPA's actions. The investigation is ongoing.

# E. Litigation Instituted by the Pebble Partnership Against EPA

## 1. Administrative Procedure Act Litigation

On May 21, 2014, the Pebble Partnership filed suit against EPA in the United States District Court for the District of Alaska, claiming its Section 404(c) action on the Pebble Mine project was a violation of federal law.<sup>502</sup> Numerous parties intervened and joined the action, including the State of Alaska, as a Plaintiff, and the NRDC, the United Tribes of Bristol Bay, Nunamta Aulukestai, BBNC, and Trout Unlimited, as Defendants.<sup>503</sup> The Court dismissed the lawsuit on September 26, 2014, holding that the initiation of a Section 404(c) action does not constitute a final agency action, thereby making the challenge premature.<sup>504</sup> The Ninth Circuit upheld the dismissal on May 28, 2015.<sup>505</sup>

# 2. Federal Advisory Committee Act Litigation

On September 3, 2014, the Pebble Partnership filed an action against EPA and Administrator McCarthy in the United States District Court for the District of Alaska, alleging that the Agency colluded with three categories of Pebble mine opponents to develop and implement a plan to invoke Section 404(c) in violation of the Federal Advisory Committee Act and seeking injunctive relief.<sup>506</sup> On November 25, 2014, the court granted the Pebble Partnership's request for a preliminary injunction, stating that EPA and Administrator McCarthy:

are enjoined and restrained from taking any action in furtherance of a decision to veto a possible Pebble (Bristol Bay area) mine project pursuant to Section 404(c) of the Clean Water Act until after the court has ruled on the merits of plaintiff's complaint. More particularly, defendants and the regional administrator for EPA Region 10 shall not issue any recommendation on a pending proposed determination regarding the Pebble Mine project until after the court has ruled on the merits of plaintiff's complaint. <sup>507</sup>

On June 4, 2015, the court granted in part and denied in part EPA's motion to dismiss the complaint, holding that, while the Pebble Partnership failed to plead a plausible claim that EPA "established" two of the three opponent groups as required for the Act's applicability, the

Partnership adequately stated a claim that EPA had "utilized" the three groups within the meaning of the Act.<sup>508</sup> The remaining claims are currently pending in Alaska federal court, with the injunction still in place.

On August 27, 2015, the Court granted the Pebble Partnership's request for a subpoena of Mr. North, noting that Mr. North's testimony is "necessary" to "shed[] meaningful light upon whether or not unauthorized advisory committees were created or utilized in connection with preparation of the Bristol Bay water assessment." The court ordered that Mr. North be deposed on November 12, 2015 in Anchorage, Alaska. 510

## 3. FOIA Litigation

On October 14, 2014, the Pebble Partnership initiated a civil action against EPA pursuant to FOIA, seeking declaratory and injunctive relief requiring EPA to produce documents regarding the Pebble Mine that were allegedly withheld improperly under FOIA.<sup>511</sup> EPA produced documents responsive to the Pebble Partnership's FOIA request. On August 4, 2015, the court issued a tentative disposition to resolve the case, holding that (1) EPA made a "*prima facie* showing of adequate response" to the Pebble Partnership's FOIA request despite "the apparent fact that the EPA's responses did not include any emails from former EPA Administrator Jackson's or Phillip North's personal email accounts" which would not be in EPA's possession; and (2) EPA's withholding of documents based on its deliberative process privilege objections should be evaluated in the context of discovery in the parties' Federal Advisory Committee Act litigation.<sup>512</sup> On August 31, 2015, the court held that, prior to dismissing the FOIA lawsuit, it would conduct an its own review of certain documents that EPA has withheld on privilege grounds to determine if they should be produced to the Partnership.<sup>513</sup>

### **CONCLUSION AND OBSERVATIONS**

My task in this independent review was not to comment on whether a mine should be built in the Pebble Deposit Area, whether the opponents or proponents of the mine have more defensible science, or whether EPA acted within the scope of its legal rights.<sup>514</sup> I will not comment on those subjects. My role was to comment on whether EPA acted fairly in connection with its evaluation of potential mining in the Bristol Bay watershed. After an analysis of thousands of documents and discussions with more than sixty stakeholders, I conclude that EPA's actions were not fair to all stakeholders. I find that:

The fairest and most appropriate process to evaluate possible development in the Pebble Deposit Area would use the established regulatory Permit/NEPA Process to assess a mine permit application, rather than using an assessment based upon the hypothetical mining scenarios described in the BBWA as the basis for imposing potentially prohibitive restrictions on future mines.

For the purposes of this review, I assume both that EPA had the authority to conduct a study of the Bristol Bay watershed and that EPA may invoke Section 404(c) at any time. My conclusion rests on the beliefs that: 1) the issue of whether mining should occur in the Bristol Bay watershed is of the utmost importance to the State of Alaska's environment, economy, people, and fish and wildlife; 2) EPA's decision was founded on analyses of hypothetical scenarios described in the BBWA, rather than an actual mine permit application; and 3) EPA's decision failed to address important considerations that would be included in the Permit/NEPA Process, including meaningful participation by other state and federal government agencies, a mine design (including mitigation and controls as proposed by the developer), and a thorough NEPA analysis.

The Permit/NEPA Process addresses important issues, such as the characteristics of a mine as it is actually planned to be built and maintained, mitigation in the context of an actual

mine plan, and economic and social factors (both favorable and unfavorable), which the BBWA authors—by their own admissions—did not consider. The Permit/NEPA Process also would have provided an important opportunity to employ the experiences of the Corps and the State of Alaska more meaningfully than what occurred. More detailed reasoning in support of this conclusion is set forth below.

### A. This decision is of the utmost importance to the State of Alaska.

There is widespread agreement that potential large-scale development in the Pebble Deposit Area is an issue of critical importance to the region and State. While reasonable minds may differ as to the potential risks and rewards arising from future mining or any large scale development in this region, every person with whom we spoke, collectively comprising a broad range of views about potential development, agreed that this is a decision of great consequence for the State of Alaska, its environment, its economy, its people, and its fish and wildlife.

# B. EPA's preemptive use of Section 404(c) under these circumstances is unprecedented. EPA should not experiment with a new decision-making process on a matter of such importance.

EPA has exercised its authority under Section 404(c) thirteen times since the passage of the Clean Water Act.<sup>515</sup> But by its own admission, EPA's application of Section 404(c) authority here, before any permit application for a mine in the Pebble Deposit Area has been filed, had "[n]ever been done before in the history of the [Clean Water Act]."<sup>516</sup> I have no quarrel with EPA's use of this authority in circumstances where a permit application has been filed or the actual specifications of a mine plan that includes strategies for controlling and mitigating environmental effects are known to EPA. But here, EPA's analysis rests upon a speculative foundation.

The stakes are far too high here to use the Bristol Bay watershed, and the massive mineral deposits that lie underneath State lands, as a laboratory to test an unprecedented

decision-making process. For a decision of this importance, EPA should assure fairness to all stakeholders by utilizing a well-established, widely-endorsed, and court-tested process to inform its decision-making.

C. A decision with such far-reaching effects should be made with the most comprehensive and complete information available. To the extent that regulators impose conditions on development, those conditions should be imposed only in the context of a specific permit application so as to be relevant and appropriate.

The well-established Permit/NEPA Process is the most accurate means of assessing environmental impacts of proposed development. Section I.B of the Background Facts describes this process. The Permit/NEPA Process involves a specific, regulatory process applied for decades in a wide variety of circumstances, has had many of its aspects tested in courts, and has been widely endorsed by environmental groups. As EPA has admitted in an internal document, the Permit/NEPA Process is more complete than the preemptive Section 404(c) process employed here: "[t]he permit and NEPA processes could generate a great deal more detailed environmental information and analysis upon which to base a decision . . . . [M]ore information would be available about the project and potential impacts." The Permit/NEPA Process analyzes the potential environmental effects of an actual mine plan described in a permit application, as opposed to hypothetical mine scenarios that, as EPA acknowledges, would differ from actual submitted plans. Indeed, EPA was cautioned that it had based its hypothetical scenarios, in part, on conceptual plans prepared by the Pebble Partnership years before that had "little relevance" to the Partnership's embryonic mining permit application. 19

EPA has claimed that relying on the hypothetical mine scenarios in the BBWA is akin to examining applicant-proffered alternatives during the Permit/NEPA Process.<sup>520</sup> Asserting that "all mining plans are hypothetical" misses the point.<sup>521</sup> The point is that an environmental impact assessment is bound to provide more accurate information if it is based on the mine that

will be built in accordance with the developer's plans, rather than a hypothetical mine plan which even EPA acknowledges is likely to be different from a developer-submitted plan. The essential information to be gained is what environmental effect likely would be caused by the developer's proposed mine, *not* what environmental effect likely would be caused by a mine which no one plans to build. As one peer reviewer put it:

The hypothetical nature of the approach presented in the original assessment document was sufficiently vague ... [that it] may limit its utility to risk decision-makers due to the high degree of uncertainty associated with the evaluation. 522

EPA's past actions seem to acknowledge this fundamental premise. In each of EPA's prior Section 404(c) actions, the Agency had a permit application to rely upon as the basis for its regulatory action. But here, for the first time in more than 40 years of applying the Clean Water Act, EPA invoked Section 404(c) without the benefit of a permit application.

The assumptions made at the outset of a scientific inquiry are crucial to the integrity of the analysis. Accordingly, when making a decision of this magnitude, the importance of using the most precise and accurate assumptions about the characteristics of the project when measuring that project's potential environmental effects cannot be overstated.

### D. EPA's Section 404(c) preemptive action based on the BBWA had serious gaps in its scope.

EPA relied upon the BBWA in its Proposed Determination to invoke Section 404(c) with respect to the Pebble Deposit Area. <sup>523</sup> But the BBWA authors acknowledged there were significant gaps in the assessment. EPA's admissions include:

- The BBWA was not designed to "duplicate or replace a regulatory process [the Permit/NEPA Process];" 524
- The BBWA did not include "an in-depth assessment of a specific mine;" 525
- "The exact details of any future mine plans . . . will differ from [the BBWA's] scenarios;" 526

- "Mitigation to compensate for effects on aquatic resources that cannot be avoided or minimized by mine design and operation would be addressed through a regulatory process that is beyond the scope of this assessment;" <sup>527</sup>
- "[A]ny formal determinations regarding compensatory mitigation can only take place in the context of a regulatory action. The Bristol Bay Assessment is not a regulatory action, and thus a complete evaluation of compensatory mitigation is outside the scope of this assessment;" (emphasis in the original) and
- The BBWA failed to include "an economic or social cost-benefit analysis." 529

Based upon EPA's analysis of the hypothetical mine scenarios, EPA concluded that a mine of a certain size (0.25 billion tons) and subject to certain conditions might be developed without an unacceptable adverse environmental effect, but that any larger mine *built with the characteristics assumed by EPA* was likely to produce an unacceptable environmental effect. This finding is of limited utility in determining whether a mine *built with the characteristics proposed by the developer* would avoid an unacceptable adverse environmental effect.

As discussed above, a more sound approach would be to render a decision as to whether a mine can be safely built by analyzing the characteristics of a proposed mine, not a hypothetical mine. EPA recognized that its hypothetical mine scenarios omitted mitigation measures which a developer might use to reduce environmental risks.<sup>530</sup> But the BBWA did not quantify how much these additional mitigation measures might reduce risk, which goes to the heart of the question of whether development would have unacceptable adverse effects on the surrounding environment.

I have discussed the concept of compensatory mitigation in Section VII.C. of the Background Facts. Virtually no major project will be permitted without incorporating substantial mitigation measures. Moreover, in the context of a permit application, the determination of appropriate mitigation is often an iterative process. Regulators will often insist upon mitigation measures beyond those described in a permit application to ensure that no unacceptable adverse effects occur to the environment. Developers then may agree and amend

their application, counter-propose another solution, or conclude they will not be able to construct an environmentally-safe project for a commercially-feasible cost, in which case they may choose to withdraw the permit application. But none of that happened here. EPA left compensatory mitigation analysis for another day.

The Pebble Partnership contends that the control measures it would employ are far more efficacious than those assumed in EPA's hypothetical mine scenarios. That may or may not be the case. (Indeed, since the Pebble Partnership has not yet filed a permit application, there is no way of knowing exactly what those control measures will be.) The only way to make this determination is to analyze those measures after the filing of a permit application, as is required during the Permit/NEPA Process.

The BBWA failed to include "an economic or social cost-benefit analysis." <sup>531</sup> The BBWA describes many potential adverse effects to the fish (particularly salmon) habitat, and the cultures and economy built around that resource. I respect and value those concerns. But in evaluating a project of this magnitude, greater certainty than was achieved through the BBWA is desirable concerning the potential adverse effects on the salmon population, and the potential benefits of the Pebble project should be considered as well. Just as detractors of the mine have pointed to enormous potential risks they perceive, so too have the mine proponents identified potentially enormous economic benefits for the region, the State, and the nation. All of this should be considered as part of the deliberative process, and NEPA requires that the Corps take into consideration economic and social factors relating to proposed projects, among a number of factors. <sup>532</sup>

## E. EPA inhibited the involvement of two key participants in the Permit/NEPA Process: the Corps and the State of Alaska.

The Corps serves as the project manager for the evaluation of all Section 404 permit applications and consults closely with EPA in discharging this responsibility.<sup>533</sup> On February 3,

2011, EPA advised the Corps of its intent to conduct the BBWA. After questioning EPA's authority and motives for such a study, the Corps declined to participate on the ground that it was "an independent decision maker." <sup>534</sup>

On February 28, 2014, EPA issued its Notice of Intent to proceed under Section 404(c) to the Corps and other interested parties. The Corps again declined to submit any information for the record, stating that it had "not received a permit application . . . and is therefore unable to evaluate the impacts of potential discharges associated with the Pebble deposit." <sup>535</sup>

The Corps' responses raise two concerns. First, the process EPA employed to assess the Pebble Deposit Area lacked any input or coordination from the Corps. If the Corps were evaluating a permit application and undertaking a NEPA review, it would evaluate effects and seek input from other relevant agencies. Second, the Corps' reaction further highlights the unorthodox approach of EPA. If the Corps was "unable to evaluate the impacts of potential discharges" based upon the available data, how was EPA able to do so?

Similarly, the State of Alaska's input was limited by EPA's process. This is particularly troubling given Alaska's strong interest in this matter, including the fact that the Pebble Deposit Area is located on State-owned land. In at least ten letters written between September 2010 and September 2014, State officials asked EPA to wait for an actual permit application before conducting an assessment or taking any action under Section 404(c). The State expressed to EPA that it:

finds itself in a 'damned if you do damned if you don't' situation. We are asked to cooperate in a process which, in our view, lacks authority and is inappropriate . . . . If we do cooperate, we are 'participating' in the process and our position is misrepresented. If we choose to ignore an assessment which is not lawfully grounded, it is argued we have forfeited our right to complain. <sup>537</sup>

On May 18, 2012, EPA released the first BBWA draft and provided a 60-day comment period. Salaska sought a 120-day extension to provide comment, noting that the assessment

was over 1,000 pages and referenced 2,000 documents upon which EPA apparently relied and that the comment period overlapped with an extraordinarily busy time of year devoted to subsistence hunting, fishing, and gathering activities.<sup>539</sup> EPA declined to extend the deadline, notwithstanding EPA's discretion to do so.<sup>540</sup> EPA's refusal to accommodate the landowner's request (that is, the State of Alaska) for additional time is difficult to understand and served to further limit the State's opportunity to provide meaningful input into a process that the State had already claimed was unfair and inappropriate.

This is not, in my view, how a federal agency should conduct itself in its relationships with state authorities. I recognize and respect the principles of federalism and EPA's congressionally-granted mandate to protect the environment and, in particular, the nation's waterways. But the BBWA was undeniably a detailed and complex document, and the State is an important stakeholder. I see no reason why EPA could not have worked more collaboratively with the State to give it additional time to voice its views. In the course of this review, I have spoken with prior EPA administrators who have underscored the importance of cooperative relationships with states affected by EPA actions.

\* \* \* \* \*

There are a number of EPA statements and actions I observed during this review, and which are described in more detail in the Background Facts, that are troubling. The factual record concerning this matter is not yet fully developed. So I allow that there may be benign explanations for these actions, and that EPA may be able to establish that its personnel's motivations were wholly consistent with the Agency's mission of preserving the environment. But if I were responsible for leading this agency, and I speak from experience having been a Secretary of Defense, these issues would cause me to ask questions about the integrity of the process EPA used here. In particular, I would focus upon the following:

<u>First</u>, there is information suggesting that EPA decided the outcome—the exercise of Section 404(c) authority to limit development in the Pebble Deposit Area—before it conducted the assessment designed to inform such a judgment. EPA did not announce until February 2011 that it was proceeding with the BBWA to "inform any future guidelines or actions." Yet documents created before that date indicate that "EPA leaders [had] decided to proceed [with a Section 404(c) action] and they [were] just deciding when." By no later than October 2010, still before the BBWA had begun, EPA Region 10 requested funds to initiate an action under Section 404(c). 543

Second, as a corollary to the first issue described above, there is evidence that certain EPA officials had inappropriately close relationships with anti-mine advocates, which lends additional support to the notion that EPA may have prejudged this matter prior to conducting the BBWA. For example, the Petitioning Tribes' lawyer shared a draft of his clients' petition requesting that EPA assert its Section 404(c) authority, and other "attorney-client privileged" materials, with EPA's Phil North more than three months before the petition was filed.<sup>544</sup> During that same time period, Mr. North wrote to a scientist affiliated with environmental nongovernmental organizations, which had publicly announced their opposition to mine development, and provided her with a draft outline of a preliminary ecological assessment aimed at evaluating the effects of a mine in the Pebble Deposit Area, and asked for help on EPA's draft.<sup>545</sup> There are other examples described in the Background Facts and Appendix C that collectively suggest an intimate relationship between the regulator and interest groups, and that the BBWA was designed to support a pre-existing conclusion, rather than inform a decision to be made after the assessment.<sup>546</sup>

Third, I am concerned from this record about EPA's level of candor with respect to certain of its actions. When the Pebble Partnership raised concerns in early 2011 about how the

BBWA might be used, EPA assured Pebble that it was "not using the Assessment to make a decision under our section 404(c) authority."<sup>547</sup> But that is what EPA did. In 2014, when EPA issued its Proposed Determination to use its authority under Section 404(c), it based this decision upon "the assessed unacceptable environmental effects that would result from such mining."<sup>548</sup> The assessment to which EPA referred was the same assessment which EPA had earlier advised would *not* be the basis for a decision to exercise Section 404(c).

Similarly, EPA stated that it was undertaking the BBWA "in response to concerns from federally recognized tribes and others who petitioned the agency in 2010 [to] assess any potential risks to the watershed."<sup>549</sup> But EPA was not responding to an unsolicited petition, as it implied. In fact, EPA personnel received a draft petition months in advance of its formal delivery, and EPA had been internally strategizing about a potential Section 404(c) action, with or without an assessment, long before it received the petition. <sup>550</sup>

EPA repeatedly assured independent peer reviewers analyzing BBWA drafts that certain issues the reviewers identified as lacking in the BBWA would be "addressed through a regulatory process that is beyond the scope of the assessment." But one month after publishing the BBWA, EPA announced its intent to proceed with its Section 404(c) authority. This action foreclosed the very same "regulatory process" that EPA had stated would occur to address the shortcomings in the BBWA analysis.

Fourth, there is a fundamental inconsistency between the BBWA and the Proposed Determination. The BBWA identified a myriad of risks associated with the development of all three hypothetical mine scenarios.<sup>552</sup> Many of these risks were potentially quite serious; they included wastewater treatment plant failure, blockage of culverts during mine operation, indirect effects of stream and wetland losses on the quality of downstream habitat for fish, impact on Alaska Native cultures, and multiple failures of infrastructure in the event of a natural or man-

made disaster. The effects of these risks on the primary endpoints of the BBWA were not quantified for any of the three mine scenarios. As a result of the BBWA's failure to quantify the effects of these risks, the assessment did not distinguish between the amount of risk posed by a 6.5 billion ton mine (Scenario 1), a 2.5 billion ton mine (Scenario 2), or a 0.25 billion ton mine (Scenario 3).

But EPA did distinguish among the risks posed by these different mine scenarios in its Proposed Determination. The Proposed Determination effectively limited mine development in the Pebble Deposit Area to a size that corresponds with the footprint of the hypothetical 0.25 billion ton mine described in the BBWA. Yet, the Proposed Determination contains no explanation by EPA as to how it concluded that the "Pebble 0.25 mine" was not reasonably likely to cause an unacceptable adverse impact, but that a larger mine was reasonably likely to do so. There may be a rational basis for distinguishing the environmental impacts of the different hypothetical scenarios in this manner, but EPA has not articulated it.

<u>Fifth</u>, there remains the issue of the lack of cooperativeness of EPA personnel in response to Congressional queries and FOIA requests. The House Committee on Oversight and Government Reform asked Mr. North to voluntarily appear for an interview in July 2013. As of this writing, Mr. North still has not agreed to speak with Congressional investigators and is reported to be residing outside the United States. Only a portion of his files have been made available in response to FOIA requests. Some of Mr. North's documents and emails are missing as a result of a "crash" of his computer in September 2010, and his use of his personal email account to correspond with third parties appears to have violated EPA policies.<sup>553</sup>

The facts described above raise concerns as to whether EPA has met certain core obligations of government service and accountability. Government agencies owe a duty of fundamental fairness to the public. This includes conducting agency business with openness,

fairness, and candor towards those they serve. Making decisions before a complete analysis is undertaken does not fulfill those duties. And the lack of appearance of fairness, also present here, is of import as well. EPA exercises prodigious power, and rightly so; the protection of the environment is one of the federal government's most important responsibilities. But government cannot retain respect and legitimacy if it fails to act with candor, or hides or withholds material information in its decision-making process or reaches a conclusion before conducting its assessment.

The statements and actions of EPA personnel that are recounted here and more fully in the Background Facts raise serious concerns as to whether EPA orchestrated the process to reach a predetermined outcome. But I have not attempted to reach conclusions on that issue for several reasons. First, any findings on that issue would not affect my overarching conclusion discussed at the beginning of this section. Second, the record remains incomplete as to why EPA elected to adopt this novel decision-making path. EPA declined my requests to cooperate with this review, and I lack the subpoena power necessary to compel a review of the full record surrounding the underlying facts. Thus, I urge EPA's Inspector General and Congress to continue to develop the record which might further illuminate EPA's motives. Third, there are inherent difficulties in divining the intent of individuals and organizations, even on a full record. I am mindful that EPA's mission is to protect the environment, and thus personnel may have been animated by motives wholly consistent with their organization's mission. And there may be benign explanations for the document retention issues which have come to light. If Mr. North's deposition proceeds in November as ordered by the Alaska court, his testimony may resolve these issues. But what the record has revealed thus far causes sufficient concern to merit continued probing by those with authority to flesh out the record.

Congress also may wish to review EPA's apparent effort to use Section 404(c) to accomplish national watershed planning. EPA personnel stated in a document prepared for a briefing of the Administrator that a Section 404(c) action could "serve as a model of proactive watershed planning." The Clean Water Act has been in existence for more than 40 years, and during that period EPA has exercised its Section 404(c) authority just thirteen times. If it is EPA's intention to establish such a "model," legislative oversight may be appropriate to assess whether such action is within EPA's mandate and the implications of such a policy.

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It is my hope that the policymakers involved in charting the course of the Bristol Bay watershed's future find this report helpful. I have tried to describe the history of EPA's actions accurately and objectively. As we look to the future, I urge policymakers to consider requiring the use of the Permit/NEPA Process. This process, which entails compliance with NEPA and other regulatory requirements, an environmental impact statement, and input from EPA, other relevant agencies, and the State of Alaska, will supply the gaps in information which the BBWA left outstanding. This decision is too important to be made with anything less than the best and most comprehensive information available.

The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.

<sup>&</sup>lt;sup>i</sup> See Background Facts at Sections II.D.1 and II.D.3.

ii See id. at Sections II.A and II.D.3.

iii See id. at Section II.A.

iv See id. at Section II.C.

<sup>&</sup>lt;sup>v</sup> See id. at Section IX.

vi See Independence and Methodology.

vii See id.

viii See id.

ix See id.

<sup>&</sup>lt;sup>x</sup> See Background Facts at Sections IV.A, IV.C, IV.E, and VIII.

xi See id. at Sections II.D.3, VII, and IX.

xii See id. at Sections IX.C-D.

xiii Clean Water Act § 101(a), 33 U.S.C.A. § 1251(a) (West 2015); see Background Facts at Section I.A.

xiv See Background Facts at Section I.B.

xv See id.

xvi See id.

xvii See id.

xviii See id.

xix 33 U.S.C.A. § 1344(c); *see* Background Facts at Section I.C. The full text of Section 404(c) provides that:

xx 40 C.F.R. § 231.3(a) (2010); see Background Facts at Section I.C.

xxi See Background Facts at Section I.C.

xxii See id. Technically, in one of these cases, there was no permit application, however EPA did rely on the permit application of two adjacent and separately-owned parcels to make the

determination. EPA deemed the parcel to have the same characteristics as the other two properties and applied its Section 404(c) action to all three properties based on their coextensive characteristics. *See Chronology of 404(c) Actions*, EPA (Sept. 23, 2013), <a href="http://water.epa.gov/lawsregs/guidance/wetlands/404c.cfm">http://water.epa.gov/lawsregs/guidance/wetlands/404c.cfm</a>.

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xxiii EPA, DISCUSSION MATRIX (Sept. 8, 2010), at 1; see Background Facts at Section IV.E.
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xxiv See Background Facts at Section III.C.

xxv See id. at Sections III.D, IV.B, VI.A.2, and VI.B.

xxvi See id. at Sections III.E, IV.B, VI.A.2, VI.B, and IX.C-D.

xxvii See id. at Section IV.B.

xxviii See id.

xxix See id.

xxx See Background Facts at Section V.B.

xxxi See id. at Sections IV.D, IV.G, and V.B.

xxxii See id. at Section V.B.

xxxiii See id.

xxxiv See id.

xxxv See id. at Section VII.A.

xxxvi See Background Facts at Sections VI-VII.

xxxvii See id. at Sections VI.A.2 and VI.B.

xxxviii See id.

xxxix See id.

xl EPA, Response to Peer Review Comments on the May 2012 and April 2013 Drafts of An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay 65-66 (2014); *see* Background Facts at Section VI.A.3.

EPA, RESPONSE TO PEER REVIEW COMMENTS ON THE MAY 2012 AND APRIL 2013 DRAFTS OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY 65-66, 114-115 (2014); see Background Facts at Section VI.A.3.

xlii See Background Facts at Section VII.

xliii See id. at Section VII.A.

xliv See id.

xlv See id; see also id. at Section IX.

xlvi See id. at Section VIII.

xlvii See Background Facts at Sections VIII, VIII.B-C.

xlviii See id. at Section VIII.A.

xlix See id. at Sections VIII.B-C.

All documents relating to or referencing a mining project in southwest Alaska sometimes called the Pebble project, the PLP mine project, or the Pebble Mine (the "Project"), or relating to or referencing any of the Project's associated features or any parties interested in developing the Project (Pebble Limited Partnership, Northern Dynasty Minerals Ltd., etc.).

<sup>&</sup>lt;sup>1</sup> See id. at Section VIII.D.

li See id. at Section IX.

lii See id.

liii See Background Facts at Section IX.

liv See id. at Section X.E.

<sup>&</sup>lt;sup>lv</sup> See Conclusion and Observations.

lvi See id.

lvii See id.

lviii See id.

lix See id.

lx See id.

lxi See Conclusion and Observations.

lxii See id.

lxiii See id.

<sup>&</sup>lt;sup>1</sup> The FOIA requests sought, among other things:

<sup>&</sup>lt;sup>2</sup> EPA History, EPA (Nov. 19, 2014), <a href="http://www2.epa.gov/aboutepa/epa-history">http://www2.epa.gov/aboutepa/epa-history</a>.

<sup>&</sup>lt;sup>3</sup> Our Mission and What We Do, EPA (Oct. 6, 2014), <a href="http://www2.epa.gov/aboutepa/our-mission-and-what-we-do">http://www2.epa.gov/aboutepa/our-mission-and-what-we-do</a>.

<sup>&</sup>lt;sup>4</sup> EPA Organization Chart, EPA (Aug. 27, 2015), <a href="http://www2.epa.gov/aboutepa/epa-organization-chart">http://www2.epa.gov/aboutepa/epa-organization-chart</a>.

<sup>&</sup>lt;sup>5</sup> *Id.*; *EPA Region 10 (Pacific Northwest)*, EPA (Aug. 4, 2015), <a href="http://www2.epa.gov/aboutepa/epa-region-10-pacific-northwest">http://www2.epa.gov/aboutepa/epa-region-10-pacific-northwest</a>. EPA's twelve separate offices are: Office of Administration and Resources Management; Office of Air and Radiation; Office of Chemical Safety and Pollution Prevention; Office of the Chief Financial Officer; Office of Enforcement and Compliance Assurance; Office of Environmental Information; Office of General Counsel; Office of Inspector General; Office of International and Tribal Affairs; Office of Research and Development; Office of Solid Waste and Emergency Response; and Office of Water.

<sup>&</sup>lt;sup>6</sup> About the Office of Water, EPA OFFICE OF WATER (July 2, 2015), <a href="http://www2.epa.gov/aboutepa/about-office-water">http://www2.epa.gov/aboutepa/about-office-water</a>.

<sup>&</sup>lt;sup>7</sup> *Id*.

<sup>&</sup>lt;sup>8</sup> Office of Science and Technology (OST), EPA OFFICE OF WATER (July 2, 2015), http://www2.epa.gov/aboutepa/about-office-water#science.

<sup>&</sup>lt;sup>9</sup> EPA, Proposed Determination of the U.S. Environmental Protection Agency Region 10 Pursuant to Section 404(c) of the Clean Water Act, Pebble Deposit Area, Southwest Alaska 6-9 (2014) [hereinafter Proposed Determination]; *see also, Environmental Justice: Basic Information: Background*, EPA (May 24, 2012), <a href="http://www.epa.gov/environmentaljustice/basics/ejbackground.html">http://www.epa.gov/environmentaljustice/basics/ejbackground.html</a>; *see* Exec. Order No. 12898, 59 FR 7629 (Feb. 11, 1994), *available at* <a href="http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf">http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf</a>.

Environmental Justice: Basic Information: Background, EPA (May 24, 2012), <a href="http://www.epa.gov/environmentaljustice/basics/ejbackground.html">http://www.epa.gov/environmentaljustice/basics/ejbackground.html</a>; see PROPOSED DETERMINATION, note 9 above, at 6-8.

<sup>&</sup>lt;sup>11</sup> *EPA's Tribal Strategy*, EPA (Sept. 3, 2015), <a href="http://yosemite.epa.gov/R10/TRIBAL.NSF/Programs/EPA's+Tribal+Strategy">http://yosemite.epa.gov/R10/TRIBAL.NSF/Programs/EPA's+Tribal+Strategy</a>.

<sup>&</sup>lt;sup>12</sup> Clean Water Act, 33 U.S.C.A. § 1251(a).

<sup>&</sup>lt;sup>13</sup> 33 U.S.C.A. § 1344(a); *see* 33 U.S.C.A. § 1344(q); Memorandum of Agreement between the EPA and the Department of the Army (Aug. 11, 1992), at Part I(1) [hereinafter Memorandum of Agreement].

<sup>&</sup>lt;sup>14</sup> 33 U.S.C.A. § 1344(b)(1).

<sup>&</sup>lt;sup>15</sup> Memorandum of Agreement, note 13 above, at Part I(1), I(5).

<sup>&</sup>lt;sup>16</sup> *Id.* at Part I(1).

<sup>&</sup>lt;sup>17</sup> See Processing of Department of the Army Permits, 33 C.F.R. § 325.3 (2015).

<sup>&</sup>lt;sup>18</sup> See 33 C.F.R. § 325.

<sup>&</sup>lt;sup>19</sup> The Corps, PowerPoint Presentation, What You Need to Know About 404 Permits, at 40, *available at* <a href="http://www.dnr.sc.gov/marine/NERR/present/regulations/Darden\_USACE">http://www.dnr.sc.gov/marine/NERR/present/regulations/Darden\_USACE</a> <a href="process.pdf">process.pdf</a>.

<sup>&</sup>lt;sup>20</sup> Council on Environmental Quality, 40 C.F.R. § 1508.18 (2010).

<sup>&</sup>lt;sup>21</sup> Cooperating Agencies, 40 C.F.R. § 1501.6; *see also* Webinar: What You Need To Know About Section 404 Permits, Presentation by Richard L. Darden, Ph.D., Regulatory Division, Charleston District, the Corps (last revised June 1, 2015) (available for purchase at <a href="http://www.lorman.com/training/what-you-need-to-know-about-section-404-permits">http://www.lorman.com/training/what-you-need-to-know-about-section-404-permits</a>).

<sup>&</sup>lt;sup>22</sup> See National Environmental Policy, 42 U.S.C.A. § 4332(c) (West 2015); 40 C.F.R. § 1508.27; 40 C.F.R. § 230.10(a)(4) (2012). As necessary and appropriate based upon the outcome of the environmental assessment, a supplemental environmental impact statement may be commissioned to study further the potential effects of a major federal action. Supplemental Environmental Impact Statements, 23 C.F.R. § 771.130 (2010).

<sup>&</sup>lt;sup>23</sup> American Jobs Now: H.R. 3548, the North American Energy Access Act: Hearing before the Subcomm. on Energy and Power of the H. Comm. on Energy and Commerce, 112th Cong. 4 (2012) (statement of Margaret Gaffney-Smith, Chief, Regulatory Program for the Corps).

The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.

<sup>&</sup>lt;sup>24</sup> EPA, CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION: A WATER QUALITY PROTECTION TOOL FOR STATES AND TRIBES 31 (2010), *available at* http://water.epa.gov/lawsregs/guidance/cwa/upload/cwa-401-handbook-2010-interim.pdf.

<sup>&</sup>lt;sup>25</sup> Why is the National Environmental Policy Act So Important?, NRDC (Feb. 1, 2015), <a href="http://www.nrdc.org/legislation/nepa-success-stories.asp">http://www.nrdc.org/legislation/nepa-success-stories.asp</a>.

<sup>&</sup>lt;sup>26</sup> Critical and Strategic Minerals Production Act of 2013: Hearing on HR 761 Before the Subcomm. On Energy and Mineral Resources of the H. Comm. on Natural Res., 113th Cong. 4 (2013) (statement of Jennifer Krill, Executive Director, Earthworks), available at <a href="https://www.earthworksaction.org/library/detail/testimony krill">https://www.earthworksaction.org/library/detail/testimony krill</a> 20130321 energymineralresour ces subc.

<sup>&</sup>lt;sup>27</sup> 40 Years of Success Stories with NEPA, THE WILDERNESS SOCIETY (Oct. 27, 2010), http://wilderness.org/blog/40-years-success-stories-nepa#sthash.uWakTBzr.dpuf.

Daniel Hubbell, Congress Considering Taking Public Out of Review Process for Water Projects, NATIONAL WILDLIFE FEDERATION (Feb. 21, 2014), <a href="http://blog.nwf.org/2014/02/congress-considering-taking-public-out-of-review-process-for-water-projects/">http://blog.nwf.org/2014/02/congress-considering-taking-public-out-of-review-process-for-water-projects/</a>.

<sup>&</sup>lt;sup>29</sup> 33 U.S.C.A. § 1344(c). The full text of Section 404(c) provides that:

<sup>&</sup>lt;sup>30</sup> 40 C.F.R. § 231.3(a).

<sup>&</sup>lt;sup>31</sup> Press Release, EPA, EPA Moves to Protect Bristol Bay Fishery from Pebble Mine (Feb. 28, 2014); *see* 40 C.F.R. § 231.3(a)(2); 33 C.F.R. § 325.8.

<sup>&</sup>lt;sup>32</sup> See Denial or Restriction of Disposal Sites; Section 404(c) Procedures, 44 Fed. Reg. 58,076 (Oct. 9, 1979); 40 C.F.R. §§ 231.1 - 231.8; PROPOSED DETERMINATION, note 9 above, at 1-1.

<sup>&</sup>lt;sup>33</sup> See 40 C.F.R. § 231.3(a)(1); PROPOSED DETERMINATION, note 9 above, at 1-1; see also U.S. ENVIRONMENTAL PROTECTION AGENCY, BRISTOL BAY CLEAN WATER ACT (CWA) SECTION 404(C) PROCESS (2015), available at <a href="http://www2.epa.gov/bristolbay/bristol-bay-404c-process">http://www2.epa.gov/bristolbay/bristol-bay-404c-process</a>.

<sup>&</sup>lt;sup>34</sup> 40 C.F.R. §§ 231.3(a)(2), (c)-(d), and 231.4(a); PROPOSED DETERMINATION, note 9 above, at 1-1; *see also* "Bristol Bay Proposed Determination" flow chart, *available at* <a href="http://www2.epa.gov/bristolbay/bristol-bay-404c-process">http://www2.epa.gov/bristolbay/bristol-bay-404c-process</a>.

<sup>&</sup>lt;sup>35</sup> 40 C.F.R. §§ 231.4 - .5; PROPOSED DETERMINATION, note 9 above, at 1-1.

<sup>&</sup>lt;sup>36</sup> 40 C.F.R. § 231.5(c); PROPOSED DETERMINATION, note 9 above, at 1-1.

<sup>&</sup>lt;sup>37</sup> 40 C.F.R. § 231.5(b); PROPOSED DETERMINATION, note 9 above, at 1-1.

<sup>&</sup>lt;sup>38</sup> 40 C.F.R. § 231.6; PROPOSED DETERMINATION, note 9 above, at 1-2.

<sup>&</sup>lt;sup>39</sup> 40 C.F.R. § 231.6; PROPOSED DETERMINATION, note 9 above, at 1-2. The Administrator has delegated the authority to make a final decision under Section 404(c) to the Assistant Administrator for Water, who is EPA's national Clean Water Act Section 404 program manager. PROPOSED DETERMINATION, note 9 above, at 1-2 n.6. However, as that position is currently vacant, the final 404(c) decision currently would be made by the Administrator.

<sup>&</sup>lt;sup>40</sup> 40 C.F.R. § 231.8.

<sup>&</sup>lt;sup>41</sup> EPA published a "Chronology of 404(c) Actions" that contains federal register notices, recommended and final determinations, and background information related to each finalized 404(c) action. *See Chronology of 404(c) Actions*, EPA (Sept. 23, 2013), <a href="http://water.epa.gov/lawsregs/guidance/wetlands/404c.cfm">http://water.epa.gov/lawsregs/guidance/wetlands/404c.cfm</a>.

<sup>&</sup>lt;sup>42</sup> In one instance, EPA used Section 404(c) to restrict the designation of three separately-owned and adjacent properties based upon a finding that the proposed rockplowing activity would result in unacceptable adverse effects. The Corps received permit applications for two of the three properties; a permit application was anticipated but not filed for the third property, which EPA deemed to have the same characteristics as the other two properties. Thus, EPA applied its Section 404(c) action to all three properties. Final Determination on Three Wetland Properties Owned by Henry Rem Estate, 53 Fed. Reg. 30,093 (Aug. 10, 1988).

<sup>&</sup>lt;sup>43</sup> EPA, DISCUSSION MATRIX (Sept. 8, 2010), at 1 [hereinafter DISCUSSION MATRIX].

<sup>&</sup>lt;sup>44</sup> See 33 U.S.C.A. § 1344(c); 40 C.F.R. § 231.1(a). The regulations implementing Section 404(c) are being challenged with respect to its preemptive use, and federal legislators have proposed bills that would prevent EPA from applying Section 404(c) prospectively (before permit application) or retroactively (after permit issuance). See, e.g., Regulatory Fairness Act of 2015, S. 54, 114th Cong. (2015); H.R. 1203, 114th Cong. (2015) ("H.R. 1203 - To amend the Federal Water Pollution Control Act to clarify that the Administrator of the Environmental Protection Agency does not have the authority to disapprove a permit after it has been issued by the Secretary of the Army under section 404 of such Act.").

<sup>&</sup>lt;sup>45</sup> See 33 U.S.C.A. § 1344(c); 40 C.F.R. § 231.1(a).

<sup>&</sup>lt;sup>46</sup> Denial or Restriction of Disposal Sites; Section 404(c) Procedures, 44 Fed. Reg. 58,076, 58,077 (Oct. 9, 1979); *see also* EPA, OPTIONS FOR EPA INVOLVEMENT IN MINING ACTIVITY IN THE BRISTOL BAY WATERSHED 7 (2010) (draft) [hereinafter OPTIONS PAPER] (stating that "[the Pebble Partnership] or any other project proponent could avoid spending tens of millions of dollars on a project EPA ARU program staff believe should be vetoed in the end") (tracked changes accepted).

<sup>&</sup>lt;sup>47</sup> Denial or Restriction of Disposal Sites; Section 404(c) Procedures, 44 Fed. Reg. 58,076, 58,077 (Oct. 9, 1979).

<sup>&</sup>lt;sup>48</sup> Compare General Policies for Evaluating Permit Applications, 30 C.F.R. § 320.4(a)(1) (2011) with 40 C.F.R. Part 231.

<sup>&</sup>lt;sup>49</sup> See Options Paper, note 46 above, at 4.

<sup>&</sup>lt;sup>50</sup> See EPA, AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 4-9, Box 4-2 (2014) [hereinafter BBWA]; see also ADNR, PowerPoint Presentation, An Overview – The Process for Large Mine Permitting in Alaska (2014), available at <a href="http://dnr.alaska.gov/mlw/mining/largemine/Imptprocess">http://dnr.alaska.gov/mlw/mining/largemine/Imptprocess</a> dnrwebsite color6perpage.pdf.

<sup>&</sup>lt;sup>51</sup> See BBWA, note 50 above, at 4-9, Box 4-2 (recognizing that before operation of a large, hardrock mine can begin, many permits and approvals are required and may require the following from Alaska departments: plan of operations approval; reclamation plan and bond approval; right-of-way for access and utilities; millsite lease; permit to appropriate water; dam safety certification; upland or tideland leases; material sale; winter travel permits; cultural resource authorization; mining license; waste management permit; Alaska pollutant discharge elimination permit; domestic and non-domestic wastewater disposal permits; certificate of reasonable assurance for 404 permits; stormwater discharge pollution prevention plan; air quality permits; air quality permits; approval to construct and operate in a public water supply system; plan review for non-domestic wastewater treatment system; plan review and construction approval for domestic sewage system; oil discharge prevention and contingency plan; fish passage permit; fish habitat permit; utility permit on right of way; driveway permit; approval to transport hazardous materials; life and fire safety plan check; state fire marshal plan review certificate; and certificate of inspection for fired and unfired pressure vessel). See also ADNR, **PERMITTING** LARGE MINE **PROJECTS** ΙN ALASKA (2015),available http://dnr.alaska.gov/mlw/mining/largemine/Imptprocess20feb2015rev km.pdf; PEBBLE MINE PROJECT POTENTIAL PERMITS, AUTHORIZATIONS AND PROCESSES - GROUPED BY FUNCTION -DRAFT, BRISTOL BAY NATIVE CORPORATION.

<sup>&</sup>lt;sup>52</sup> See ADNR, PowerPoint Presentation, An Overview – The Process for Large Mine Permitting in Alaska (2014), at 4, available at <a href="http://dnr.alaska.gov/mlw/mining/largemine/lmptprocess\_dnrwebsite\_color6perpage.pdf">http://dnr.alaska.gov/mlw/mining/largemine/lmptprocess\_dnrwebsite\_color6perpage.pdf</a>.

<sup>&</sup>lt;sup>53</sup> Large Mine Permitting, ADNR, <a href="http://dnr.alaska.gov/mlw/mining/largemine/">http://dnr.alaska.gov/mlw/mining/largemine/</a> (last visited Sept. 18, 2015).

<sup>&</sup>lt;sup>54</sup> ALASKA STAT. ANN. § 27.19.02 (West 2015); ADNR, PowerPoint Presentation, An Overview – The Process for Large Mine Permitting in Alaska (2014), *available at* <a href="http://dnr.alaska.gov/mlw/mining/largemine/lmptprocess">http://dnr.alaska.gov/mlw/mining/largemine/lmptprocess</a> dnrwebsite color6perpage.pdf. The State also performs environmental audits every five years as part of its permit renewal process. These audits are performed by a third party and examine all aspects of the mine's environmental systems, as well as the performance of the agency charged with oversight, and require updating of closure plans and associated bonds. *See* ALASKA STAT. §27.21.080, *et seq*.

<sup>&</sup>lt;sup>55</sup> ADNR, PowerPoint Presentation, An Overview – The Process for Large Mine Permitting in Alaska (2014), at 4, *available at* <a href="http://dnr.alaska.gov/mlw/mining/largemine/lmptprocess\_dnrwebsite\_color6perpage.pdf">http://dnr.alaska.gov/mlw/mining/largemine/lmptprocess\_dnrwebsite\_color6perpage.pdf</a>.

<sup>&</sup>lt;sup>56</sup> Alaska Stat. Ann. § 46.17 (West 2015).

<sup>&</sup>lt;sup>57</sup> Alaska Dam Safety Program, ADNR, <a href="http://dnr.alaska.gov/mlw/water/dams/">http://dnr.alaska.gov/mlw/water/dams/</a> (last visited Sept. 18, 2015).

<sup>&</sup>lt;sup>58</sup> *Id*.

<sup>&</sup>lt;sup>59</sup> ADNR, PowerPoint Presentation, Alaska Dam Safety Program (2011), at 14, *available at* <a href="http://www.hydro.org/wp-content/uploads/2011/01/AK-Dept-of-Natural-Resources-AK-Dam-Safety-Program.pdf">http://www.hydro.org/wp-content/uploads/2011/01/AK-Dept-of-Natural-Resources-AK-Dam-Safety-Program.pdf</a>.

<sup>&</sup>lt;sup>60</sup> EPA, PowerPoint Presentation, Proposed Pebble Mine Project Alaska: Briefing for Administrator Lisa Jackson (Jan. 13, 2010), at 36.

<sup>&</sup>lt;sup>61</sup> BBWA, note 50 above, at 3-1.

<sup>&</sup>lt;sup>62</sup> *Id.* The Alaska Department of Fish and Game defines the Bristol Bay management area to include nine major river systems, namely those identified by the EPA, plus the Alagnak, Wood, and Igushik. *See* Alaska Dep't of Fish and Game, Fishery Management Report No. 14-23: 2013 Bristol Bay Area Management Report 1 (2013).

The Bristol Bay Region, UNIVERSITY OF ALASKA FAIRBANKS, <a href="https://www.uaf.edu/bbc/campus/region/">https://www.uaf.edu/bbc/campus/region/</a> (last visited Sept. 3, 2015).

<sup>&</sup>lt;sup>64</sup> See Proposed Determination, note 9 above, at 3-2.

<sup>&</sup>lt;sup>65</sup> BBWA, note 50 above, at 3-33, 3-34.

<sup>&</sup>lt;sup>66</sup> *Id.* at 2-12, fig. 2-4.

<sup>&</sup>lt;sup>67</sup> See Geoffrey Y. Parker et al., Pebble Mine: Fish, Minerals, and Testing the Limits Of Alaska's "Large Mine Permitting Process", 25 Alaska L. Rev. 1, 7 (2008).

<sup>&</sup>lt;sup>68</sup> See Proposed Determination, note 9 above, at 3-12, 3-20.

<sup>&</sup>lt;sup>69</sup> See Fish FAQ, NOAA'S NORTHEAST FISHERIES SCIENCE CENTER, <a href="http://www.nefsc.noaa.gov/faq/fishfaq1a.html">http://www.nefsc.noaa.gov/faq/fishfaq1a.html</a> (last visited Sept. 3, 2015).

<sup>&</sup>lt;sup>70</sup> See Proposed Determination, note 9 above, at 3-19 (2014). Any development of a Pebble mine would most directly impact the Nushagak and Kvichak River watersheds.

<sup>&</sup>lt;sup>71</sup> *Id.* at 2-1, 3-11.

<sup>&</sup>lt;sup>72</sup> See Hassan Ghaffari et al., Preliminary Assessment of the Pebble Project, Southwest Alaska 380 (2011) [hereinafter Wardrop Report]; see Proposed Determination, note 9 above, at 6-1.

<sup>&</sup>lt;sup>73</sup> See Proposed Determination, note 9 above, at 6-1.

<sup>&</sup>lt;sup>74</sup> WARDROP REPORT, note 72 above, at 8, 380.

<sup>&</sup>lt;sup>75</sup> *Id.* at 380.

<sup>&</sup>lt;sup>76</sup> *Id*.

<sup>&</sup>lt;sup>77</sup> *About the Bay,* TROUT UNLIMITED, <a href="http://www.savebristolbay.org/about-the-bay">http://www.savebristolbay.org/about-the-bay</a> (last visited Sept. 18, 2015).

<sup>&</sup>lt;sup>78</sup> Mineral Resources On-Line Spatial Data (ARDF#IL007), U.S. GEOLOGICAL SURVEY (Apr. 1, 2012), <a href="http://mrdata.usgs.gov/ardf/show-ardf.php?ardf">http://mrdata.usgs.gov/ardf/show-ardf.php?ardf</a> num=IL007. "Low-grade" deposits are defined by their "relatively small amounts of metals relative to the amount of ore[.]" BBWA, note 50 above, at ES-9. For low-grade deposits, "mining will be economic only if conducted over large areas and will necessarily produce large amounts of waste material." *Id.* at ES-9, 1-2.

 $<sup>^{79}</sup>$  See ADNR, Bristol Bay Area Plan for State Lands 3-93 (2005).

<sup>&</sup>lt;sup>80</sup> *Geology*, PEBBLE LIMITED PARTNERSHIP, <a href="http://www.pebblepartnership.com/geology.html">http://www.pebblepartnership.com/geology.html</a> (last visited Sept. 13, 2015).

<sup>&</sup>lt;sup>81</sup> WARDROP REPORT, note 72 above, at 2.

<sup>&</sup>lt;sup>82</sup> See Geoffrey Y. Parker et al., Pebble Mine: Fish, Minerals, and Testing the Limits Of Alaska's "Large Mine Permitting Process", 25 Alaska L. Rev. 1, 9 (2008); Location, PEBBLE LIMITED PARTNERSHIP, <a href="http://www.pebblepartnership.com/location.html">http://www.pebblepartnership.com/location.html</a> (last visited Sept. 16, 2015).

<sup>&</sup>lt;sup>83</sup> Mineral Resources On-Line Spatial Data (ARDF#IL007), U.S. GEOLOGICAL SURVEY (Apr. 1, 2012), <a href="http://mrdata.usgs.gov/ardf/show-ardf.php?ardf">http://mrdata.usgs.gov/ardf/show-ardf.php?ardf</a> num=IL007; WARDROP REPORT, note 72 above, at 6; Geoffrey Y. Parker et al., <a href="https://example.com/Pebble Mine: Fish, Minerals">Pebble Mine: Fish, Minerals</a>, and Testing the Limits Of Alaska's "Large Mine Permitting Process", 25 Alaska L. Rev. 1, 10 (2008).

<sup>&</sup>lt;sup>85</sup> Geoffrey Y. Parker et al., *Pebble Mine: Fish, Minerals, and Testing the Limits Of Alaska's "Large Mine Permitting Process"*, 25 Alaska L. Rev. 1, 11 (2008).

<sup>&</sup>lt;sup>86</sup> Engaging Bristol Bay's Tribal Communities, Environmental Protection Agency (June 8, 2015), http://www2.epa.gov/bristolbay/engaging-bristol-bays-tribal-communities.

WARDROP REPORT, note 72 above, at 419; PROPOSED DETERMINATION, note 9 above, at 6-9; see Education & Programs, ALASKA NATIVE HERITAGE CENTER, <a href="http://www.alaskanative.net/en/main-nav/education-and-programs/cultures-of-alaska/unangax-and-alutiiq/">http://www.alaskanative.net/en/main-nav/education-and-programs/cultures-of-alaska/unangax-and-alutiiq/</a> (last visited Oct. 1, 2015).

 $<sup>^{88}</sup>$  See Wardrop Report, note 72 above, at 413; see Proposed Determination, note 9 above, at 2-9.

<sup>&</sup>lt;sup>89</sup> See Proposed Determination, note 9 above.

<sup>&</sup>lt;sup>90</sup> See WARDROP REPORT, note 72 above, at 419.

<sup>&</sup>lt;sup>91</sup> *Id*.

<sup>&</sup>lt;sup>92</sup> Bristol Bay Regional Map, BRISTOL BAY NATIVE CORPORATION, <a href="http://www.bbnc.net/index.php/our-land/maps">http://www.bbnc.net/index.php/our-land/maps</a> (last visited Sept. 13, 2015).

<sup>93</sup> BBWA, note 50 above, app. E at 22.

<sup>&</sup>lt;sup>94</sup> IHS, THE ECONOMIC AND EMPLOYMENT CONTRIBUTIONS OF A CONCEPTUAL PEBBLE MINE TO THE ALASKA AND UNITED STATES ECONOMIES 20 (2013) [hereinafter IHS].

<sup>&</sup>lt;sup>95</sup> BBWA, note 50 above, app. E, at 42-43.

<sup>&</sup>lt;sup>96</sup> *Id.* at app. E, p. 47.

<sup>&</sup>lt;sup>97</sup> *Id.* at app. E, p. 203.

<sup>&</sup>lt;sup>98</sup> *Id.* at app. J, p. 7; *see id.* at ES-9, 1-1.

<sup>&</sup>lt;sup>99</sup> *Id.* at ES-9; *see id.* at 5-38.

<sup>&</sup>lt;sup>100</sup> Bristol Bay Native Association, Bristol Bay Comprehensive Economic Development Study: 2015 Update 24 (2015) [hereinafter BBCED] (prepared for the United States Department of Commerce, Economic Development Administration).

<sup>101</sup> *Id*.

<sup>102</sup> *Id*.

 $^{103}$  Wardrop Report, note 72 above, at 419; see BBWA, note 50 above, app. J, at 7; see id. at ES-9, 5-26.

<sup>104</sup> BBWA, note 50 above, at. app. E, p. 15.

<sup>105</sup> *Id*.

<sup>106</sup> *Id*.

<sup>107</sup> *Id.* at 16.

<sup>108</sup> *Id.* at 5-26 and tbl.5-4.

<sup>109</sup> *Id.* at app. E, p. 51.

<sup>110</sup> BBCED, note 100 above, at 64.

<sup>111</sup> *Id.* at 64-65 ("There are approximately 1,847 commercial drift Bristol Bay commercial [sic] permits. 56% of the total commercial salmon drift permits are from out of state, 26% are from various Alaskan communities and only 18% are from various Bristol Bay communities."); *see also* BBWA, note 50 above, at 5-26 and app. E at 130 tbl.37 (Population, Permit Holders, and Salmon Earnings, by Community: 2000 & 2010).

<sup>112</sup> ADNR, BRISTOL BAY AREA PLAN FOR STATE LANDS 2-46 (2005). These parks and sites include: Wood-Tikchik State Park; Lake Clark National Park; Aniakchak National Monument and Preserve; Katmai National Park and Preserve; Alaska Peninsula; Alaska Maritime, Izembek, Togiak, and Becharof National Wildlife Refuges; and National Wild and Scenic Rivers: Alagnak, Chilikadrotna, Mulchatna, and Tlikakila Rivers. *Id*.

<sup>113</sup> BBWA, note 50 above, at app. E, p. 17; see Proposed Determination, note 9 above, at 6-2.

<sup>114</sup> BBWA, note 50 above, at app. E, pp. 48-50.

<sup>115</sup> *Id.* at 184.

<sup>116</sup> See Proposed Determination, note 9 above, at 6-2.

<sup>117</sup> BBWA, note 50 above, app. E, at 17.

<sup>118</sup> PROPOSED DETERMINATION, note 9 above, at 6-3.

<sup>119</sup> IHS, note 94 above, at 18.

<sup>120</sup> *Id.* (quoting Alaska Department of Labor and Workforce Development, Workforce Analysis for Southwest Alaska's Large Mines (Sept. 2011)).

<sup>121</sup> BBCED, note 100 above, at 1. *See also July 2015 Preliminary Unemployment Rate*, ALASKA DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT (July 2015), <a href="http://live.laborstats.alaska.gov/labforce/">http://live.laborstats.alaska.gov/labforce/</a> (Dillingham Census Area: 7.4% unemployment; Lake and Peninsula Borough: 8.5% unemployment; Bristol Bay Borough: 2.1% unemployment).

<sup>122</sup> IHS, note 94 above, at 17.

 $^{123}$  *Id*.

<sup>124</sup> *Id*.

- <sup>131</sup> See also Brad Angasan, If Obama visits Bristol Bay, he deserves a full experience of region's economy, ALASKA DISPATCH NEWS, Aug. 9, 2015, <a href="http://www.adn.com/article/20150809/if-obama-visits-bristol-bay-he-deserves-full-experience-regions-economy#.Vcgq1yX1fwE.mailto">http://www.adn.com/article/20150809/if-obama-visits-bristol-bay-he-deserves-full-experience-regions-economy#.Vcgq1yX1fwE.mailto</a> (explaining that many commercial fishing jobs "are not 'living-wage' jobs").
- LAKE AND PENINSULA BOROUGH COMPREHENSIVE PLAN (2012), available at <a href="http://www.lakeandpen.com/vertical/sites/%7B0B64B15E-4D75-4DD6-ACBB-14563D943AB9-7D/uploads/PedroBay CommunityPlan 9-17-12.pdf">http://www.lakeandpen.com/vertical/sites/%7B0B64B15E-4D75-4DD6-ACBB-14563D943AB9-7D/uploads/PedroBay CommunityPlan 9-17-12.pdf</a>; Alex DeMarban, Dwindling Students Mean Four More Rural Alaska Schools Will Close, ALASKA DISPATCH NEWS, June 5, 2012, <a href="http://www.adn.com/article/dwindling-students-mean-four-more-rural-alaska-schools-will-close">http://www.adn.com/article/dwindling-students-mean-four-more-rural-alaska-schools-will-close</a>.

- Pebble Project, ALASKA DEPARTMENT OF NATURAL RESOURCES, <a href="http://dnr.alaska.gov/mlw/mining/largemine/pebble/">http://dnr.alaska.gov/mlw/mining/largemine/pebble/</a> (last visited Sept. 3, 2015); see also WARDROP REPORT, note 72 above, at 2.
- CROSALIE L'ECUYER, TANANA-YUKON HISTORICAL SOCIETY, CENTENNIAL OF THE SECOND ORGANIC ACT: AUGUST 24, 1912—AUGUST 24, 2012, 1-2 (2012), available at <a href="http://www.fairbanks-tyhs.org/PDFs/Centennial.Second.Organic.Act.pdf">http://www.fairbanks-tyhs.org/PDFs/Centennial.Second.Organic.Act.pdf</a>; see also Alaska Native Land Claims, ALASKOOL, <a href="http://www.alaskool.org/projects/ancsa/landclaims/LandClaims\_Unit3\_Ch10.htm">http://www.alaskool.org/projects/ancsa/landclaims/LandClaims\_Unit3\_Ch10.htm</a> (last visited Sept. 4, 2015).

- <sup>141</sup> ADNR, BRISTOL BAY AREA PLAN FOR STATE LANDS 3-92 (2005). There are three additional units within Region 6 that have been set aside for mineral exploration and mining: the Shotgun prospect, the Kemuk deposit, and the Sleitat prospect. *See id.* at 3-92 through 3-93.
- Draft Memorandum, from Geoffrey Y. Parker, Esq., on the "History of Conservation and Land Use Planning Efforts in the Kvichak and Nushagak Drainages" (2011); see also A Long History of Protecting Bristol Bay Fisheries, BALANCEFORBRISTOLBAY.ORG, <a href="http://www.balanceforbristolbay.org/TimelineForCitizens.pdf">http://www.balanceforbristolbay.org/TimelineForCitizens.pdf</a> (last visited Sept. 3, 2015).

<sup>&</sup>lt;sup>125</sup> *Id.* at 20.

<sup>&</sup>lt;sup>126</sup> Based on a visit of Secretary Cohen's team members on June 18, 2015.

<sup>&</sup>lt;sup>127</sup> *Id*.

<sup>&</sup>lt;sup>128</sup> BBCED, note 100 above, at 1.

<sup>&</sup>lt;sup>129</sup> *Id*.

<sup>&</sup>lt;sup>130</sup> IHS, note 94 above, at 18.

<sup>&</sup>lt;sup>133</sup> BBCED, note 100 above, at 21.

<sup>&</sup>lt;sup>136</sup> ADNR, FACT SHEET: LAND OWNERSHIP IN ALASKA 1 (2000).

<sup>&</sup>lt;sup>137</sup> Alaska Statehood Act, Pub. L. No. 85-508, § 6(i), 72 Stat. 339, 342 (1958).

<sup>&</sup>lt;sup>138</sup> *Id*.

<sup>&</sup>lt;sup>139</sup> See Letter from Michael C. Geraghty, Attorney General of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 29, 2014), at 7.

<sup>&</sup>lt;sup>140</sup> Letter from Michael C. Geraghty, Attorney General of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Mar. 9, 2012), at 3.

<sup>146</sup> "The revisions to this plan do not directly impact the Pebble project." ADNR, COMMON **ABOUT** BRISTOL MISCONCEPTIONS THE BAY AREA **PLAN** http://dnr.alaska.gov/mlw/planning/areaplans/bristol/amend/pdf/BBAP\_Misconceptions.pdf; see also, State Releases Draft of Amended Bristol Bay Land Use Plan, ALASKA JOURNAL OF COMMERCE, Jan. 10, 2013, available at http://www.alaskajournal.com/Alaska-Journal-of-Commerce/January-Issue-2-2013/State-releases-draft-of-amended-Bristol-Bay-land-use-plan/ ("The amended BBAP reclassifies 723,000 acres of land primarily in the upper Nushagak and Mulchatna river drainages to wildlife habitat. Plan changes turn land next to the mineral land in the Koktuli River valley, a Mulchatna tributary, to wildlife habitat. The changes do not alter any of the mineral land designations made in 2005 surrounding the Pebble area."); DNR Issues Latest Revisions to Bristol Bay Land Use Plan, ALASKA JOURNAL OF COMMERCE, Sept. 12, 2013, available http://www.alaskajournal.com/Alaska-Journal-of-Commerce/January-Issue-2-2013/State-releases-draft-of-amended-Bristol-Bay-land-use-plan/)http://alaskajournal-staging. gtxcel.net/Alaska-Journal-of-Commerce/September-Issue-3-2013/DNR-issues-latest-revisionsto-Bristol-Bay-land-use-plan/ ("Overall, ADNR increased the wildlife habitat-use area by 89 percent around Bristol Bay. Lands determined to be best suited for mineral development shrunk from 328,000 acres to 203,000. The roughly 70,000 acres on which Pebble Partnership has mineral claims north of Iliamna Lake went largely unchanged.").

In 1971, the Alaska Native Claims Settlement Act divided the State into 12 regions "with each region composed as far as practicable of Natives having a common heritage and sharing common interests." Alaska Native Claims Settlement Act § 7(a), 43 U.S.C.A. § 1606 (West 2015). Each of these regions was then incorporated to form a "native corporation" that operated on a for-profit basis. Each of the 12 Alaska Native Corporations (in addition to each Native village) were also permitted to "select" lands within their regions. *See* Alaska Native Claims Settlement Act § 12, 43 U.S.C.A. § 1611. In total, the Act granted 40 million acres to the State's Native populations. *Id.* The Act also provided for an "Alaska Native Fund" that was partially funded by \$500 million in mineral revenues received by the State. Alaska Native Claims Settlement Act §§ 6(a) and 9, 43 U.S.C.A §§ 1605 and 1608.

The 24 Alaska Native Village Corporations in the Bristol Bay region are: Alaska Peninsula Corporation, Aleknagik Natives Ltd., Bay View, Inc., Becharof Corporation, Chignik

<sup>&</sup>lt;sup>143</sup> PROPOSED DETERMINATION, note 9 above, at 2-2, box 2-1; *see also* Geoffrey Y. Parker, Esq., Draft Memorandum on the "History of Conservation and Land Use Planning Efforts in the Kvichak and Nushagak Drainages" (2011). In the Proposed Determination, EPA explained that "[a]lthough [a 1984 mineral closure order that found that "mineral development is incompatible with fisheries"] was retained in the 2005 [plan], the finding that mineral development is incompatible with salmon propagation and production was not retained." PROPOSED DETERMINATION, note 9 above, at 2-2, box 2-1.

<sup>&</sup>lt;sup>144</sup> *Nondalton Tribal Council et al. v. State of Alaska*, Case No. 3DI-09-46 CI (Alaska Super. Ct. June 9, 2009); PROPOSED DETERMINATION, note 9 above, at 2-2, box 2-1. The six Bristol Bay tribes were the Nondalton Tribal Council, Koliganek Village Council, New Stuyahok Traditional Council, Ekwok Village Council, Curyung Tribal Council, and Levelock Village Council.

<sup>&</sup>lt;sup>145</sup> ADNR, BRISTOL BAY AREA PLAN FOR STATE LANDS, 1-5 and "Adoption of 2013 Plan Amendment" (2013).

<sup>&</sup>lt;sup>147</sup> WARDROP REPORT, note 72 above, at 62, 415-416.

Lagoon Native, Chignik River Ltd., Choggiung Ltd., Ekwok Natives Ltd., Far West Inc., Igiugig Native Ltd., Iliamna Native Ltd., Kijik Corporation, Koliganek Natives Ltd., Levelock Natives Ltd., Manokotak Natives Ltd., Oceanside Corporation, Paug-Vik Ltd., Pedro Bay Village, Pilot Point Native Corporation, Saguyak Inc., Stuyahok Natives Ltd., Tanalian Inc., Togiak Natives Ltd., and Twin Hills Native Corporation. WARDROP REPORT, note 72 above, at 415-16.

Bristol Bay Regional Map, BRISTOL BAY NATIVE CORPORATION, <a href="http://www.bbnc.net/index.php/our-land/maps">http://www.bbnc.net/index.php/our-land/maps</a> (last visited Sept. 15, 2015). Under the Alaska Native Claims Settlement Act, Alaska Natives own the Village and Regional Corporations via privately owned shares of corporation stock. See Alaska Native Claims Settlement Act §§ 5, 7, and 8, 43 U.S.C.A §§ 1604, 1606, and 1607.

The Bureau of Land Management of the Department of the Interior—identified on the featured map as "BLM"—is responsible for overseeing the federally managed public lands in the Bristol Bay region. In 2008, the Bureau of Land Management opened nearly 1.1 million acres of public lands for mineral exploration by removing them from the list of lands withdrawn by the Secretary of the Interior under Alaska Native Claims Settlement Act. 73 Fed. Reg. 67,544 (Nov. 14, 2008). These lands are within the watershed which was the subject of the BBWA.

<sup>&</sup>lt;sup>148</sup> WARDROP REPORT, note 72 above, at 63.

<sup>&</sup>lt;sup>149</sup> *Id.* at 62. In addition, the Alaska Peninsula Corporation holds surface rights around Newhalen, a village near the Pebble Deposit Area. *Newhalen*, ALASKA PENINSULA CORPORATION, <a href="http://www.alaskapeninsulacorp.com/our-land/newhalen">http://www.alaskapeninsulacorp.com/our-land/newhalen</a> (last visited Sept. 13, 2015).

<sup>&</sup>lt;sup>150</sup> WARDROP REPORT, note 72 above, at 415.

<sup>&</sup>lt;sup>151</sup> *Id*.

<sup>&</sup>lt;sup>153</sup> See Proposed Determination, note 9 above, at 2-1.

<sup>&</sup>lt;sup>154</sup> See WARDROP REPORT, note 72 above, at 2-3.

Wendy Stueck, *Rio Tinto to Acquire 9.9% of Northern Dynasty*, THE GLOBE AND MAIL, July 7, 2006, <a href="http://www.northerndynastyminerals.com/i/pdf/NDM\_GlobeandMail\_7Jul06.pdf">http://www.northerndynastyminerals.com/i/pdf/NDM\_GlobeandMail\_7Jul06.pdf</a>.

<sup>&</sup>lt;sup>156</sup> Rio Tinto Increases Its Share in Pebble Project Company, ASSOCIATED PRESS, Jan. 31, 2007, <a href="http://juneauempire.com/stories/013107/sta\_20070131014.shtml#.VZHFkvlVjQA">http://juneauempire.com/stories/013107/sta\_20070131014.shtml#.VZHFkvlVjQA</a>.

<sup>&</sup>lt;sup>157</sup> See WARDROP REPORT, note 72 above, at 3.

<sup>&</sup>lt;sup>158</sup> *Id*.

<sup>&</sup>lt;sup>159</sup> *Id*.

<sup>&</sup>lt;sup>160</sup> Press Release, Anglo American, Anglo American Statement Re: Pebble Project (Sept. 16, 2013), *available at* <a href="http://www.angloamerican.com/media/press-releases/2013/2013-09-16">http://www.angloamerican.com/media/press-releases/2013/2013-09-16</a>.

Press Release, Rio Tinto, Rio Tinto Gifts Stake in Northern Dynasty Minerals to Alaskan Charities (Apr. 7, 2014), *available at* <a href="http://www.riotinto.com/media/media-releases-237\_10183">http://www.riotinto.com/media/media-releases-237\_10183</a>. The shares were divided equally between the Alaska Community Foundation and the Bristol Bay Native Corporation Education Foundation. *Id.* 

<sup>&</sup>lt;sup>162</sup> See Proposed Determination, note 9 above, at 2-14.

- <sup>165</sup> See Study Authors, PEBBLE LIMITED PARTNERSHIP, <a href="http://pebbleresearch.com/authors/">http://pebbleresearch.com/authors/</a> (last visited Sept. 3, 2015). The EBD study disciplines include: climate and meteorology; geology and mineralization; physiography; soils; geotechnical studies, seismicity, and volcanism; surface water hydrology; groundwater hydrology; water quality; trace elements and other naturally occurring constituents; geochemical characterization; noise; vegetation; wetlands; fish and aquatic invertebrates; wildlife and habitat; threatened and endangered species; land and water use; regional transportation; power; socioeconomics; cultural resources; subsistence; visual resources; recreation; oceanography and marine water quality; marine nearshore habitat; marine benthos; nearshore (marine) fish and invertebrates; and marine wildlife. Environmental Baseline Document, note 163 above, at 1-4 through 1-7.
- <sup>166</sup> See Proposed Determination, note 9 above, at 2-4; Environmental Baseline Document, note 163 above.
- <sup>167</sup> See Proposed Determination, note 9 above, at 2-4; Declaration of Richard B. Parkin at ¶ 30 Pebble Ltd. Partnership v. U.S. Envtl. Protection Agency, No. 3:14-cv-00171-HRH (D. Alaska Nov. 7, 2014) [hereinafter Parkin Declaration]; see also Environmental Baseline Document, note 163 above.
- <sup>168</sup> See Proposed Determination, note 9 above; Parkin Declaration, note 167 above, at ¶ 30; Environmental Baseline Document, note 163 above, at 1 (Table of Contents).
- <sup>169</sup> Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Oct. 21, 2011).
- <sup>170</sup> See, e.g., Frontline: Alaska Gold (PBS television broadcast July 24, 2012), transcript available at, <a href="http://www.pbs.org/wgbh/pages/frontline/environment/alaska-gold/transcript-26/">http://www.pbs.org/wgbh/pages/frontline/environment/alaska-gold/transcript-26/</a> [hereinafter Frontline: Alaska Gold]; see also Letter from Dennis McLerran, Regional Administrator, EPA Region 10 to John Shively, CEO, Pebble Partnership (Nov. 22, 2011), at 1 ("To complete that review [of the data in the environmental baseline document], we will need complete documentation (metadata) concerning sampling and analytical methods, any statistical approaches used to summarize the data, and a description of any quality assurance and quality control results.").
- <sup>171</sup> See, e.g., Frontline: Alaska Gold, note 170 above; Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Oct. 21, 2011), at 2.
- <sup>172</sup> See Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Oct. 21, 2011).

<sup>&</sup>lt;sup>163</sup> See Pebble Limited Partnership, Pebble Project Environmental Baseline Document 2004-2008 1-1 through 1-2 (2011), available at <a href="http://pebbleresearch.com/download/">http://pebbleresearch.com/download/</a> [hereinafter Environmental Baseline Document]; BBWA, note 50 above, at ES-10, 2-3; Wardrop Report, note 72 above, at 387; see also Proposed Determination, note 9 above, at 2-4.

<sup>&</sup>lt;sup>164</sup> See Environmental Baseline Document, note 163 above, at 1-1; , FAQ, Pebble Limited Partnership, <a href="http://pebbleresearch.com/faq/#q3">http://pebbleresearch.com/faq/#q3</a> (last visited Sept. 4, 2015); Wardrop Report, note 72 above, at 388.

<sup>&</sup>lt;sup>173</sup> See, e.g., Frontline: Alaska Gold, note 170 above.

<sup>174</sup> See, e.g., Northern Dynasty Mines, Inc., Pebble Gold Copper Project Agency Baseline Meetings Draft Minutes (2004); see also, e.g., Letter from Geoffrey Y. Parker, Esq., to Marty Rutherford, Dick Mylius, and Melinda O'Donnell, ADNR (Jan. 22, 2007); NOAA FISHERIES, Pebble Mine: NOAA/NMFS Briefing Document (2012).

<sup>175</sup> See Northern Dynasty Mines, Inc., Pebble Gold Copper Project Agency Baseline Meetings Draft Minutes (2004); Northern Dynasty Mines, Inc., Baseline Environmental Team Agency Meeting Agenda (2005); Bud Rice, National Parks Service, Pebble Mine Agency Meeting Notes (2005); Northern Dynasty Mines, Inc., Baseline Environmental Team Agency Meetings (2006); The Pebble Limited Partnership, Pebble Project Environmental Baseline Studies Agency Meetings (2007) (updated tentative agenda); The Pebble Limited Partnership, Pebble Project Environmental Baseline Studies Agency Meetings (2008) (preliminary agenda); The Pebble Limited Partnership, Pebble Project Environmental Baseline Studies Agency Meetings (2011) (preliminary agenda); The Pebble Limited Partnership, Pebble Project Environmental Baseline Studies Agency Meetings (2012) (agenda).

<sup>177</sup> See Memorandum of Understanding Between the Alaska Department of Natural Resources and Northern Dynasty Mines, Inc. for Services Associated with the Review and Authorization Process for the Pebble Gold-Copper Project, 1 (Apr. 30, 2004). Tasks specified as reimbursable under the agreement ranged from reviewing and providing guidance with respect to the Pebble Partnership's baseline data collection program to providing guidance with respect to the submission of state agency permit applications to bio-monitoring work required for federal authorizations. *Id.* at Attachment 2.

<sup>179</sup> See generally Memorandum of Understanding Between the Alaska Department of Natural Resources and Northern Dynasty Mines, Inc. for Services Associated with the Review and Authorization Process for the Pebble Gold-Copper Project (Apr. 30, 2004); Funding Agreement (Revision 3) Extension of Existing Hydrologic Data Collection Project at the Pebble Mine Site USGS Fiscal Years 2011 through 2015, Inclusive 1 (Nov. 2013).

John Pavitt, EPA, Meeting Notes from Agency Discussion of the Pebble Limited Partnership Technical Working Groups (TWGs) 1 (Mar. 30, 2009); Charlotte MacCay, Pebble Partnership, Minutes of Planning Meeting for Formation of Pebble Project Technical Working Groups (June 28, 2006). The state had prior experience with similar groups instituted in connection with large scale development projects. *Id.* The Pebble Partnership personnel and state agency representatives held planning sessions to identify the initial subject-matter-specific Working Groups, formalize their purpose and objectives, establish a steering committee that would provide oversight of the Working Groups, and create operating protocols and guidelines. *Id.* 

<sup>&</sup>lt;sup>176</sup> See note 175 above.

 $<sup>^{178}</sup>$  *Id.* at 4; see also Alaska Stat. § 27.05.010(b) (2015).

<sup>&</sup>lt;sup>181</sup> John Pavitt, EPA, Meeting Notes from Agency Discussion of the Pebble Limited Partnership Technical Working Groups (TWGs) 2 (Mar. 30, 2009).

 $<sup>^{182}</sup>$  See id.; Parkin Declaration, note 167 above, at  $\P$  5.

<sup>&</sup>lt;sup>183</sup> See Final Minutes of the Pebble Project Technical Working Groups – Steering Committee Meeting (July 19, 2007), available at <a href="http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/twg2007719.pdf">http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/twg2007719.pdf</a> (The lead agencies represented on the steering committee were the ADNR, the

Alaska Department of Fish and Game, the Corps, the National Park Service, FWS, EPA, and the National Marine Fisheries Service. The steering committee confirmed that the Working Groups would "be advisory groups that will provide coordination and suggestions related to baseline studies for the Pebble Project" but would "not function as a consensus or decision-making authority."); see NOAA FISHERIES, PEBBLE MINE: NOAA/NMFS BRIEFING DOCUMENT (2012), at 6.

<sup>184</sup> See Final Minutes of the Pebble Project Technical Working Groups – Steering Committee Meeting (July 19, 2007), at 4, available at <a href="http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/twg2007719.pdf">http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/twg2007719.pdf</a>.

<sup>186</sup> John Pavitt's (EPA) Meeting Notes from Agency Discussion of the Pebble Limited Partnership Technical Working Groups (TWGs) 1 (Mar. 30, 2009); Parkin Declaration, note 167 above, at ¶ 16; Email from Phil Brna, Fish and Wildlife Biologist, FWS, to Ted Otis, Alaska Department of Fish and Game (Dec. 23, 2008); *see also* Letter from Ken Taylor, Vice President-Environment, Pebble Partnership to Tom Crafford, Large Mine Permitting Manager, ADNR (Feb. 15, 2009); *see, e.g., Frontline: Alaska Gold*, note 170 above.

<sup>187</sup> See John Pavitt, EPA, Meeting Notes from Agency Discussion of the Pebble Limited Partnership Technical Working Groups (TWGs) 1 (Mar. 30, 2009); Parkin Declaration, note 167 above at ¶ 16; NOAA FISHERIES, PEBBLE MINE: NOAA/NMFS BRIEFING DOCUMENT 6 (2012); Memorandum from Frances Mann, Branch Chief, Conservation Planning Assistance, for the Assistant Regional Director regarding the Technical Working Group Process for the Pebble Mine Project (Apr. 8, 2009); Meeting Minutes for Technical Working Group – Freshwater Fish 5-6 (June 12-13, 2008), available at <a href="http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/fish20080612.pdf">http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/fish20080612.pdf</a>.

<sup>188</sup> See Memorandum from Frances Mann, Branch Chief, Conservation Planning Assistance, to Ann Rappoport, Assistant Regional Director, FWS Anchorage Field Office (Apr. 8, 2009) (regarding the Working Group Process for the Pebble Mine Project); NOAA FISHERIES, PEBBLE MINE: NOAA/NMFS BRIEFING DOCUMENT 5-6 (2012); Charlotte MacCay, Pebble Partnership, Meeting Minutes for Technical Working Group – Freshwater Fish (June 12-13, 2008), at 5-6, available at http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/fish20080612.pdf.

It appears that some of the frustration the agencies and the Partnership experienced over the Partnership's baseline study program related to their different views about the purpose of performing the studies. *See*, *e.g.*, Letter from Ken Taylor, Vice President-Environment, Pebble Partnership to Tom Crafford, Large Mine Permitting Manager, ADNR (Feb. 15, 2009), at 3-4, 7, 14-15, 19. The Partnership performed studies to enable it to characterize the physical and biological environment within and surrounding the Pebble Deposit Area, whereas the agencies wanted the Partnership to perform studies that would enable the agencies to understand the effects of mine operations on the environment. *See generally id.*; NOAA FISHERIES, PEBBLE MINE: NOAA/NMFS BRIEFING DOCUMENT 6-7 (2012). The Pebble Partnership included in some Working Group meeting minutes a disclosure about its study program:

[The Pebble Partnership] would like to clarify the types of data it is collecting to better facilitate future discussions. The data collected to date has been collected for site characterization. It is meant to

<sup>&</sup>lt;sup>185</sup> *Id*.

be used to write the Affected Environment Section of the NEPA (EIS) document. Because NEPA calls this 'baseline information' [the Pebble Partnership] has also been referring to this data as baseline data.

Charlotte MacCay, Pebble Partnership, Meeting Minutes for Combined Water Quality and Hydrology TWGs (Nov. 18, 2008), *available at* <a href="http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/wqhydro20081118.pdf">http://dnr.alaska.gov/mlw/mining/largemine/pebble/twg/wqhydro20081118.pdf</a>.; *see also* Charlotte MacCay, Pebble Partnership, Meeting Minutes for Fish TWG (Nov. 19, 2008) at 2-3 (chronicling disagreement over nomenclature and study and data collection purposes).

<sup>189</sup> Email from Charlotte McKay, Manager of Permitting, Pebble Partnership to Working Group members (Jan. 12, 2010).

<sup>190</sup> *Id.* Upon suspension of the Working Groups, Phil Brna of the FWS observed that "[a]gencies have previously informed [the Pebble Partnership] that baseline reports are likely to be inadequate to begin the permitting process because [the Pebble Partnership] did not develop study objectives to guide work in a way that will meet agency information needs." Email from Phil Brna, Fish and Wildlife Biologist, FWS, to Derek R. Hildreth, FWS (Jan. 22, 2010). In response, a colleague asked, "does this mean when it comes time for permitting [the Pebble Partnership] will lose out, or will the permitting process go through 'business as usual'?" *Id.* Mr. Brna answered:

It means there will come upon the land, and upon all who dwell within the land, a time when gnashing of teeth and clacking of jawbones and whining was heard from those so called radical environmentalists who would oppose jobs and economic development at the expense of environmental sustainability. Lo and behold the radical environmentalists would talk about how requests for good scientific information were made when the land was being formed and how those requests were ignored by those who would destroy the land. Those who would destroy the land would counter that those radical environmentalists would destroy all that humans have worked for and that this is wrong and an abomination upon the Almighty Dollar, and that those radicals, and their demon spawn, should be wiped out from upon the face of the earth or at least from Alaska and returned to places from whence they came, like California. Those who would destroy the land would say unto all who would listen that they could not accomplish good science as much as they tried because the Almighty Dollar had declined in value and that it was too expensive and difficult, but they would mutter under their breathes [sic] to all who would listen and who would side with them, that this so called good science was just a way of stopping their dreams for more Almighty Dollars and that science would be used against them and their dream of massive pits upon the land. They would say to all that we are to be trusted, and that this will be the biggest and best mine that has ever been conceived and that we will do no harm but some would observe that they had crossed their fingers

and they would wonder what this meant. And lo and behold several figures would emerge from the fog of the east called Juneau and Washington D.C. and they would say, we are not God, but we are like God and we have decreed that we shall make a decision about what shall be done and that we are willing to face the firestorm which shall result from our decision. We shall wet our pointer fingers within our mouths and we shall stick those fingers up into the wind of political direction and we shall attempt to determine which way the political wind is blowing. And they did. But none of use [sic] who dwell in this time can discern what the decision was because we cannot look into the future as much as we might try. *Id*.

<sup>191</sup> Parkin Declaration, note 167 above, at ¶ 2. Although EPA made a number of trips to the Bristol Bay region to meet with Alaska Natives throughout the BBWA process, the Alaska Native communities closest to the Pebble deposit repeatedly voiced frustration and concern over what they perceived to be lack of engagement by EPA and a refusal by the Agency to hear their concerns. See Ron Arnold, Alaska Natives Ask EPA to Stop Threatening Their Economy, WASHINGTON EXAMINER, Feb. 9, 2013, available at http://www.washingtonexaminer.com/ alaska-natives-ask-epa-to-stop-threatening-their-economy/article/253521; see also Letter from Iliamna Development Corp. to Lisa Jackson, Administrator, EPA (July 26, 2010) (citing planned meeting on July 28, 2010, between the EPA, including Administrator Jackson, and certain Native groups in Dillingham (120 miles from the Pebble project); however, despite requests, she was unable to meet with the Alaska Natives near Iliamna (15 miles from the Pebble Deposit Area)). The Iliamna Development Corporation made repeated requests to meet with Administrator Jackson. Id. Although these requests were denied, other members of EPA, including the subsequent EPA Administrator Gina McCarthy, Deputy Administrator Perciasepe, and Region 10 Administrator Dennis McLerran, did meet with these Alaska Native groups. Press Release, EPA, EPA Chief Gina McCarthy will Visit Alaska to Highlight Climate Action Plan and Tour Bristol Bay (Aug. 22, 2013), available at http://yosemite.epa.gov/opa/admpress.nsf/ d0cf6618525a9efb85257359003fb69d/94a5cc45f52cac5d85257bcf007c0ef5!OpenDocument; Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Abe Williams, Nuna Resources (Mar. 28, 2012); BBWA, note 50 above, at 1-5, box 1-1; Email from Bob Sussman, EPA, to Wayne Nastri, former EPA Regional Administrator for Region 9 (Sept. 8, 2010). The Iliamna Development Corporation has performed work for the Pebble Partnership. *Projects*, ILIAMNA DEVELOPMENT CORPORATION, http://iliamnacorp.com/page\_project (last visited Sept. 14, 2015).

<sup>&</sup>lt;sup>192</sup> Transcript of May 28, 2015 Oral Argument on Motion to Dismiss at 8, *Pebble Ltd. Partnership v. Envtl. Protection Agency*, Case No. 3:14-cv-171-HRH (D. Alaska Nov. 19, 2014); Parkin Declaration, note 167 above, at ¶¶ 13-16.

<sup>&</sup>lt;sup>193</sup> In 2007, the Partnership retained The Keystone Center to conduct a stakeholder assessment and dialogue feasibility study about a potential Pebble mine based upon a long-term, structured dialogue with concerned parties. *See* THE KEYSTONE CENTER, DRAFT REPORT: STAKEHOLDER ASSESSMENT AND DIALOGUE FEASIBILITY STUDY FOR THE PROPOSED PEBBLE PROJECT SOUTHWEST ALASKA, Executive Summary 1 (2008). "The Keystone Center is a non-profit organization founded in 1975 to ensure that present and future generations approach

environmental and scientific dilemmas and disagreements creatively and proactively." *Id.* The Pebble Partnership stated that The Keystone Center's work would advance its desire to develop a Pebble mine "in a participative manner that enables all Alaskans and other relevant stakeholders to contribute to the debates around the project." *Id.* As part of its work, The Keystone Center identified a range of environmental and socio-economic issues of concern and recommended a three-phased approach to address them through: (1) the use of independent science panels comprised of experts from a variety of relevant disciplines who would evaluate the credibility of the Pebble Partnership's baseline environmental data; (2) a joint fact-finding effort to address questions arising from scientific review of the baseline study program; and (3) a collaborative project planning initiative whereby the Pebble Partnership and stakeholders may contribute to the "development of an environmentally and socially preferred mining scenario[.]" *Id.* at 3-4.

Between December 2010 and May 2013, The Keystone Center hosted a series of science panels. *See* Press Release, The Keystone Center, Science Panels to Help Citizens Evaluate Pebble Baseline Studies (July 7, 2010), *available at* <a href="http://corporate.pebblepartnership.com/news-article.php?s=science-panel-to-help-citizen-evaluation-of-pebble">http://corporate.pebblepartnership.com/news-article.php?s=science-panel-to-help-citizen-evaluation-of-pebble</a>. The science panels focused on: geology and hydrogeology; water quality; fish, wildlife and habitat; and social-cultural and economic dynamics. The Keystone Center, Draft Report: Stakeholder Assessment and Dialogue Feasibility Study for the Proposed Pebble Project Southwest Alaska, Executive Summary 18 (Sept. 2, 2008). The science panels received presentations from Pebble Partnership consultants working on the Partnership's environmental baseline study program and met publicly with Pebble Partnership representatives and interested members of the public and state and federal agencies to offer their perspectives on the information the Pebble Partnership had developed and receive feedback and respond to questions from the Public. The Pebble Partnership suspended The Keystone Center initiative following the withdrawal of Anglo-American from the Partnership.

<sup>194</sup> Parkin Declaration, note 167 above, at ¶¶ 13-15; *see*, *e.g.*, Northern Dynasty Mines, Inc., Pebble Gold Copper Project Agency Baseline Meetings Draft Minutes (2004); Northern Dynasty Mines, Inc., Baseline Environmental Team Agency Meeting Agenda (2005); Bud Rice, National Parks Service., Pebble Mine Agency Meeting Notes (2005); Northern Dynasty Mines, Inc., Baseline Environmental Team Agency Meetings (2006); The Pebble Limited Partnership, Pebble Project Environmental Baseline Studies Agency Meetings (2012) (agenda).

Republican members of the Senate Environment and Public Works Committee issued a report on August 4, 2015, entitled "Obama's Carbon Mandate: An Account of Collusion, Cutting Corners, and Costing Americans Billions," which was critical of, among other things, EPA's relationships with environmental non-governmental organizations. *See* MAJORITY STAFF OF S. COMM. ON ENVIRONMENT AND PUBLIC WORKS, 114TH CONG., OBAMA'S CARBON MANDATE: An Account of Collusion, Cutting Corners, and Costing Americans Billions 3 (Comm. Print 2015), *available at* <a href="http://www.epw.senate.gov/public/\_cache/files/386eb25d-b723-4ffd-9fcf-218425a33191/epw-staff-report-obama-carbon-mandate.pdf">http://www.epw.senate.gov/public/\_cache/files/386eb25d-b723-4ffd-9fcf-218425a33191/epw-staff-report-obama-carbon-mandate.pdf</a>.

<sup>&</sup>lt;sup>195</sup> Parkin Declaration, note 167 above, at  $\P$  25.

<sup>&</sup>lt;sup>196</sup> See Complaint, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, et al., 3:14-cv-00171-HRH (D. Alaska filed Sept 3, 2014).

<sup>&</sup>lt;sup>197</sup> See, e.g., Letter from Geoffrey Y. Parker, Esq., to Marty Rutherford, Dick Mylius, and Melinda O'Donnell, of ADNR (Jan. 22, 2007) (cc to Patricia McGrath, Regional Mining Coordinator, EPA Region 10, Cindi Godsey, Mining Coordinator, EPA, Don Kuhle, Project Manager, the Corps) (regarding comments by Renewable Resources Coalition and others on ACMP Consistency Review of Pebble Exploration Permits).

<sup>&</sup>lt;sup>198</sup> EPA's Bristol Bay Watershed Assessment – A Factual Review of a Hypothetical Scenario: Before the H. Comm. on Oversight and H. Comm. on Science, Space, and Technology, 113th Cong. 46 (2013) (written statement of Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9) available at <a href="http://docs.house.gov/meetings/SY/SY21/20130801/101231/HHRG-113-SY21-Wstate-NastriW-20130801.pdf">http://docs.house.gov/meetings/SY/SY21/20130801/101231/HHRG-113-SY21-Wstate-NastriW-20130801.pdf</a>; see Email from Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA, to Michelle DePass, Assistant Administrator for International and Tribal Affairs, EPA (Sept. 8, 2010).

<sup>&</sup>lt;sup>199</sup> Letter from Dennis McLerran Regional Administrator, EPA Region 10, to Randy Bailey, Bailey Environmental (Nov. 22, 2013), at 2.

<sup>&</sup>lt;sup>200</sup> Parkin Declaration, note 167 above, at  $\P$  2.

<sup>&</sup>lt;sup>201</sup> *Id.* at ¶ 11. EPA remained responsible for issuing National Pollutant Discharge Elimination System permits under Clean Water Act Section 402 until October 2008, when that responsibility was delegated to the State of Alaska. *Specific State Program Status*, EPA (July 15, 2014), <a href="http://water.epa.gov/polwaste/npdes/basics/State-Program-Status.cfm">http://water.epa.gov/polwaste/npdes/basics/State-Program-Status.cfm</a>.

<sup>&</sup>lt;sup>202</sup> Parkin Declaration, note 167 above, at ¶12.

 $<sup>^{203}</sup>$  *Id.* at ¶ 3.

 $<sup>^{204}</sup>$  *Id.* at ¶ 4.

 $<sup>^{205}</sup>$  *Id.* at ¶ 4.

<sup>&</sup>lt;sup>206</sup> *Id.* at ¶ 6-7. Tami Fordham is EPA Region 10's Alaska Tribal Policy Coordinator and Alaska Tribal Mining Advisor. *Environmental Justice Contacts*, EPA REGION 10 (Aug. 29, 2015), http://yosemite.epa.gov/r10/ocrej.nsf/Environmental+Justice/EJ-Contacts.

<sup>&</sup>lt;sup>207</sup> About Us, Nunamta Aulukestai, <a href="http://www.nunamta.org/about-us.html">http://www.nunamta.org/about-us.html</a> (last visited Sept. 4, 2015).

<sup>&</sup>lt;sup>208</sup> See Tim Bradner, Exploration Permits Up in Air After Court Ruling, ALASKA JOURNAL OF COMMERCE, July 22, 2015, available at <a href="http://www.alaskajournal.com/Alaska-Journal-of-Commerce/July-Issue-4-2015/Exploration-permits-up-in-air-after-court-ruling/">http://www.nunamta.org/about-us.html</a> (last visited Sept. 4, 2015).

<sup>&</sup>lt;sup>209</sup> Press Release, Bristol Bay Native Corporation, BBNC In-Region Shareholder Survey Results (Apr. 16, 2012); *see* BRISTOL BAY NATIVE CORPORATION, <a href="http://www.bbnc.net/">http://www.bbnc.net/</a> (last visited Sept. 4, 2015); *see Our Corporation*, BRISTOL BAY NATIVE CORPORATION, <a href="http://www.bbnc.net/index.php/our-corporation">http://www.bbnc.net/index.php/our-corporation</a> (last visited Sept. 7, 2015).

<sup>&</sup>lt;sup>210</sup> Jason Metrokin, Editorial, *Bristol Bay Headwaters No Place for Pebble*, ALASKA DISPATCH NEWS, Sept. 23, 2011, *available at* <a href="http://www.adn.com/article/20110923/bristol-bay-headwaters-no-place-pebble">http://www.adn.com/article/20110923/bristol-bay-headwaters-no-place-pebble</a>.

<sup>215</sup> Participants in the meeting included Chris Wood, President and CEO of Trout Unlimited; Michael Gehrke, Vice President of The Benenson Group; Whit Fosburgh, President and CEO of the Theodore Roosevelt Conservation Partnership; Rick Halford, former Alaska State Senate President; and Wayne Nastri, former EPA Regional Administrator for Region 9. Speakers highlighted local and national media attention opposing the Pebble mine. See Email from Palmer Hough, Environmental Scientist, EPA, to EPA's Bristol Bay Team (Apr. 16, 2012) (attaching a compilation of news clippings and editorials from publications in Colorado, Michigan, New Mexico, Oregon, Washington, and Wisconsin); Editorial, The Risk to Bristol Bay, N.Y. TIMES, Feb. 14, 2011, at A26; Mary Pemberton, Washington Senator Asks EPA to Protect **Bristol** Bay, ASSOCIATED PRESS, Sept. 12, 2011, available http://www.businessweek.com/ap/financialnews/D9PN7OSG0.htm; Becky Bohrer, Concerns Raised About Pebble Mine Study Process, ASSOCIATED PRESS, Feb. 24, 2012; Chris Wood, Mr. President: Keep Salmon on Our Plates!, HUFFINGTON POST, Feb. 16, 2012; Nation's Commercial Fishermen Unite to Protect Bristol Bay Alaska, THE SACRAMENTO BEE, Mar. 28, 2012; Kim Murphy, Vote Targeting Pebble Mine in Alaska is Over, the Battle Isn't, L.A. TIMES, Oct. 19, 2011.

<sup>216</sup> Bristol Bay Native Corporation, A Resolution in Support of BBNC's Recommendations for Proactive EPA Action to Protect the Water and Salmon of Bristol Bay, BBNC Res. 2012-04 (Mar. 23, 2012).

In October 2012, Alaska's Lieutenant Governor Mead Treadwell received an application for a "Bristol Bay Forever" initiative which would "require final legislative authorization for any new large-scale metallic sulfide mining operations in the watershed of the Bristol Bay Fisheries Reserve." *Hughes v. Treadwell*, 328 P.3d 1037, 1037 (Alaska 2014). Lieutenant Governor Treadwell certified the initiative application. *Id.* Opponents of the initiative filed litigation to challenge the certification on state constitutional "separation of powers" grounds. *See* Alaska Miners Association, PowerPoint Presentation, Ballot Measure 4 Opposition Discussion (2014), *available at* <a href="http://akcommonground.org/wp-content/uploads/2014/08/Crockett-BM4.pdf">http://akcommonground.org/wp-content/uploads/2014/08/Crockett-BM4.pdf</a>. On June 23, 2014, the Alaska Supreme Court held that the initiative did not violate Alaska's Constitution and refused to enjoin its placement on the ballot. *See Hughes v. Treadwell*, 328 P.3d 1037, 1037-38 (Alaska 2014).

On November 4, 2014, Alaska's ballot proposed "[a]n Act providing for protection of Bristol Bay wild salmon and waters within or flowing into the existing 1972 Bristol Bay

<sup>&</sup>lt;sup>211</sup> Bristol Bay Native Corporation, *Resource Protection Policy*, BBNC Res. 09-41 (Dec. 11, 2009); *see* Jason Metrokin, Editorial, *Bristol Bay Headwaters No Place for Pebble*, ALASKA DISPATCH NEWS, Sept. 23, 2011, *available at* <a href="http://www.adn.com/article/20110923/bristol-bay-headwaters-no-place-pebble">http://www.adn.com/article/20110923/bristol-bay-headwaters-no-place-pebble</a>.

<sup>&</sup>lt;sup>212</sup> Press Release, Bristol Bay Native Corporation, BBNC In-Region Shareholder Survey Results (Apr. 16, 2012).

 $<sup>^{213}</sup>$   $\it Id.;$  Dittman Research & Communications, BBNC Shareholder Opinions—The Pebble Mine Project (2011).

<sup>&</sup>lt;sup>214</sup> Press Release, Bristol Bay Native Corporation, BBNC In-Region Shareholder Survey Results (Apr. 16, 2012); Attendance List for EPA Administrator's April 16, 2012 Roundtable with Sportsmen for Bristol Bay (Apr. 16, 2012).

Fisheries Reserve." *Initiative Petition List*, STATE OF ALASKA DIVISION OF ELECTIONS, <a href="http://www.elections.alaska.gov/pbi\_ini\_status\_list.php">http://www.elections.alaska.gov/pbi\_ini\_status\_list.php</a> (last visited Sept. 8, 2015). The ballot measure provided, in part, that the legislature would need "to approve future large-scale metallic sulfide mines in the Bristol Bay Fisheries Reserve (BBFR) by passing a law." STATE OF ALASKA DIVISION OF ELECTIONS, BALLOT MEASURE NO. 4 – 12BBAY AN ACT PROVIDING FOR PROTECTION OF BRISTOL BAY WILD SALMON AND WATERS WITHIN OR FLOWING INTO THE EXISTING 1972 BRISTOL BAY FISHERIES RESERVE (2014), *available at* <a href="http://www.elections.alaska.gov/doc/bml/BM4-12BBay-ballot-language.pdf">http://www.elections.alaska.gov/doc/bml/BM4-12BBay-ballot-language.pdf</a>. Legislative approval would require a finding that any proposed mine would not endanger the BBFR fishery. The approval would be in addition to any other required permits or authorizations." *Id.* The voters approved the initiative by a vote of 66% in favor and 34% opposed. *Initiative Petition List*, STATE OF ALASKA DIVISION OF ELECTIONS, <a href="http://www.elections.alaska.gov/pbi\_ini\_status\_list.php">http://www.elections.alaska.gov/pbi\_ini\_status\_list.php</a> (last visited Sept. 8, 2015).

<sup>217</sup> See, e.g., EPA, EPA-R10-OW-2014-0505-0988, PUBLIC HEARING TRANSCRIPT DILLINGHAM, Aug. 14, 2014 (2014) (statement of Lisa Reimers), available at <a href="http://www.regulations.gov/#!">http://www.regulations.gov/#!</a> documentDetail;D=EPA-R10-OW-2014-0505-0988; see also, e.g., Declaration of Trefon Angasan in Support of Plaintiff's Motion for Preliminary Injunction, Pebble Ltd. Partnership v. U.S. Envtl. Protection Agency, No. 3:14-cv-00171-HRH (D. Alaska Nov. 19, 2014); Letter from Trefon Angasan (Chair, Alaska Peninsula Corporation; Director, NUNA Resources; Tribal Representative to EPA from the South Naknek Tribe) to Lisa Jackson, Administrator, EPA (Jan. 20, 2012).

On August 26, 2008, following a history that included a number of legal and regulatory battles, the Alaska Clean Water Initiative, also known as Measure 4, appeared on Alaska's primary election ballot. *See* Elizabeth Bluemink, 'Clean Water' Initiative Gets Court OK, ALASKA DISPATCH NEWS, July 3, 2008, <a href="http://www.adn.com/article/20080703/clean-water-initiative-gets-court-ok">http://www.adn.com/article/20080703/clean-water-initiative-gets-court-ok</a> (reporting on the Supreme Court of Alaska's decision to allow the Clean Water Initiative to go on the ballot); see STATE OF ALASKA, 2008 BALLOT MEASURES VOTER GUIDE 43-47, available at <a href="http://www.elections.alaska.gov/doc/bmp/2008/2008">http://www.elections.alaska.gov/doc/bmp/2008/2008</a> bmp.pdf. The ballot language read:

This bill imposes two water quality standards on new large scale metallic mineral mining operations in Alaska. The first standard does not allow such a mining operation to release into water a toxic pollutant that will adversely affect human health or the life cycle of salmon. The second standard does not allow such a mining operation to store mining wastes and tailings that could release sulfuric acid, other acids, dissolved metals or other toxic pollutants that could adversely affect water that is used by humans or by salmon. The bill defines a large scale metallic mineral mining operation to mean a metallic mineral mining operation that is in excess of 640 acres in size. The bill defines toxic pollutants to include substances that will cause death and disease in humans and fish, and includes a list of substances identified as toxic pollutants under federal law.

STATE OF ALASKA, 2008 BALLOT MEASURES VOTER GUIDE 43. The primary sponsor of the measure argued that it would "protect Bristol Bay's commercial, sport and subsistence fisheries

from being harmed by a toxic chemical spill at the proposed Pebble Mine." *Id.* at 46. Opponents argued that the measure was "a serious threat to Alaska's economy" that could "result in the loss of thousands of mining and related-industry jobs across Alaska; undermine economic opportunity in the rural areas of [Alaska]; and force the shutdown of existing mines and prevent new mines in the future." *Id.* at 47. The measure was defeated by a vote of 56.41% to 43.59%. STATE OF ALASKA DIVISION OF ELECTIONS, 2008 PRIMARY ELECTION, AUGUST 26, 2008, OFFICIAL RESULTS (2008), at 8, *available at* <a href="http://www.elections.alaska.gov/results/08PRIM/data/results.pdf">http://www.elections.alaska.gov/results/08PRIM/data/results.pdf</a>.

- <sup>218</sup> ENVIRONMENTAL PROTECTION AGENCY, EPA-R10-OW-2014-0505-0988, PUBLIC HEARING TRANSCRIPT DILLINGHAM, AUG. 14, 2014 (2014), *available at* <a href="http://www.regulations.gov/#!documentDetail;D=EPA-R10-OW-2014-0505-0988">http://www.regulations.gov/#!documentDetail;D=EPA-R10-OW-2014-0505-0988</a>.
- <sup>219</sup> See Letter from Trefon Angasan (Chair, Alaska Peninsula Corporation; Director, NUNA Resources; Tribal Representative to EPA from the South Naknek Tribe) to Lisa Jackson, Administrator, EPA (Jan. 20, 2012); Community & Stakeholder Partnerships, NORTHERN DYNASTY MINERALS, LTD. <a href="http://www.northerndynastyminerals.com/ndm/Pebble CommunityStakeholder\_Partnerships.asp">http://www.northerndynastyminerals.com/ndm/Pebble CommunityStakeholder\_Partnerships.asp</a> (last visited Sept. 4, 2015). Trefon Angasan is the owner of Trefon Angasan Consulting, which as of 2011 had "a contract providing advice on Native and fishery issues to the Pebble Limited Partnership (PLP)." Trefon Angasan, South Naknek Tribal Council, Comments and Questions on the Bristol Bay Assessment (BBA) Draft Outline (Aug. 22, 2011).
- <sup>220</sup> See Community & Stakeholder Partnerships, NORTHERN DYNASTY MINERALS, LTD. <a href="http://www.northerndynastyminerals.com/ndm/Pebble\_Community\_Stakeholder\_Partnerships.asp">http://www.northerndynastyminerals.com/ndm/Pebble\_Community\_Stakeholder\_Partnerships.asp</a> (last visited Sept. 4, 2015).
- <sup>221</sup> *Id*.
- EPA, EPA-R10-OW-2014-0505-0988, PUBLIC HEARING TRANSCRIPT DILLINGHAM, Aug. 14, 2014 (2014), available at <a href="http://www.regulations.gov/#!documentDetail;D=EPA-R10-OW-2014-0505-0988">http://www.regulations.gov/#!documentDetail;D=EPA-R10-OW-2014-0505-0988</a> (requesting that EPA stop its "unprecedented action against Pebble and the people of Iliamna" so that Pebble could "go through the NEPA permitting process like every other project in America so we can decide for ourselves whether it is a good project for our people").
- <sup>223</sup> See Declaration of Trefon Angasan in Support of Plaintiff's Motion for Preliminary Injunction at 3 Pebble Ltd. Partnership v. U.S. Envtl. Protection Agency, No. 3:14-cv-00171-HRH (D. Alaska Nov. 19, 2014).
- Letter from Trefon Angasan (Chair, Alaska Peninsula Corporation; Director, NUNA Resources; Tribal Representative to EPA from the South Naknek Tribe) to Lisa Jackson, Administrator, EPA (Jan. 20, 2012). Alaska Peninsula Corporation urged EPA to focus their assessment on "a careful review of all of the existing data" rather than "conjecture." *Id.*
- <sup>225</sup> Email from Cheryl Moody, Three Parameters Plus, Inc., to Michael Smith, NEPA and Permitting Manager, Northern Dynasty Minerals (June 2, 2005).
- <sup>226</sup> Email from Phil North, EPA, to Michael Szerlog, EPA, and Marcia Combes, EPA (Aug. 17, 2009); *see also* Email from Phil North, EPA, to John Pavitt, EPA, and Patricia McGrath, EPA (Sept. 28, 2009).

<sup>&</sup>lt;sup>227</sup> Email from Geoffrey Y. Parker, Esq., to Phil North, EPA (Jan. 8, 2010).

<sup>&</sup>lt;sup>228</sup> Draft letter from six federally-recognized tribes to Michelle Pirzadeh, Acting Regional Administrator, EPA Region 10 (Jan. 7, 2009) (The tribes were Nondalton Tribal Council, Koliganek Village Council, New Stuyahok Traditional Council, Ekwok Village Council, Curyung Tribal Council, and Levelock Village Council.).

<sup>&</sup>lt;sup>229</sup> EPA, PowerPoint Presentation, Proposed Pebble Mine Project Alaska: Briefing for Administrator Lisa Jackson (Jan. 13, 2010), at slide 39.

<sup>&</sup>lt;sup>230</sup> EPA, PowerPoint Presentation, Proposed Pebble Mine Project Alaska: Briefing for Susan Bromm (Feb. 2, 2010).

<sup>&</sup>lt;sup>231</sup> Letter from six federally-recognized tribes to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (May 2, 2010), at 1. The Petitioning Tribes were Nondalton Tribal Council, Koliganek Village Council, New Stuyahok Traditional Council, Ekwok Village Council, Curyung Tribal Council, and Levelock Village Council.

<sup>&</sup>lt;sup>232</sup> *Id.* at 3, 6; *see* Joel R. Reynolds et al., Comments on Behalf of the Natural Resources Defense Council on the U.S. Environmental Protection Agency Draft Bristol Bay Watershed Assessment 12 (2012).

<sup>&</sup>lt;sup>233</sup> See BBWA, note 50 above, at 1-2; PROPOSED DETERMINATION, note 9 above, at § 2.1.1.2; Parkin Declaration, note 167 above, at ¶ 18; Email from Wayne Nastri, former EPA Regional Administrator for Region 9, to Bob Sussman, Senior Policy Counsel to the EPA Administrator (Sept. 8, 2010); Letter from David Harsilla, President of the Alaska Independent Fishermen's Marketing Association, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (May 13, 2010); Letter from Scott Hed, Director, Sportsman's Alliance for Alaska, to Lisa Jackson, Administrator, EPA (Nov. 1, 2010); Letter from Robert Heyano, President of the Ekuk Village Council, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (Dec. 17, 2010); Letter from the president of the Twin Hills Village Council, to Lisa Jackson, Administrator, EPA (Dec. 22, 2010).

<sup>&</sup>lt;sup>234</sup> See BBWA, note 50 above, at 1-2; PROPOSED DETERMINATION, note 9 above, at § 2.1.1.2.

Letter from Sean Parnell, Governor, State of Alaska, to Lisa Jackson, Administrator, EPA (Sept. 21, 2010), at 1. The Governor stated that "[f]ederal preemption of traditional State land use authority is an alarming prospect to say the least." *Id.* He added that "Section 404(c) does not offer any more protection for area resources than does Section 404(b)," which would be part of the Permit/NEPA Process and would "produce volumes of studies and information that would allow for fully informed decisions about potential impacts from mining in the area." *Id.* at 1-2.

<sup>&</sup>lt;sup>236</sup> *Id.* at 2-3.

<sup>&</sup>lt;sup>237</sup> *Id.* at 3.

<sup>&</sup>lt;sup>238</sup> BBWA, note 50 above, at 1-2; PROPOSED DETERMINATION, note 9 above, at 2-5 (these tribes "included four federally recognized Bristol Bay tribal governments (Newhalen Tribal Council, South Naknek Tribal Council, King Salmon Traditional Village Council, and Iliamna Village Council)"); Parkin Declaration, note 167 above, at ¶ 19 (listing Newhalen Tribal Council and Iliamna Village Council as two groups who requested that EPA wait for formal mine permit applications); Letter from Alaska Support Industry Alliance to Lisa Jackson, Administrator, EPA

(Dec. 17, 2010); Letter from Samuel Fortier, Esq., to the Shareholders of Alaska Peninsula Corporation (Apr. 16, 2012), available at <a href="http://www.alaskapeninsulacorp.com/wpcontent/uploads/20120423112452935.pdf">http://www.alaskapeninsulacorp.com/wpcontent/uploads/20120423112452935.pdf</a>; FWS, BRISTOL BAY WATERSHED ASSESSMENT AND POTENTIAL SECTION 404(C) ACTIONS (2012) available at <a href="http://www.fws.gov/whhcc/doc/BBWA%20and%20404%20talking%20pts.pdf">http://www.fws.gov/whhcc/doc/BBWA%20and%20404%20talking%20pts.pdf</a> (identifying Pedro Bay as a group requesting that EPA wait for permit applications to be submitted); Letter from Resource Development Council to Dennis McLerran, Regional Administrator, EPA Region 10 (May 7, 2012).

<sup>239</sup> See Options Paper, note 46 above; Email from Phil North, EPA, to Mary Thiesing, EPA (May 10, 2010); see also Email from Phil North, EPA, to Michael Szerlog, EPA (May 12, 2010) (cc to Cara Steiner-Riley, Esq., EPA, and Mary Thiesing, EPA). EPA's production of documents pursuant to FOIA requests made by the Pebble Partnership is incomplete. See Sections X.A, X.E.3. The repository of documents supplied in response to the Pebble Partnership's FOIA requests does not include a final version of the "options paper."

Documents indicate that Mr. North and others "modified and finalized" the options paper on August 23, 2010 "in light of recent events" and supplied it to EPA's Pebble Project Manager Richard Parkin "for purposes of [his] discussion [that] week." Email from Phil North, EPA, to Richard Parkin, EPA (Aug. 23, 2010). These "recent events" were the "BBNC and [Bristol Bay Native Association] letters [requesting EPA act under Section 404(c)] and better understanding of the area wide potential for mining." Email from Phil North, EPA, to Cara Steiner-Riley, EPA (Aug. 24, 2010) (cc to Mary Thiesing, EPA). EPA email indicates that Mr. Parkin anticipated meeting with Regional Administrator McLerran, EPA Region 10 Director of the Office of Water and Watersheds Mike Bussell, and other EPA personnel about the options paper on August 26, 2010. See Email from Richard Parkin, EPA, to Phil North, Patricia McGrath, Michael Szerlog, Mary Thiesing, and Cara Steiner-Riley, all EPA (Aug. 24, 2010) (cc to Linda Anderson-Carnahan and other EPA personnel).

<sup>240</sup> OPTIONS PAPER, note 46 above. In editing the draft options paper, EPA Region 10's Mining Coordinator advised that "[w]e need to be carefully [sic] about speculating about impacts of the project, beyond the potential physical footprint, until we know more about the project proposal." Email from Patricia McGrath, EPA, to Michael Szerlog, EPA, et al. (June 8, 2010).

<sup>&</sup>lt;sup>241</sup> Email from Richard Parkin, EPA, to Phil North, EPA, et al. (Aug. 24, 2010).

<sup>&</sup>lt;sup>242</sup> *Id.*; *see also* Email from Elizabeth McKenna, Esq., EPA, to Lor Socheata, FWS (Feb. 19, 2014) (cc to Phil Brna, Lori Verbrugge, Steve Klosiewski, and Timothy Jennings, all FWS).

<sup>&</sup>lt;sup>243</sup> Email from Phil North, EPA, to Cara Steiner-Riley, Esq., David Allnutt, Linda Anderson-Carnahan, Marcia Combes, Mary Thiesing, Michael Szerlog, Mike Bussell, Patricia McGrath, Richard Parkin, Sally Thomas, Tami Fordham, all EPA (June 30, 2010).

<sup>&</sup>lt;sup>244</sup> Email from Geoffrey Y. Parker, Esq., to Cara Steiner-Riley, Esq., EPA (June 29, 2010) (cc to Phil North, EPA).

 $<sup>^{245}</sup>$  *Id*.

 $<sup>^{246}</sup>$  *Id*.

<sup>&</sup>lt;sup>247</sup> Email from Geoffrey Y. Parker, Esq., to Phil North, EPA (June 29, 2010); Draft letter from Geoffrey Y. Parker, Esq., to Kate Miller, Trout Unlimited (June 28, 2010).

<sup>&</sup>lt;sup>248</sup> See Email from Doug Limpinsel, NOAA, to Jeanne Hanson, NOAA (Aug. 27, 2010).

<sup>249</sup> *Id*.

<sup>250</sup> Id.

<sup>251</sup> See Email from Doug Limpinsel, NOAA, to Phil North, EPA (Aug. 30, 2010).

<sup>252</sup> *Id*.

<sup>253</sup> *Id*.

<sup>254</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to James W. Balsiger, Ph.D., Regional Administrator, National Marine Fisheries Service (Feb. 7, 2011).

<sup>255</sup> Letter from James W. Balsiger, Ph.D., Regional Administrator, National Marine Fisheries Service to Dennis McLerran, Regional Administrator, EPA Region 10 (Mar. 30, 2011).

<sup>256</sup> DISCUSSION MATRIX, note 43 above, at 1.

<sup>257</sup> *Id.* The State of Alaska specifically objected that EPA's reference to the use of Section 404(c) to "serve as model of proactive watershed planning" as "an action akin to land management, which is a role reserved to the states." Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 29, 2014). The State added that such action may violate the Alaska Statehood Act and the Cook Inlet Exchange ratified in an amendment to the Alaska Native Claims Settlement Act, and "creates unnecessary constitutional and takings concerns." *Id.* 

<sup>258</sup> DISCUSSION MATRIX, note 43 above, at 2.

<sup>259</sup> Parkin Declaration, note 167 above, at ¶ 21.

 $^{260}$  *Id*.

<sup>261</sup> Email from Phil North, EPA, to Michael Szerlog, EPA, and Richard Parkin, EPA (Sept. 14, 2010). Mr. North forwarded this message to Geoffrey Y. Parker, Esq., later that day. Email from Phil North, EPA, to Geoffrey Y. Parker, Esq. (Sept. 14, 2010).

 $^{262}$  *Id*.

<sup>263</sup> *Id*.

<sup>264</sup> *Id*.

<sup>265</sup> Email from Phil Brna, FWS, to Frances Mann, FWS (Sept. 23, 2010) (cc to Ann Rappoport, FWS).

<sup>266</sup> Id.

<sup>267</sup> *Id*.

<sup>268</sup> *Id*.

<sup>269</sup> *Id*.

<sup>270</sup> Memorandum from EPA to FWS, "EPA to Seek Service Support When They Use Section 404(c) of the Clean Water Act" (2010).

<sup>271</sup> *Id*.

 $^{272}$  *Id*.

The Pebble Partnership representatives with whom we spoke advised us that neither Administrator Jackson nor any other EPA personnel advised the Pebble Partnership during their July 28, 2010 meeting that EPA had received a petition two months prior from the Petitioning Tribes requesting EPA to act under Section 404(c). The Partnership further advised us that it never received from EPA official notice of the tribes' petition; rather, the Partnership learned about the Section 404(c) request by reading an *L.A. Times* article published on August 3, 2010. See Kim Murphy, Battle over Pebble Mine Shifts to EPA" LA TIMES, Aug. 3, 2010, available at <a href="http://latimesblogs.latimes.com/greenspace/2010/08/battle-over-pebble-mine-shifts-to-epa.html">http://latimesblogs.latimes.com/greenspace/2010/08/battle-over-pebble-mine-shifts-to-epa.html</a>.

 $<sup>^{273}</sup>$  *Id.*; see Email from Phil Brna, FWS, to Frances Mann, FWS (Sept. 23, 2010) (with cc to Ann Rappoport, FWS).

<sup>&</sup>lt;sup>274</sup> EPA, FY11 PROPOSED INVESTMENT: BRISTOL BAY 404(C) (emphasis in original).

<sup>&</sup>lt;sup>275</sup> *Id*.

<sup>&</sup>lt;sup>276</sup> *Id*.

Press Release, EPA, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011); see Assessment of Potential Large-Scale Mining on the Bristol Bay Watershed of Alaska: Nomination of Peer Reviewers, 77 Fed. Reg. 11,111 (Feb. 24, 2012) (Seeking nominations for peer reviewers of the assessment, EPA stated "[t]his assessment was launched in response to concerns from federally recognized tribes and others, who petitioned the agency to evaluate potential impacts of large-scale mining on aquatic resources."); Proposed Determination to Restrict the Use of an Area as a Disposal Site; Pebble Deposit Area, Southwest Alaska, 79 Fed. Reg. 42,314, 42,316 (July 21, 2014) (Giving notice of its Proposed Determination, EPA stated that "[b]ased upon information known to EPA about the proposed mine at the Pebble deposit and its potential impact on fishery resources, and as a result of multiple inquiries, concerns, and petitions to EPA to use its authorities to protect these fishery resources, EPA decided to conduct an ecological risk assessment before considering any additional steps."); see also Press Release, EPA, EPA Moves to Protect Bristol Bay Fishery from Pebble Mine (Feb. 28, 2014); BBWA, note 50 above, at 1-2; Proposed Determination, note 9 above, at 2-5.

<sup>&</sup>lt;sup>278</sup> Email from Phil North, EPA, to Doug Limpinsel, NOAA (Mar. 8, 2010).

<sup>&</sup>lt;sup>279</sup> Email from Phil North, EPA, to Carol Ann Woody, Ph.D. (Mar. 9, 2010).

<sup>&</sup>lt;sup>280</sup> Email from Tim Troll, The Nature Conservancy, to Phil North, EPA (Mar. 24, 2010).

<sup>&</sup>lt;sup>281</sup> Parkin Declaration, note 167 above, at  $\P$  20.

<sup>&</sup>lt;sup>282</sup> *Id*.

<sup>&</sup>lt;sup>283</sup> *See* Email from Dorothy Larson, Tribal Administrator, Curyung Tribal Council, to Tami Fordham, Alaska Resource Extraction Tribal Policy Advisor, EPA (July 26, 2010); Parkin Declaration, note 167 above, at ¶ 20.

<sup>&</sup>lt;sup>284</sup> Email from Tami Fordham, Alaska Resource Extraction Tribal Policy Advisor, EPA, to Ralph Anderson, et al. (July 20, 2010); *see* Parkin Declaration, note 167 above, at ¶ 20.

<sup>&</sup>lt;sup>285</sup> See Press Release, EPA, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011).

<sup>&</sup>lt;sup>286</sup> See id.

<sup>287</sup> *Id*.

<sup>288</sup> *Id*.

- <sup>289</sup> Email from Gregory Peck, Chief of Staff, EPA Office of Water, to Monica Medina, NOAA, Terrance Salt, the Corps, Barbara Cassady, the Corps, John Tubbs, Department of Interior, and Laura Davis, Department of Interior (Feb. 3, 2011).
- <sup>290</sup> Email from Col. Reinhard Koenig, Alaska District Engineer, the Corps, to Kevin Morgan, the Corps (Feb. 4, 2011) (cc to other Corps staff, including James Stone, Jackie Leseman, Terri Stinnett-Herczeg, Steve Meyers, Dave Casey, Katherine McCafferty, Glen Justis, William Keller, and Anne Burman).
- <sup>291</sup> Email from Margaret Gaffney-Smith, Chief, Regulatory Program, the Corps, to David Evans, EPA (Feb. 4, 2011) (cc to Brian Frazer, EPA, Terrance Salt, the Corps, Chip Smith, Office of the Assistant Secretary of the Army); Email from Margaret Gaffney-Smith, Chief, Regulatory Program, the Corps, to Kevin Morgan, the Corps (Feb. 4, 2011).
- <sup>292</sup> Email from Gregory Peck, Chief of Staff, EPA Office of Water, to Chip Smith, Office of the Assistant Secretary of the Army (Feb. 4, 2011); Email from David Evans, Director, Wetlands Division, EPA, to Margaret Gaffney-Smith, Chief, Regulatory Program, the Corps (Feb. 4, 2011).
- <sup>293</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Col. Reinhard Koenig, Alaska District Engineer, the Corps (Feb.7, 2011); Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Col. Reinhard Koenig, Alaska District Engineer, the Corps (Mar. 15, 2011).
- <sup>294</sup> Email from Dave Casey, Kenai Field Office Supervisor, the Corps, to Steve Meyers and Kevin Morgan, the Corps. (Feb. 17, 2011).
- <sup>295</sup> Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Richard Parkin, EPA (Aug. 8, 2011).
- Letter from Michael Geraghty, Attorney General, State of Alaska, to Arthur Elkins, Jr., Inspector General, EPA (Feb. 3, 2014); Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Mar. 9, 2012); Letter from Michael Geraghty, Attorney General, State of Alaska to Lisa Jackson, Administrator, EPA and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012). The State would later express to EPA that it "finds itself in a 'damned if you do, damned if you don't' situation. We are asked to cooperate in a process which, in our view, lacks authority and is inappropriate . . . . If we do cooperate, we are 'participating' in the process and our position is misrepresented. If we choose to ignore an assessment which is not lawfully grounded, it is argued we have forfeited our right to complaint." Letter from Michael Geraghty, Attorney General, State of Alaska to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 17, 2012).
- <sup>297</sup> See Email from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Feb. 7, 2011).
- <sup>298</sup> Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Feb. 28, 2011). EPA had shared with "affected Tribes and

stakeholders," including the Pebble Partnership, a draft outline for the BBWA. *See* Email from Cara Steiner-Riley, Esq., EPA, to Robert Reges, Esq. (Feb. 14, 2011).

- <sup>299</sup> Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Feb. 28, 2011), at 1.
- <sup>300</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to John Shively, CEO, Pebble Partnership (Mar. 30, 2011), enclosure at 3.
- <sup>301</sup> Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Feb. 28, 2011), at 3.
- $^{302}$  See Parkin Declaration, note 167 above, at ¶¶ 23-32.
- <sup>303</sup> Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Oct. 21, 2011), at 5.
- <sup>304</sup> *Id*. at 2.
- <sup>305</sup> *Id.*; Email from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10, and Richard Parkin, EPA (Nov. 4, 2011); Parkin Declaration, note 167 above, at ¶ 28.
- <sup>306</sup> See Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Oct. 21, 2011), at 2-3.
- $^{307}$  See id.
- <sup>308</sup> See id.
- <sup>309</sup> *Id.* at 3.
- <sup>310</sup> *Id*.
- <sup>311</sup> See Email from Sheila Eckman, EPA, to the Intergovernmental Technical Team (Aug. 1, 2011). EPA invited representatives from ADNR, the Alaska Department of Environmental Conservation, the Alaska Department of Fish and Game, the Alaska Department of Law, the Alaska Department of Public Health, the National Park Service, FWS, NOAA, the Bureau of Land Management of the Department of the Interior, the Curyung Tribal Council, the Ekwok Village Council, the Iliamna Village Council, the New Koliganek Village Council, the Levelock Village Council, the Newhalen Tribal Council, the Nondalton Tribal Council, and the South Naknek Village Council to join the intergovernmental technical team. *Id*.
- <sup>312</sup> See id.
- <sup>313</sup> See *id*.
- $^{314}$  See EPA, Bristol Bay Watershed Assessment Intergovernmental Technical Team Guidelines 2 (2011).
- <sup>315</sup> See id. at 1.
- <sup>316</sup> See id. at 2.
- <sup>317</sup> An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, AK, 77 Fed. Reg. 31,353 (May 25, 2012).

For Native Alaskans, this is an extraordinarily busy time of year. In our communities, the summer months are devoted to subsistence hunting and fishing activities, as well as commercial fishing. People are working long hours gathering enough food, stocking freezers, and earning enough money to make it through the long winter; we simply do not have time to review a draft report hundreds of pages long which cites hundreds of other studies. Plainly put, we need more time to consider this draft report. We ask you to reconsider this and extend the comment period.

*Id.* at 2.

<sup>&</sup>lt;sup>318</sup> Press Release, EPA, EPA Releases for Public Comment Draft Scientific Study of Bristol Bay Watershed, (May 18, 2012); Letter from Michael Geraghty, Attorney General, State of Alaska, to Lisa Jackson, Administrator, EPA (May 29, 2012), at 1.

<sup>&</sup>lt;sup>319</sup> Letter from Michael Geraghty, Attorney General, State of Alaska, to Lisa Jackson, Administrator, EPA (May 29, 2012), at 1-2.

<sup>&</sup>lt;sup>320</sup> *Id.* at 2. *See also* Letter from Michael Geraghty, Attorney General, State of Alaska to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 7-9 (noting EPA's refusal to extend the comment period and commenting that "[i]n short, Alaska believes this premature Assessment and the highly accelerated process that EPA is embarked upon is not well-founded in law and simply inadequate, when compared to the rigorous environmental reviews that are assured with a specific mine proposal and permit application[.]").

<sup>&</sup>lt;sup>321</sup> Letter from Sen. Lisa Murkowski and Rep. Don Young to Lisa Jackson, Administrator, EPA (June 7, 2012) (requesting that the EPA extend the comment period, in part, to accommodate subsistence lifestyles in Alaska); Letter from Sen. Cathy Giessel to EPA (June 22, 2012).

Letter from Nuna Resource, Inc. to Lisa Jackson, Administrator, EPA (July 23, 2012) (including letters from Iliamna Natives Limited, Iliamna Village Council, Alaska Peninsula Corporation, Kokhanok Village Council, South Naknek Tribal Council, Pedro Bay Corporation, Sun'aq Tribe of Kodiak, Aleut Corporation, Arctic Slope Regional Corporation, Sealaska Corporation, Native Village of Eklutna, Doyon, Limited, Egegik Village Tribal Council, Chignik Lagoon Village Council, Chignik Bay Tribal Council, Native Council of Port Heiden, Gana-A'Yoo, Limited, Naknek Native Village, and hundreds of signatures from concerned citizens). A representative letter stated:

<sup>&</sup>lt;sup>323</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Michael Geraghty, Attorney General, State of Alaska (July 5, 2012), at 1.

 $<sup>^{324}</sup>$  *Id*.

<sup>&</sup>lt;sup>325</sup> *Id.* at 2.

<sup>&</sup>lt;sup>326</sup> *Id.* at 1-2.

<sup>&</sup>lt;sup>327</sup> Email from Phil North, EPA, to Alan Boraas, Kenai Peninsula College (May 7, 2011), at 1.

<sup>&</sup>lt;sup>328</sup> Email from Alan Boraas, Kenai Peninsula College and Catherine Knott, University of Alaska Anchorage, to Tim Troll, The Nature Conservancy, Holly Cusack-McVeigh, Pratt Museum,

Jeanne Schaaf, National Parks Service, John Branson, National Parks Service, Kerry Feldman, University of Alaska Anchorage, Sasha Lindgren, Kenaitze Tribe, Steve Langdon, University of Alaska Anchorage, Karen Evanoff, National Parks Service; and Phil North, EPA; *et al.* (May 7, 2011).

Alan Boraas was selected to participate in the BBWA, despite having written at least three articles in the Anchorage Daily News expressing concerns about mining generally and the potential Pebble mine. See Alan Boraas, Comment, State Should Weigh Banning of Cyanide, ANCHORAGE DAILY NEWS, Mar. 5, 2005, at B4 ("We need to remind ourselves that the resources of Alaska belong to the people of Alaska. It's our gold. It's also our salmon. We should not be trading one for the other, particularly since one is sustainable and edible and the other is not. If cyanide is going to be used in mining, we should insist on the strictest possible safeguards encoded into law. We should consider banning cyanide."); Alan Boraas, Comment, Murkowski Risks Salmon for Gold Mine, ANCHORAGE DAILY NEWS, Dec. 1, 2005, at B6 (Pebble is acceptable "[i]f you don't mind a few floaters in your salmon streams and a little mercury in your wild salmon[.]"); Alan Boraas, Comment, Pebble Mine Partnership Raises Fears, ANCHORAGE DAILY NEWS, Apr. 14, 2007, at B6 (Regarding Rio Tinto's purchase of a 20% share in the Pebble Mine, Boraas states the news is "not good for those concerned with the environmental and community impact of the proposed mine." Boraas recounts some negative events associated with Rio Tinto, such as being taken "to task for a number of questionable practices at mines it or one of its subsidiaries or joint-venture partners operate around the world[.]" He also writes that "[f]riends of Pebble Mine have urged Alaskans to have faith in the permitting process. With partners like Rio Tinto, we better have a lot more than faith.").

<sup>&</sup>lt;sup>329</sup> Email from Phil North, EPA, to Alan Boraas, Kenai Peninsula College (May 7, 2011), at 1 (emphasis added).

 $<sup>^{330}</sup>$  Parkin Declaration, note 167 above, at ¶ 39. The public meetings in Alaska occurred in Anchorage and the villages of Dillingham, Naknek, Levelock, Igiugig, Nondalton, and New Stuyahok. *Id.* 

<sup>&</sup>lt;sup>331</sup> *Id*.

<sup>&</sup>lt;sup>332</sup> *Id*.

POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA (2014), available at <a href="http://www.epa.gov/ncea/pdfs/bristolbay/EPAs%20Response%20to%20Public%20Comments">http://www.epa.gov/ncea/pdfs/bristolbay/EPAs%20Response%20to%20Public%20Comments 1stERD May2012.pdf</a>; see also Parkin Declaration, note 167 above, at ¶ 39. EPA's contractor, Horsley Witten Group, Inc., "organized, summarized, and sorted the comment letters received to help EPA fully consider and respond to all public comments." EPA, RESPONSE TO PUBLIC COMMENTS ON THE MAY 2012 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA (2014), at 1. Twenty-seven mass-mailing campaigns contributed over 227,000 public comments. Of these, 21 mass-mailing campaigns, responsible for approximately 9,000 letters, opposed EPA action; and one campaign, representing 318 individuals or organizations, sought an extension of the public comment period. *Id.* at 2. Over half of the public comments supporting EPA action to protect the watershed were generated by six environmental non-governmental organizations: NRDC (nearly 85,000 submissions); National Parks Conservation Association (over 30,000)

submissions); Sierra Club (over 2,000 submissions); Pew Environmental Group (over 14,000 submissions); World Wildlife Fund (over 8,000 submissions); and Earthworks (over 7,000 submissions). *See id.* at App. 1.

<sup>334</sup> Thousands of individuals and organizations submitted comments on the first assessment draft. We reviewed many of the public comments, including those supplied by key stakeholders. Their comments, summarized below, reflect contrasting positions on an array of scientific and engineering matters.

The Petitioning Tribes' Comments on the First Assessment Draft: Five of the Petitioning Tribes, joined by the Alaska Independent Fishermen's Marketing Association, submitted comments on the first BBWA draft; the sixth member of the Petitioning Tribes separately submitted comments on the draft document. See Letter from Geoffrey Y. Parker, Esq., to Dennis J. McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 1; see Letter from Thomas Tilden, Chief, Curyung Tribal Council to Lisa Jackson, Administrator, EPA (June 12, 2012). The Petitioning Tribes viewed the BBWA as "an exercise of EPA's sound discretion to assist its future decision-making" and urged EPA to start Section 404(c) proceedings provided that the peer review panel "finds that the conclusions of the assessment are sound[.]" Letter from Geoffrey Y. Parker, Esq., to Dennis J. McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 1. The Petitioning Tribes commented that "EPA's conservative approach . . . enhances the quality and certainty of future decisions about (1) whether to commence a 404(c) process, (2) the terms of any 404(c) determination, and (3) how to apply a 404(c) determination." Id.

**BBNC's Comments on the First Assessment Draft:** BBNC offered two sets of comments: one addressing the "scientifically solid, though understated, risk assessment;" and the other the "strong legal and scientific basis" for the BBWA, which it claimed provides a "solid foundation on which to base 404(c) action to protect the salmon and people of Bristol Bay." Letter from L. Tiel Smith, Vice President of Land and Regional Operations, Bristol Bay Native Corporation, to EPA's Office of Environmental Information (July 23, 2012).

BBNC contended that EPA underestimated the amount of habitat which mining operations would destroy. BRISTOL BAY NATIVE CORPORATION, COMMENTS OF BRISTOL BAY NATIVE CORPORATION ON THE U.S. ENVIRONMENTAL PROTECTION AGENCY DRAFT BRISTOL BAY WATERSHED ASSESSMENT Part I, at 2 (2012). BBNC recommended that EPA add discussions addressing the challenges of mitigating habitat loss and of managing water treatment needs to meet water quality standards, as well as answering questions such as "whether there will be adequate cover material and topsoil [during post-reclamation], and whether any mining project in a sub-arctic region has ever successfully achieved reclamation of this nature on so large a scale." *Id.* at Part I, p. 4. BBNC lauded "EPA's commitment to transparency and sound, science-based information to help protect Bristol Bay's waters and fish[.]" *Id.* at Part II, pp. 5, 11.

NRDC's Comments on the First Assessment Draft: On July 23, 2012, NRDC praised the BBWA as "scientifically sound, analytically rigorous, and thoroughly documented, and . . . support[ing] a determination that large-scale mining of the Pebble deposit is irreconcilable with the health and integrity of the fishery, drinking water, wildlife, and recreational resources of the Bristol Bay watershed." Joel R. Reynolds et al. Natural Resources Defense Council, Comments on Behalf of the Natural Resources Defense Council on the U.S. Environmental Protection Agency Draft Bristol Bay Watershed Assessment 1

(2012). Citing studies by the Pebble Partnership as to the interconnection between surface and groundwater in the area of a potential mine, NRDC concluded that "there is no easy engineering 'fix" that would overcome the likely effects of development on groundwater sources. *Id.* at 20.

The State of Alaska's Comments on the First Assessment Draft: On July 23, 2012, the State of Alaska submitted comments and recommended changes to the BBWA draft. See Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012); Letter from Michael Geraghty, Attorney General, State of Alaska to Lisa Jackson, Administrator, EPA and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012). The State enclosed technical comments from five state agencies with an array of expertise and whose duties directly relate to the regulation of mines ranging from permit review to inspection. Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 2. The State's comments were largely critical, including:

- The State noted that "the [BBWA] does not adequately consider Alaska regulations, standards, or the mitigating aspects of modern mine construction methods, operation, and closure," *see id.* at 2-3;
- The State expressed concern with the "speculative" nature of the "conclusions about potential impacts from a hypothetical large mine" and faulted the postulated mine models as based on assumptions rather than "site-specific data or actual mine plans," *id.* at 3;
- The State criticized EPA's "inadequate consideration of mitigation measures." In particular, the State objected to the BBWA draft's discussion of culverts, noting that the State had "communicated to the Pebble Partnership that bridge designs, not culverts, will be the starting point for consideration of all proposed water crossings" and noted further that "the inferior [culvert] designs described in the draft Assessment would not be approved by the State," see id. at 5-6;
- The State claimed that certain data was "not representative, complete or current." *Id.* at 6. The State faulted EPA for selecting data which "repeatedly led to the conclusion that greater or more extensive impacts would occur than what may be realistic . . . ." *Id.* The State also suggested that the Pebble Partnership's EBD contained information that "may change the conclusions regarding risks and impacts" and alleged that EPA used "generalized and conservative assumptions over available field-collected" and site-specific data, Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 5-6; and
- The State noted that the BBWA "fails to put into context how the loss of length of streams and habitat or area of wetlands directly relates to effects on fish production and the overall effect on subsistence, sport or commercial fishing at the larger scales," *id.* at 11.

The Pebble Partnership's Comments on the First Assessment Draft: In letters dated July 23, 2012, the Pebble Partnership and Northern Dynasty separately submitted comments. See Letter from Tom Collier, Esq., Steptoe & Johnson LLP, to EPA (July 23, 2012); Letter from John

Shively, CEO, Pebble Partnership, to EPA (July 23, 2012), at 1. We present their comments together referring to both entities as "the Pebble Partnership."

The Pebble Partnership contended that "[i]f a developer attempted to apply for federal permits based on analyses as flawed as those in this assessment, the applications would be promptly and justifiably rejected." Letter from John Shively, CEO, Pebble Partnership, to EPA (July 23, 2012), at 1-2. The Pebble Partnership urged EPA to stop its watershed assessment and "allow[] the normal permit process to proceed" upon the submission of a permit application, explaining there would be no environmental cost to using the normal process since "no mine could be built before the process was complete." *Id.* at 2.

The Wardrop Report was not, the Partnership cautioned, the functional equivalent of a permit application, particularly given that it lacked a final mine design and plan, including finalized plans for mitigation of environmental effects. *See* Letter from Tom Collier, Esq., Steptoe & Johnson LLP, to EPA (July 23, 2012), at 2-3. The Pebble Partnership attacked EPA's use of a hypothetical mine to estimate environmental effects from mining as "vitiat[ing] the scientific validity of the [BBWA]." *Id.* at 3.

The Pebble Partnership further contended that any plan submitted for permitting by the Partnership would "differ significantly and in important ways" from EPA's hypotheticals and emphasized that "the Pebble mine would be located in an area of Alaska state land that was designated through two democratic land use planning processes for mineral exploration and development" as further cause for EPA to wait until the permitting process has begun so it may evaluate an actual mine plan. *Id.*; *see also* WARDROP REPORT, note 72 above, at 4.

In support of its views, the Pebble Partnership supplied EPA with technical comments from external consultants it had asked to evaluate the BBWA draft. *See* Letter from John Shively, CEO, Pebble Partnership, to EPA (July 23, 2012), at 1. The Partnership, through its consultants, alleged deficiencies including:

- EPA's use of a hypothetical mine that assumed a design which failed to meet State of Alaska and federal permitting standards, see id. at 4-5;
- The failure to take into account avoidance, minimization, and mitigation techniques required by environmental laws and policies that apply to development in wetland areas and that consequently affected EPA's postulated water management strategy, *id.* at 6, Attachment 1 at Attachment A, p. 3 (Environ memorandum), Attachment 2 at p. 6 (Knight Piesold memorandum);
- The failure of EPA to consider fully the Pebble Partnership's EBD as part of its analysis of fish impacts due to stream flow changes and reliance on inappropriate case studies and misuse of scientific methods for estimating effects of development on fish, *id.* at 6-7, Attachment 1 at Attachment B, p. 6 (Environ memorandum);
- The oversimplification of TSF failure scenarios without properly considering geographic and design features that would eliminate or minimize hazards or their potential environmental effects, *see* Letter from Tom Collier, Esq., Steptoe & Johnson LLP, to EPA at 58-59 (July 23, 2012); *see also id.* at Attachment 6, pp 8-9 (Buell memorandum), Attachment 8, pp. 12-16 (Geosyntec memorandum);

- Implying a "zero-risk" approach to engineered systems such as TSFs and pipelines, which are never "designed or constructed to eliminate the complete possibility of failure" but "to meet appropriate safety standards commensurate with the nature of the consequences of failure[,]" *id.* at Attachment 8, p. 3 (Geosyntec memorandum);
- Presenting "the likelihood of a failure of the water collection and treatment system as having a 'high probability' and 'certain'... events while admitting a lack of '... data on the frequency of failures to fully collect and properly treat waters from mining operations'... Hence, the [BBWA] relies on qualitative probabilities without supporting documentation" and fails to account for mitigation techniques that would be made part of the design, *id.* at Attachment 8, pp. 17, 25-26;
- The BBWA's treatment of post-closure, "in perpetuity" obligations which implicate a "broader USEPA policy issue, as there are other facilities, such as closed hazardous and non-hazardous waste landfills, that are intended to remain in perpetuity" and "[b]y placing doubt on the ability to operate perpetually, the BBWA creates an unrealistic standard that is impossible to meet," *id.* at Attachment 8, p. 22;
- The BBWA's presentation of "a misleading evaluation of the probabilities and consequences of a pipeline failure[,]" *id.* at Attachment 8, p. 30; and
- EPA's use of "statistics for culvert failure to make a point that on the order of 50% of culverts crossing streams will fail... The applicability of these statistics is flawed when applied to a modern road meeting current regulatory, design and construction standards." Letter from Tom Collier, Esq., Steptoe & Johnson LLP, to EPA (July 23, 2012), at Attachment 8, p. 37 (Geosyntec memorandum).

Also on July 23, 2012, the Pebble Partnership submitted to EPA's public docket a series of seven white papers prepared by its consultants to address perceived technical shortcomings. *See* Letter from John Shively, CEO, Pebble Partnership, to EPA (July 23, 2012). EPA cited one of the white papers—O. GUSTAFSON, ACTIVE METAL MINES OF THE FRASER RIVER BASIN AND FISH – CASE STUDIES (2012)—in the final BBWA. *See* BBWA, note 50 above, at 8-51, 15-37.

<sup>&</sup>lt;sup>335</sup> An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska—Peer Review Panel Members and Charge Questions, 77 Fed. Reg. 33,213 (June 5, 2012).

<sup>&</sup>lt;sup>336</sup> About Us, Versar.com, <a href="http://www.versar.com/about-us.html">http://www.versar.com/about-us.html</a> (last visited July 7, 2015).

BBWA, note 50 above, at 1-7; *see* VERSAR, INC., FINAL PEER REVIEW REPORT, EXTERNAL PEER REVIEW OF EPA'S DRAFT DOCUMENT, *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 1 (2012). David Atkins, Steve Buckley, Courtney Carothers, Dennis Dauble, Gordon Reeves, Charles Slaughter, John Stednick, Roy Stein, William Stubblefield, Dirk J.A. van Zyl, Phyllis Weber Scannell, and Paul Whitney served as peer reviewers.

<sup>&</sup>lt;sup>338</sup> See Versar, Inc., Final Peer Review Report, External Peer Review of EPA's Draft Document, An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska 1-4 (2012); An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska--Peer Review Panel Members and Charge Questions, 77 Fed. Reg. 33,213 (June 5, 2012); BBWA, note 50 above, at 1-7.

- <sup>341</sup> See id. at ii, 3; BBWA, note 50 above, at 1-7. Ninety-five attendees provided oral comments, each set of which was limited to three minutes. See VERSAR, INC., FINAL PEER REVIEW REPORT, EXTERNAL PEER REVIEW OF EPA'S DRAFT DOCUMENT, AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 3 (2012); EPA, External Peer Review Meeting for An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska, Meeting Overview, Goals, and Expectations (Aug. 7-8, 2012), at 3. Speakers were not permitted to ask "direct questions to or engage in back-and-forth dialogue with reviewers or EPA during their three-minute slot." EPA, External Peer Review Meeting for An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska, Meeting Overview, Goals, and Expectations (Aug. 7-8, 2012), at 3.
- <sup>342</sup> Versar, Inc., Final Peer Review Report, External Peer Review of EPA's Draft Document, *An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska* 3-4 (2012).
- <sup>343</sup> See id. On the third day, "EPA authors observed the session but did not engage in discussion with the peer reviewers or contribute to the development of the summary recommendations." *Id.* at 4.
- <sup>344</sup> *Id.*; BBWA, note 50 above, at 1-7.
- <sup>345</sup> Versar, Inc., Final Peer Review Report, External Peer Review of EPA's Draft Document, *An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska* ii (2012).

- <sup>351</sup> See id. The peer reviewer made this responsive comment following his review of the second draft BBWA.
- <sup>352</sup> EPA, RESPONSE TO PEER REVIEW COMMENTS ON THE MAY 2012 AND APRIL 2013 DRAFTS OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY at 114-15 (2014).
- <sup>353</sup> *Id.* (emphasis added). EPA reiterated in response to a similar concern expressed by another peer reviewer: "Evaluation of alternative strategies . . . [regarding mitigation] should be part of the permitting process for a specific mining plan." *Id.* at 236.

<sup>&</sup>lt;sup>339</sup> See Versar, Inc., Final Peer Review Report, External Peer Review of EPA's Draft Document, An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska 1-4 (2012).

<sup>&</sup>lt;sup>340</sup> *Id*.

<sup>&</sup>lt;sup>346</sup> *Id.* at ii-iv.

<sup>&</sup>lt;sup>347</sup> EPA, RESPONSE TO PEER REVIEW COMMENTS ON THE MAY 2012 AND APRIL 2013 DRAFTS OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY 215 (2014).

<sup>&</sup>lt;sup>348</sup> *Id*. at 113.

<sup>&</sup>lt;sup>349</sup> See id. at 65-66, 68-69, 100.

<sup>&</sup>lt;sup>350</sup> See id. at 65-66.

<sup>355</sup> Drs. David Chambers and Carol Ann Woody, who collectively co-authored four of the five selected reports included in the BBWA (Chambers and Higman 2011, Levit and Chambers 2012, Woody and O'Neal 2010, and Woody and Higman 2011), have been associated with the Center for Science in Public Participation, which has "been providing technical support to a loose coalition of groups opposed to the proposed [Pebble] mine" since 2007 and is "working with the Bristol Bay Native Corporation in its effort to convince EPA to invoke its power under section 404(c) of the Clean Water Act to veto the Pebble Project because it would have an 'unacceptable adverse effect' on fisheries resources in the Bristol Bay region." Examples of CSP2 Projects, CENTER FOR SCIENCE IN PUBLIC PARTICIPATION, http://www.csp2.org/projects (last visited Sept. 7, 2015). Earthworks, the organization behind the Earthworks 2012 report, "applaud[ed] Rio Tinto's decision to withdraw from the Pebble Mine proposal that threatens Alaska's Bristol Bay watershed, home to the world's largest wild sockeye salmon fishery." Earthworks applauds Rio Tinto's withdrawal from Pebble Mine proposal in Alaska's Bristol Bay, EARTHWORKS (Apr. 7, https://www.earthworksaction.org/media/detail/earthworks applauds rio tintos 2014). withdrawal\_from\_pebble\_mine\_proposal\_in alas.

In the draft Options Paper circulated on July 1, 2010, EPA identified "studies by environmentally-oriented consultants," including Ann Maest, as a source of information "to predict environmental impacts." OPTIONS PAPER, note 46 above, at 8. EPA Region 10's thenmining coordinator proposed to strike this source of information "since this study was done for an environmental group and is not without bias." *Id*.

- U.S. Copper Porphyry Mines Report: The Track Record of Water Quality Impacts Resulting from Pipeline Spills, Tailings Failures, and Water Collection and Treatment Failure (Earthworks 2012).
  - o "I find the report, by its nature, to be very biased. In reality, a similar report emphasizing problems and mistakes could probably be written for most human activities[,]" DAVID A. ATKINS ET AL., FINAL PEER REVIEW SUMMARY REPORT: EXTERNAL PEER REVIEW OF KUIPERS ET AL. 2006 (COMPARISON OF PREDICTED

<sup>&</sup>lt;sup>354</sup> See BBWA, note 50 above, at 2-3; Bristol Bay Assessment – Supplemental Peer Review Reports, EPA (Apr. 24, 2013), <a href="http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm?deid">http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm?deid</a> =182065.

<sup>&</sup>lt;sup>356</sup> See BBWA, note 50 above, at 2-3.

<sup>&</sup>lt;sup>357</sup> See BBWA, note 50 above, at 2-3. See Clifford Krauss, Consultant Recants in Chevron N.Y. Pollution Case inEcuador, TIMES, Apr. 12, 2013, available http://www.nytimes.com/2013/04/13/business/research-recanted-in-oil-pollution-case-inecuador.html?\_r=0; The Fraudulent Case Against Chevron in Ecuador, CHEVRON, http://www.chevron.com/ecuador/patternoffraud/# (last visited Sept. 7, 2015); Setting the Record Straight Chevron/Ecuador Lawsuit Settlement, STRATUS http://stratusconsulting.com/2013/05/setting-the-record-straight-on-the-chevronecuador-lawsuitsettlement/ (last visited Sept. 7, 2015). See Email from Palmer Hough, EPA, to Ann Maest, Stratus Consulting (Nov. 10, 2011).

<sup>&</sup>lt;sup>358</sup> See Email from Palmer Hough, EPA, to Brian Frazer, EPA, et al. (Jan. 26, 2011); Email from Judy Smith, EPA, to Sam Snyder, Trout Unlimited (Apr. 13, 2012).

<sup>&</sup>lt;sup>359</sup> Set forth below are illustrative comments from six peer reviewers:

- AND ACTUAL WATER QUALITY AT HARDROCK MINES) AND EARTHWORKS 2012 (U.S. COPPER PORPHYRY MINES REPORT) 20 (2012), available at <a href="http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm?deid=182065">http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm?deid=182065</a>;
- o "an innocent reader might conclude that safe copper porphyry mining operations are not possible," *id.* at 21; and
- o "the authors do not take into account that the mining business is in constant change and each incident results in improvements in engineering technology[,]" id.;
- Comparison of the Pebble Mine with other Alaska Large Hard Rock Mines (Levit and Chambers 2012).
  - o the paper "is clearly intended to convince the reader that the Pebble Mine should not be permitted to operate . . . ." DAVID BRETT ET AL., FINAL PEER REVIEW SUMMARY REPORT: EXTERNAL PEER REVIEW OF CHAMBERS AND HIGMAN 2011 (LONG TERM RISKS OF TAILING DAM FAILURE) AND LEVIT AND CHAMBERS 2012 (COMPARISON OF THE PEBBLE MINE WITH OTHER ALASKA LARGE HARD ROCK MINES) 20 (2012), available at <a href="http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm">http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm</a>?deid=182065;
  - o "the report lacks impartiality" and made one peer reviewer "suspicious of what the authors chose not to mention in order to maintain their perception of the Pebble mine threats[,]" *id.* at 16; and
  - o "some of the language used is a bit alarmist and not based on presented data[,]" *id.* at 19;
- Fish Surveys in Headwater Streams of the Nushagak and Kvichak River Drainages Bristol Bay, Alaska 2008-2010 (Woody and O'Neal 2010).
  - o the paper includes a "disjointed and advocacy-laced Preface, which unfortunately sets the scene for a report that bears little resemblance to the Preface." MICHAEL R. DONALDSON ET AL., FINAL PEER REVIEW SUMMARY REPORT, "EXTERNAL PEER REVIEW OF WOODY AND O'NEAL 2010 (FISH SURVEYS IN HEADWATER STREAMS OF THE NUSHAGAK AND KVICHAK RIVER DRAINAGES BRISTOL BAY, ALASKA, 2008-2010) AND WOODY AND HIGMAN 2011 (GROUNDWATER AS ESSENTIAL SALMON HABITAT IN NUSHAGAK AND KVICHAK RIVER HEADWATERS: ISSUES RELATIVE TO MINING 10 (2012), available at <a href="http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm?deid=182065">http://cfpub.epa.gov/ncea/bristolbay/recordisplay.cfm?deid=182065</a>; and
  - o a reviewer noted "concern" with "the lack of quantitative information on number of fish collected, by species, in each reach/site, in each year, by each sampling method[,]" id.;
- Groundwater as Essential Salmon Habitat in Nushagak and Kvichak Headwaters: Issues Relative to Mining (Woody and Higman 2011).
  - o The report provided "a good review of literature on the relationships between groundwater and surface water flow in small stream systems and the possible ecological benefits of groundwater upwelling for fish," but "the conclusions in

this report . . . are not supported by the information provided. This report strays from the purpose as outlined in the title to a series of hypothetical and often random statements about mining impacts, concluding that a specific development, the Pebble Prospect, has the potential to 'significantly impact' fish without providing in this report data or information on the mine development plan, locations of specific mine facilities, mitigation measures to be employed, and many other unknowns." *Id.* at 16.

EPA also received public comments that raised concern with the perceived bias of the selected reports. *See*, *e.g.*, EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 4-5, 30, 33-41 (2014), *available at* <a href="http://www.epa.gov/ncea/pdfs/bristolbay/EPAs%20Response%20to%20Public%20Comments\_2ndERD\_Apr2013.pdf">http://www.epa.gov/ncea/pdfs/bristolbay/EPAs%20Response%20to%20Public%20Comments\_2ndERD\_Apr2013.pdf</a>.

- <sup>360</sup> EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 40-41 (2014).
- <sup>361</sup> An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska, 78 Fed. Reg. 25,266 (Apr. 30, 2013).
- <sup>362</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Michael Geraghty, Attorney General, State of Alaska (June 3, 2013), at 1.
- <sup>363</sup> An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska,78 Fed. Reg. 34,093-34,095 (June 6, 2013) (extending comment period); Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Michael Geraghty, Attorney General, State of Alaska (June 3, 2013).
- <sup>364</sup> Parkin Declaration, note 167 above, at ¶ 39.
- <sup>365</sup> See EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 528 (2014). "Fortytwo of these campaigns, generating over 634,000 letters or signatures, requested EPA take action to protect Bristol Bay. Twenty-six campaigns, generating over 240,000 letters or signatures, were not supportive of EPA action. Two campaigns provide no clear opinion." *Id.* at 2. Of the 42 campaigns supporting EPA action to protect the watershed, 13 campaigns generated approximately 90% of the pro-EPA-action public comments: NRDC (266,014 comments); World Wildlife Fund (36,392 comments); Earthworks (46,557 comments); National Parks Conservation Association (29,503 comments); Sierra Club (34,642 comments); American Rivers (7,540); Pew Charitable Trusts (44,657 comments); Causes.org (7,545 comments); Greenpeace (11,014 comments); VoteVets.org (16,572 comments); National Council of Churches (16,887 comments); and Earthjustice (32,628 comments). *Id.* at Appendix 1. One campaign generated approximately 95% of the mass-mailing comments opposed to the BBWA and EPA action: Resourceful Earth (226,606 comments). *Id.*

The following are summaries of selected stakeholders' comments on the second assessment draft:

The United Tribes of Bristol Bay's Comments on the Second Assessment Draft: The United Tribes of Bristol Bay, a consortium of Bristol Bay tribal governments formed in 2013, submitted comments on the second BBWA draft. See United Tribes of Bristol Bay, Comments of the United Tribes of Bristol Bay on the U.S. Environmental Protection Agency's:

ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 2 n.1 (2013), available at <a href="http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5275">http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5275</a>; see also About Us, UNITED TRIBES OF BRISTOL BAY, <a href="http://www.utbb.org.php53-7.dfw1-2.websitetestlink.com/about-us/">http://www.utbb.org.php53-7.dfw1-2.websitetestlink.com/about-us/</a> (last visited Sept. 19, 2015). At the time of its submission, the United Tribes of Bristol Bay's membership included the Petitioning Tribes. The Petitioning Tribes' attorney, Geoffrey Parker, submitted comments on the second BBWA draft in his individual capacity on June 27, 2013. See Letter from Geoffrey Y. Parker, Esq., to EPA Office of Environmental Information, and Dennis McLerran, Regional Administrator, EPA Region 10, (June 27, 2013), available at <a href="http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5615">http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5615</a>.

The United Tribes of Bristol Bay opined that the BBWA "effectively details the unique nature of the salmon-based subsistence culture practiced" by Alaska Natives residing in the watershed. *Id.* In particular, the United Tribes of Bristol Bay commended EPA for the "thoroughness" of its work, which contrary to "traditional employment reports [that] show a high level of unemployed residents in the region" explains that those who practice a subsistence way of life are engaged in "year-round, full time work." *Id.* at 4. The United Tribes of Bristol Bay added that the report "confirms what many [United Tribes of Bristol Bay] members already suspected—the Pebble deposit is so large, and will require so much infrastructure, that its development could serve as the impetus for a region wide mining district." *Id.* at 7. The United Tribes of Bristol Bay concluded that the BBWA is "based on the leading available science, and incorporates the traditional ecological knowledge that only Bristol Bay's Native people can provide," and called upon EPA to "utilize its full authority under the Clean Water Act and protect the subsistence resources of Bristol Bay from large-scale hard rock mining." *Id.* at 9-10.

BBNC's Comments on the Second Assessment Draft: On June 28, 2013, BBNC supplied EPA with comments. Bristol Bay Native Corporation, Comments of Bristol Bay Native Corporation on the Second External Review Draft of the Bristol Bay Watershed Assessment iii (2013), available at <a href="http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5438">http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5438</a>. BBNC concluded:

[t]he Revised Assessment is founded on a thorough review of existing literature on the fishery and water resources of Bristol Bay, takes local knowledge of those resources into account, and includes a solid assessment of the risks posed to those resources by potential large-scale mining in the region. EPA has greatly strengthened and clarified the science and estimation of risks throughout the Revised Assessment, and EPA's robust peer review and public comment processes support these strong scientific findings. BBNC respectfully urges EPA to finalize the assessment without delay so that it can be relied on by the agency decisionmakers, stakeholders, and the general public as a valuable information resource and as a guide in future federal, State, and local decision-making processes affecting the waters, fishery resources, and Alaska Native cultures of Bristol Bay.

Id. at 16-17.

NRDC's Comments on the Second Assessment Draft: On June 28, 2013, NRDC submitted its comments. Natural Resources Defense Council, Comments on Behalf of the Natural Resources Defense Council on the U.S. Environmental Protection Agency Second Draft Bristol Bay Watershed Assessment (2013). NRDC highlighted the significance of the watershed and remarked that "[i]f ever there were a case for using this power it is the case of the Pebble Mine or any similar large-scale mine proposed to be located at the headwaters of Bristol Bay . . . ." Id. at 3.

NRDC commented that the revised assessment "thoroughly addresses the questions raised by the peer review panel, stakeholders, and members of the public" and reflects "extensive input" made possible through "open access and communication." *Id.* at 11. NRDC drew specific attention to enhancements EPA made to the draft assessment following the comment period and peer review of the first draft. *Id.* at 13. NRDC regarded the Pebble Partnership's claims that effective mitigation strategies were available as "scientifically unfounded" and "mere fantasy." *Id.* at 16-21. NRDC addressed the Pebble Partnership's criticism of EPA for utilizing the Wardrop Report as a basis for elements of the hypothetical mining scenarios, noting that the Partnership had defended the "proposed design and specifications" contained in the Wardrop Report as "feasible and permittable." *Id.* at 29-30.

The State of Alaska's Comments on the Second Assessment Draft: On June 28, 2013, the Attorney General of Alaska and the Commissioner of the ADNR co-signed a letter to Acting Administrator Perciasepe and Regional Administrator McLerran. The letter summarized the "key points from the State's previous technical comments on the first draft of the Assessment," which in the State's view had not been adequately addressed in the second BBWA draft. Letter from Daniel Sullivan, Commissioner, ADNR, and Michael Geraghty, Attorney General, State of Alaska, to Bob Perciasepe, Acting Administrator, EPA and Dennis McLerran, Regional Administrator, EPA Region 10 (June 28, 2013), at 6-15. The State claimed that EPA's reliance on the Wardrop Report in developing the BBWA's hypothetical scenarios was "scientifically and technically unjustifiable" because the Wardrop Report was "not a mine plan and would not be a principal support document for state agencies to review for any proposed Pebble mine." *Id.* at 7-8. The State also chastised EPA for "not adequately describ[ing] the measures that the State and federal permitting agencies would require before a mine could be developed in the Bristol Bay area nor the mitigation effect of these measures in the evaluation of environmental risk and impact." *Id.* at 9.

The State reiterated its concern that the BBWA discusses "the economic benefits derived from fish resources, but not from the mineral resources in the study area[.]" *Id.* at 11; *see* EPA, RESPONSE TO PEER REVIEW COMMENTS ON THE MAY 2012 AND APRIL 2013 DRAFTS OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY 384 (2014) ("We believe that the level of discussion of this issue is appropriate, considering that the assessment is not an economic cost/benefit analysis. We would expect that a full evaluation of any future mining permit applications and subsequent National Environmental Policy Act Environmental Impact Statement would consider the costs and benefits of employment opportunities related to large-scale mining."). The State acknowledged the effort EPA put into addressing the scale of the project area but continued to express concern with "predicting impacts" from mining in one part of an ecosystem the size of West Virginia. Letter from Daniel Sullivan, Commissioner, ADNR, and Michael Geraghty, Attorney General, State of Alaska, to

Bob Perciasepe, Acting Administrator, EPA and Dennis McLerran, Regional Administrator, EPA Region 10 (June 28, 2013), at 15.

Other Alaskan officials defended EPA's watershed assessment. For example, State Representative Bryce Edgmon, whose district includes the Pebble Deposit Area, urged EPA to "continue to give serious consideration to calls to protect this extraordinary environment." Letter from Rep. Bryce Edgmon, Alaska House of Representatives, to Office of Environmental Information (May 30, 2013), *available at* <a href="http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5058">http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5058</a>. He added:

I would also like to commend EPA for the painstaking work it carried out in the field. The agency consulted regularly and in detail with federal, state, and tribal stakeholders. The public meetings EPA held in several locations in the region were well organized and informative and showed consideration for the many points of view of watershed residents.

Id.; see EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 3 (2014); Representative Bryce Edgmon, HOUSEMAJORITY.ORG, <a href="http://www.housemajority.org/members/edgmon/">http://www.housemajority.org/members/edgmon/</a> (last visited Sept. 7, 2015). Former State Representative now State Senator Mia Costello, who represents portions of Anchorage, offered an opposing view of EPA's assessment:

I remain deeply concerned and discouraged by this assessment. This assessment should not have been conducted at all until the appropriate time during the state and federal permitting process of a specific project. The hypothetical mining scenario used by the EPA in this assessment fails to meet basic U.S. environmental and engineering standards. The State of Alaska would never permit this hypothetical mine and a company would be foolish to invest in its proposal. This assessment lays the groundwork to bar twenty-two thousand square miles of Alaska from mining development, based on an assessment of an implausible and untenable scenario.

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Any development project in Alaska has a right to submit applications for permitting. Alaska's permitting process is in place to ensure projects are designed, operated, and reclaimed in a manner consistent with the public interest; if a project does not meet these requirements, it is not permitted. To preemptively stop development of any kind before any state or federal agency considers the merits of that project is an affront to Alaska's permitting process and those doing business in the state.

Letter from Rep. Mia Costello, Alaska House of Representatives, to Bob Perciasepe, Acting Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (June 28, 2013), at 1-2, available at <a href="http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5814">http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5814</a>; see also EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF

AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 7, 119 (2014).

U.S. Congressional Comments on the Second Assessment Draft: Members of the United States Congress also supplied comments to EPA in response to the second BBWA draft. U.S. Representatives from New England states, acting in response to concerns raised by local commercial fishermen who also "reportedly hold commercial fishing permits in Bristol Bay," urged EPA to "complete and publicly release a final Watershed Assessment for Bristol Bay prior to the start of Alaska's salmon fishery season this summer." See Letter from U.S. Representatives John F. Tierney, William R. Keating, Edward J. Markey, and Chellie Pingree to Perciasepe, Acting Administrator, **EPA** (May 2013), available 28, http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-7353. Other U.S. Representatives asked President Obama to "move quickly to protect Bristol Bay from any open pit mining that would threaten the Pacific region's fishing economy," citing a report by the Institute of Social and Economic Research - University of Alaska addressing the economic contributions of the watershed's commercial salmon fishery to Alaska, Washington, Oregon, and See Letter from Representatives Earl Blumenauer, Suzanne Bonamici, Suzan DelBene, Peter DeFazio, Denny Heck, Derek Kilmer, Jim McDermott, Kurt Schrader, and Adam President Barack Obama, (June Smith, 11. 2013), available http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-7355.

Several U.S. Senators also called the Institute of Social and Economic Research – University of Alaska report to the President's attention, noting the number of jobs the report linked to the commercial fishery in Bristol Bay, Alaska, demonstrating it "is an integral component of the broader Alaska and Pacific Northwest seafood industry." *See* Letter from U.S. Senators Maria Cantwell, Patty Murray, Jeff Merkley, Dianne Feinstein, and Barbara Boxer to President Barack Obama (June 10, 2013), at 2, available at <a href="http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5815">http://www.regulations.gov/#!documentDetail;D=EPA-HQ-ORD-2013-0189-5815</a>. They voiced their support of a "valid, sound science based approach to ensuring that Bristol Bay salmon are safeguarded" and asked the President to "make staff from both the Council on Environmental Quality and the Department of Commerce available to [their] staff to discuss the implications of this economic report, and how these two agencies, specifically, are working with the EPA to protect our maritime economies." *Id.; see also* EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska* 110 (2014).

The Pebble Partnership's Comments on the Second Assessment Draft: On June 28, 2013, the Pebble Partnership (again including Northern Dynasty) provided EPA with comments. See Letter from John Shively, CEO, Pebble Partnership, to EPA's Office of Environmental Information (June 28, 2013) [hereinafter Partnership Comment Letter]; Letter from John Shively, CEO, Pebble Partnership, to EPA's Office of Environmental Information (June 28, 2013) (submitting IHS Global Insight report The Economic and Employment Contributions of a Conceptual Pebble Mine to the Alaska and United States Economies) [hereinafter Partnership IHS Letter]; Letter from John Shively, CEO, Pebble Partnership, to EPA's Office of Environmental Information (June 28, 2013) (submitting comments of scientific and technical experts) [hereinafter Partnership Expert Letter]; Letter from Ron Thiessen, CEO, Northern Dynasty Minerals Ltd., to Bob Perciasepe, Acting Administrator, EPA (May 30, 2013).

The Pebble Partnership stated that "[u]ntil a permit has been sought, the mining practices that will be employed, the impact minimization measures that will be required, and the compensatory mitigation plan that will be implemented are all unknown." Partnership Comment Letter, above, at 5. The Pebble Partnership further asserted that "[w]ithout this information, the risk scenarios are based on guesswork. If the risk scenarios are guesswork, so is the impact analysis." *Id.* The Partnership again urged EPA to withhold judgment until a permit application was filed and an environmental impact statement was prepared. *Id.* 

As an adjunct to its comments, the Pebble Partnership submitted a report prepared by IHS Global Insight which addressed the potential economic benefits of mining operations. Partnership IHS Letter, above. The following were among the key economic points in the submission:

- The potential to support nearly 5,000 construction jobs and nearly 3,000 operating jobs in Alaska;
- The expectation that about 75% of on-site jobs would be filled by Alaskans who would be paid over \$100,000 per year on average;
- The potential for the project to support an additional 12,000 jobs in the Lower 48;
- Annual contribution to the state through taxes and royalties between \$136–180 million;
- Annual contribution to the local borough of \$29–33 million; and
- A forecasted operating budget of \$1 billion annually.

Id. at 2; see also id. at Attachment, pp. iii-vi.

The Pebble Partnership also submitted comments prepared by the scientific and technical consultants it had retained to evaluate the first draft BBWA. Partnership Expert Letter, above; Letter from Ron Thiessen, CEO, Northern Dynasty Minerals Ltd., to Bob Perciasepe, Acting Administrator, EPA (May 30, 2013). The scientific and engineering concerns raised by the Pebble Partnership and its consultants in response to the second BBWA draft included:

- The BBWA draft "continues to assume that a mine would be developed that does not meet State and Federal requirements for environmental protection[.]" Partnership Expert Letter, above, at Attachment 1, p. 1.
- The information presented in the BBWA purportedly did not meet federal data quality standards. Partnership Expert Letter, above, at Attachment 1, at Attachment A, p. 3. A Pebble Partnership consultant expressed that the federal data quality act requires EPA to: (1) perform an "independent reanalysis of the original or supporting data using the same methods to generate similar analytical results, including documentation of methods and identification of data sources;" (2) use the "best available science;" and (3) prepare "an objective document and analysis," which EPA did not do. *Id*.
- The Pebble Partnership criticized EPA's evaluation of compensatory mitigation. *See* Partnership Expert Letter, above, at Attachment 1, p.1 (characterizing the new content regarding compensatory mitigation as "qualitative and wholly inadequate, particularly since the assessment did not incorporate measures that are reasonably assured to be included into a project"); Partnership Expert Letter, above, at Attachment 4, pp. 2-4 (chastising EPA for acknowledging that "a complete evaluation [of compensatory

mitigation] is considered outside the scope of the assessment," yet inferring that mitigation would not be effective in the watershed).

- The BBWA allegedly failed to quantify effects on the fishery from mining in the Bristol Bay watershed, to relate the effects of mining in the context of that spatial scale, or to better utilize site-specific data contained in the EBD. Partnership Expert Letter, above, at Attachment 2, p. 4 (the BBWA references the entirety of the watershed "in characterizing the importance of the fishery and other resources of the watershed, but no impacts [of mining] are discussed at this scale."); Letter from Ron Thiessen, CEO, Northern Dynasty Minerals Ltd., to Bob Perciasepe, Acting Administrator, EPA (May 30, 2013), at Attachment A, p. 2, Attachment D, pp. 12-14.
- The Partnership criticized EPA's assumption that all surplus waters from its hypothetical mine would "flow into two of three nearby streams, while leaving the third (the one with the highest fish values) devoid of any make-up water." Letter from Ron Thiessen, CEO, Northern Dynasty Minerals Ltd., to Bob Perciasepe, Acting Administrator, EPA (May 30, 2013), at Attachment A, p. 3 ("No rationale is provided for this approach, and it is not consistent with what a reasonable mine developer would in fact do.").
- The Pebble Partnership contended that EPA's water treatment plant design "overlooks fundamental design considerations for modern water treatment plants that provide operators with the management tools necessary to address loss of power or other malfunctions for extended periods of time without environmental harm." *Id.* at Attachment A, p. 4.

<sup>&</sup>lt;sup>367</sup> See EPA, RESPONSE TO PUBLIC COMMENTS ON THE MAY 2012 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 1 (2014); EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 1-2 (2014).

EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 13 (2014). Responding to various criticisms touching upon the failure to quantify the risks that mining poses to salmon, EPA explained that "[t]he assessment endpoints include salmon abundance, productivity, and diversity. The comment is correct that habitat is not always a complete measure of fish abundance, productivity and diversity—but habitat is essential . . . . Many of the pathways identified cannot be quantitatively linked to salmon endpoints, given the available data, without making unsupportable assumptions. Given these limitations, and given that salmon abundance, productivity and diversity inevitably depend on the availability of habitat, we believe that habitat is an appropriate surrogate for evaluating impacts to these endpoints." *Id.* at 442.

<sup>&</sup>lt;sup>369</sup> *Id.* at 119.

<sup>&</sup>lt;sup>370</sup> *Id*. at 193.

<sup>&</sup>lt;sup>371</sup> *Id.* at 495.

<sup>&</sup>lt;sup>372</sup> *Id.* at 130-31.

EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 11 (2014).

ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA 341 (2013). Northern Dynasty noted that revision of the draft BBWA resulted in a reorganized document that nearly doubled in length and questioned why EPA restricted the review panel to evaluating how well EPA had responded to their concerns with the first draft instead of starting the peer review process anew. *See* Letter from Ron Thiessen, CEO, Northern Dynasty Minerals Ltd., to Bob Perciasepe, Acting Administrator, EPA (May 30, 2013); *id.* at Attachment C, p. 2. Dr. Michael Kavanaugh, an environmental engineer retained by the Pebble Partnership, compared the second review process to the criteria established by EPA and other federal agencies and found that "the 2013 Assessment fails to meet those criteria on several accounts." Letter from Michael Kavanaugh, Senior Principal, Geosyntec Consultants, to Rep. Paul Broun, United States House of Representatives (July 29, 2013), at 3. In contrast, he found that the peer review for the 2012 Assessment "met most of the criteria." *Id.* 

EPA has completed three watershed ecological risk assessments in the last 15 years including Waquoit Bay, Massachusetts; Middle Snake River, Idaho; and Clinch and Powell Valley, Virginia. Watershed and Other Place-Based Risk Assessments, EPA (Jan. 11, 2005), <a href="http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=23734">http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=23734</a>). In each of these cases the assessment had taken approximately ten years or more to complete, as opposed to the three years taken to complete the BBWA. EPA, EPA/600/R-01/050, CLINCH AND POWELL VALLEY WATERSHED ECOLOGICAL RISK ASSESSMENT 3-3 (2002); EPA, EPA/600/R-01/017, ECOLOGICAL RISK ASSESSMENT FOR THE MIDDLE SNAKE RIVER, IDAHO xi (2001); EPA, EPA/600/R02/079, Waquoit Bay Watershed ECOLOGICAL RISK ASSESSMENT: THE EFFECT OF LAND-DERIVED NITROGEN LOADS ON ESTUARINE EUTROPHICATION xii (2002).

<sup>&</sup>lt;sup>375</sup> See BBWA, note 50 above, at 1-7.

<sup>&</sup>lt;sup>376</sup> EPA's Bristol Bay Watershed Assessment – A Factual Review of a Hypothetical Scenario: Before the H. Comm. on Oversight and H. Comm. on Science, Space, and Technology, 113th Cong. 46 (2013), available at <a href="http://www.gpo.gov/fdsys/pkg/CHRG-113hhrg82225">http://www.gpo.gov/fdsys/pkg/CHRG-113hhrg82225</a>.html/CHRG-113hhrg82225.htm.

<sup>&</sup>lt;sup>377</sup> *Id.* at 7.

<sup>&</sup>lt;sup>378</sup> *Id.* at 10.

<sup>&</sup>lt;sup>379</sup> An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska, 79 Fed. Reg. 3369-3370 (Jan. 21, 2014).

<sup>&</sup>lt;sup>380</sup> BBWA, note 50 above, at xxvi.-xxviii.

<sup>&</sup>lt;sup>381</sup> Compare BBWA, note 50 above, at ES-1 with Press Release, EPA, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011) ("EPA's assessment is not limited to examining the effects of hard-rock mining projects, but will consider the effects of large-scale development in general.").

BBWA, note 50 above, at ES-1, 1-8. An ecological risk assessment is "a scientific process used to determine whether exposure to one or more stressors may result in adverse ecological effects, the findings of which are used to inform environmental decision-making." *See id.* at 1-2. An ecological risk assessment, while lacking the depth or thoroughness of an Environmental Impact Statement, is nonetheless governed by specific EPA guidelines that set forth a process to identify and quantify risks through a three-phase process. *See* EPA, EPA/630/R-95/002F,

GUIDELINES FOR ECOLOGICAL RISK ASSESSMENT (1998); *Ecological Risk Assessment*, EPA (May 08, 2013), <a href="http://www.epa.gov/risk\_assessment/ecological-risk.htm">http://www.epa.gov/risk\_assessment/ecological-risk.htm</a>. These three phases involve (1) Problem Formulation: defining the assessment endpoints and subject of investigation; (2) Analysis: determination of the type and levels of exposure and likelihood of adverse effects; and (3) Risk Characterization: the estimation of the risk posed based on the results of Phase 2 analysis. *Id.* According to EPA, the resulting ecological risk assessments can then "be used to predict the likelihood of future effects (prospective) or evaluate the likelihood that effects are caused by past exposure to stressors (retrospective)." *Id.* 

<sup>&</sup>lt;sup>383</sup> BBWA, note 50 above, at ES-1, 1-2.

<sup>&</sup>lt;sup>384</sup> *Id.* at ES-1 through ES-2; and 1-2.

<sup>&</sup>lt;sup>385</sup> *Id.* at 1-3.

<sup>&</sup>lt;sup>386</sup> *Id.* at ES-2, ES-4, ES-10, 1-3 through 1-4, and 2-3.

<sup>&</sup>lt;sup>387</sup> *Id.* at ES-4 through ES-5, ES-9; *see also id.* at 2-5 ("In this assessment, we do not consider all potential sources of risk associated with the development of large-scale mining in the Bristol Bay watershed, all the stressors that may result from these sources, and all the endpoints that may be affected. Rather, we focus on a more limited set of sources, stressors, and endpoints based on stakeholder concerns and potential decision-maker needs."). The BBWA did note that revenues from a potential mine have been estimated to be between \$300 and \$500 billion, and that more than 2,000 and 1,000 jobs could be created during construction and operation, respectively. *Id.* at ES-9, 1-2.

<sup>&</sup>lt;sup>388</sup> Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 2.

<sup>&</sup>lt;sup>389</sup> *Id.* at 3.

<sup>&</sup>lt;sup>390</sup> *Id.* at 12.

<sup>&</sup>lt;sup>391</sup> BBWA, note 50 above, at ES-10, 6-20.

<sup>&</sup>lt;sup>392</sup> See EPA, Response to Public Comments on the May 2012 Draft of An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska 72 (2014).

<sup>&</sup>lt;sup>393</sup> EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 11, 13, 18, 24, 32, 40, 119, 125, 129, 135, 139, 143, 177, 185, 188, 239, 246, 371, 381, 386, 404, 442, 537, 541, 543, 545, 546, 547 (2014); *see also* WARDROP REPORT, note 72 above, at 4, 58, 514.

<sup>&</sup>lt;sup>394</sup> The first section of the Wardrop Report states that the information it contains is "preliminary" and that the "Pebble Partnership continues to undertake detailed engineering studies and project planning toward the completion of a Prefeasibility Study for the Pebble Project . . . ." WARDROP REPORT, note 72 above, at 1. Elsewhere, the Wardrop Report states that "the project description that the Pebble Partnership ultimately elects to submit for permitting under NEPA is likely to differ from the development cases presented in this document." *Id.* at 471.

<sup>&</sup>lt;sup>395</sup> EPA also did not consult Jason Quigley to ensure the accuracy of its use of his work. Mr. Quigley learned that EPA cited his work in Appendix J (addressing compensatory mitigation) following publication of the BBWA. Mr. Quigley advised EPA that the BBWA

authors "cited the key findings of [his] work in a manner that is not fully accurate in order to bolster EPA's argument that there are 'significant challenges regarding the potential efficacy, applicability and sustainability of aquatic habitat enhancement approaches." Letter from Jason Quigley, Hunter Dickenson, Inc., to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 28, 2014), at 1. He elaborated that:

[f]or clarity, the results from our research were mixed, yet citations in EPA's Assessment give the impression that habitat compensation cannot be successful. The studies I conducted into the effectiveness of aquatic habitat enhancement projects in Canada (Harper and Quigley 2005; Quigley and Harper 2006) did not conclude these programs were an ineffective means to compensate for the unavoidable effects of development activities on aquatic habitat. Rather the research program summarized in the series of articles evaluated Canada's performance in achieving 'no net loss' of fish habitat productivity to build on successes and identify areas for improvement.

*Id.* EPA subsequently disclosed Mr. Quigley's objection in the Proposed Determination and acknowledged that his letter "notes that compensation success has improved since his earlier studies," but EPA faulted him for failing to include "examples of such documented success." PROPOSED DETERMINATION, note 9 above, at 4-60 n.48.

EPA did contact some individuals whose work it relied upon in the BBWA. For instance, Dr. Daniel Schindler of the University of Washington School of Aquatic and Fishery Sciences advanced the concept of a "portfolio effect" as a way to describe and understand salmon habitat dynamics and the effects of population and life history diversity of salmon on their ecosystems. Daniel E. Schindler, *Population Diversity and the Portfolio Effect in an Exploited Species*, 465 NATURE 609, 609-12 (2010). A Pebble Partnership consultant challenged EPA's reliance on the "portfolio effect" in connection with its discussion of compensatory mitigation and conclusion that mitigation opportunities outside of the watersheds that surround the Pebble Deposit Area may not "address impacts to the portfolio effect from losses in the impacted watersheds." EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 484-85 (2014); *see* BBWA, note 50 above, at app. J, at 9. To respond to the technical comment, EPA "sought and received the opinion of the lead author of Schindler et al. (2010), Dr. Daniel Schindler." EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 484-85 (2014).

<sup>&</sup>lt;sup>396</sup> BBWA, note 50 above, at 1-3.

<sup>&</sup>lt;sup>397</sup> See BBWA, note 50 above, at 6-36 through 6-42.

<sup>&</sup>lt;sup>398</sup> *Id.* at ES-14 through ES-26, 8-1 through 13-35.

<sup>&</sup>lt;sup>399</sup> *Id.* at ES-14, 7-16, 7-19.

<sup>&</sup>lt;sup>400</sup> *Id*.

<sup>&</sup>lt;sup>401</sup> *Id.* at ES-14, 14-2.

<sup>&</sup>lt;sup>402</sup> *Id.* at ES-15, 8-54.

<sup>&</sup>lt;sup>403</sup> BBWA, note 50 above, at 8-54. The Pebble Partnership has claimed that the technology it would employ would capture over 99% of such runoff and leachates. That claim, of course, has not been substantiated or disproven through a permit application review process.

<sup>&</sup>lt;sup>404</sup> *Id.* at ES-16, 8-15.

<sup>&</sup>lt;sup>405</sup> *Id.* at ES-17, 14-5 through 14-6.

<sup>&</sup>lt;sup>406</sup> *Id.* at ES-22, 9-8.

<sup>&</sup>lt;sup>407</sup> *Id.* at ES-24, 9-7, 9-24 to 9-25.

<sup>&</sup>lt;sup>408</sup> *Id.* at ES-24 through ES-25, 11-9 through 11-10.

<sup>&</sup>lt;sup>409</sup> BBWA, note 50 above, at ES-25, 14-11 through 14-12.

<sup>&</sup>lt;sup>410</sup> *Id.* at app. J, p. 2.

<sup>&</sup>lt;sup>411</sup> *Id.* at app. J, p. 6.

<sup>&</sup>lt;sup>412</sup> Memorandum from Robert H. Wayland, III, Director, Office of Wetlands, Oceans, and Watersheds, EPA, and Michael L. Davis, Assistant for Regulatory Affairs, Office of the Assistant Secretary of the Army (Civil Works), Department of the Army, to Alvin L. Ewing, Associate Regional Administrator, EPA Region 10, and Major General Stanley G. Genega, Director of Civil Works, the Corps (May 13, 1994), at Attachment 1, p. 3. This policy applies only to Alaska wetlands, not streams. BBWA, note 50 above, at app. J, p. 6.

<sup>&</sup>lt;sup>413</sup> BBWA, note 50 above, at app. J, p. 3.

<sup>&</sup>lt;sup>414</sup> *Id.* at ES-27; *see id.* at 6-3 ("We specify that all mine components would be developed using modern conventional design and technologies and operated under standard industry practices.").

<sup>&</sup>lt;sup>415</sup> *Id.* at ES-27; *see id.* at 4-8, Box 4-1 ("Many elements of our mine scenarios include mitigation measures and all are assumed to meet minimum regulatory requirements.").

<sup>&</sup>lt;sup>416</sup> See id. at app. J, p. 11; see also, e.g., Letter from Ron Thiessen, CEO, Northern Dynasty Minerals Ltd., to Bob Perciasepe, Acting Administrator, EPA (May 30, 2013), at Attachment D; Letter from Tom Collier, Esq., Steptoe & Johnson LLP, to EPA (July 23, 2012).

<sup>&</sup>lt;sup>417</sup> BBWA, note 50 above, at app. J, p. 38.

<sup>&</sup>lt;sup>418</sup> *Id.* at app. J, p. 2; EPA, RESPONSE TO PUBLIC COMMENTS ON THE APRIL 2013 DRAFT OF *AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY, ALASKA* 479 (2014).

What Are The Water Quality Concerns at Mines?, MININGFACTS.ORG, <a href="http://www.miningfacts.org/Environment/What-are-the-water-quality-concerns-at-mines-/">http://www.miningfacts.org/Environment/What-are-the-water-quality-concerns-at-mines-/</a> (last visited Sept. 8, 2015).

<sup>&</sup>lt;sup>420</sup> BBWA, note 50 above, at ES-29, 8-13.

<sup>&</sup>lt;sup>421</sup> *Id.* at 6-11.

<sup>&</sup>lt;sup>422</sup> *Id.* at 6-12 through 6-13.

<sup>&</sup>lt;sup>423</sup> *Id*.

Here [in the Proposed Determination] and throughout the multiple iterations of its Bristol Bay Assessment, EPA insists on referring to a "Preliminary Economic Assessment" study published by Northern Dynasty in 2011 as a "preliminary mine plan" for the Pebble Project. EPA has been notified on numerous occasions that information presented in Northern Dynasty's preliminary economic study is both out of date and incomplete (inasmuch as it does not provide detailed engineering design of key project features, environmental safeguards, operating protocols or compensatory mitigation). Nonetheless, EPA persists in characterizing Northern Dynasty's study as "a preliminary mine plan." Not only is this incorrect, but EPA's focus on Northern Dynasty's preliminary economic study appears to have constrained the Agency from evaluating a broad range of potential project design, facility siting and operating alternatives associated with developing the Pebble deposit.

THOMAS COLLIER, PEBBLE LIMITED PARTNERSHIP, COMMENTS OF THE PEBBLE LIMITED PARTNERSHIP ON EPA REGION 10'S PROPOSED DETERMINATION PURSUANT TO SECTION 404(C) OF THE CLEAN WATER ACT REGARDING THE PEBBLE DEPOSIT AREA, SOUTHWEST ALASKA 47-48 (2014).

<sup>&</sup>lt;sup>424</sup> See, e.g., WARDROP REPORT, note 72 above, at 354-59 and figs. 18.3.1 and 18.3.2. We note that the Wardrop Report, upon which EPA relied to develop its hypothetical mine scenarios, describes the additional control measures that the Pebble Partnership contended would be necessary to pass regulatory muster. *Id.* at figs. 18.3.1 (showing the grout curtain) and 18.3.2 (showing seepage ponds).

<sup>&</sup>lt;sup>425</sup> See BBWA, note 50 above, at 7-48, 7-52. The BBWA authors cite generally to the Wardrop Report for the proposition that water would be discharged into the North Fork Koktuli River and the South Fork Koktuli River; however, they do not cite any authority for their proposition that no water would be discharged into the Upper Talarik Creek. *Id.* at 7-48. Similarly, the BBWA authors do not cite any authority for the proposition that the water treatment plant "would discharge equally to both outfalls [the North Fork Koktuli River and the South Fork Koktuli River], creating a 50/50 volume split for treated flows on an annual basis . . . ." *Id.* at 7-52.

<sup>&</sup>lt;sup>426</sup> See id. at 7-35 through 7-40, 7-52 through 7-56, 7-59 through 7-60, figs. 7-14 through 7-16.

<sup>&</sup>lt;sup>427</sup> *Id*.

<sup>&</sup>lt;sup>428</sup> See id.

<sup>&</sup>lt;sup>429</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Thomas Collier, CEO, Pebble Partnership, Joe Balash, Commissioner, ADNR, and Col. Christopher Lestochi, Commander, the Corps' Alaska District (Feb. 28, 2014), at 1.

<sup>&</sup>lt;sup>430</sup> Bristol Bay, EPA, http://www2.epa.gov/bristolbay (last visited Sept. 6, 2015).

<sup>&</sup>lt;sup>431</sup> Press Release, EPA, EPA Moves to Protect Bristol Bay Fishery from Pebble Mine (Feb. 28, 2014). The Pebble Partnership objects to EPA's characterization of Northern Dynasty's preliminary economic study as a "preliminary mine plan," stating:

- <sup>437</sup> Letter from Col. Christopher Lestochi, Commander, the Corps' Alaska District, to Dennis McLerran, Regional Administrator, EPA Region 10 (Mar. 14, 2014), at 1.
- <sup>438</sup> Letter from Michael Geraghty, Attorney General, State of Alaska, to Gina McCarthy, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (Feb. 28, 2014), at 2. The State enumerated several "good cause" bases for the requested tolling or extension, including the lack of any permit application and the breadth and complexity of the watershed assessment upon which the Section 404(c) process was based. *Id*.
- <sup>439</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Michael Geraghty, Attorney General, State of Alaska (Mar. 13, 2014), at 1; Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Tom Collier, CEO, Pebble Partnership (Mar. 13, 2014), at 1.

- <sup>442</sup> *Id.*; Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 29, 2014).
- <sup>443</sup> Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 29, 2014), at 1.

<sup>&</sup>lt;sup>432</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Thomas Collier, CEO, Pebble Partnership, Joe Balash, Commissioner, ADNR, and Col. Christopher Lestochi, Commander, the Corps' Alaska District (Feb. 28, 2014), at 1.

<sup>&</sup>lt;sup>433</sup> *Id.* at 2.

<sup>&</sup>lt;sup>434</sup> *Id.* at 2, 3.

<sup>&</sup>lt;sup>435</sup> Press Release, EPA, EPA Moves to Protect Bristol Bay Fishery from Pebble Mine (Feb. 28, 2014).

<sup>&</sup>lt;sup>436</sup> *Id.*; see 40 C.F.R. § 231.3(a)(2) (2015); 33 C.F.R. § 325.8 (2015).

 $<sup>^{440}</sup>$  Id

<sup>&</sup>lt;sup>441</sup> Proposed Determination, note 9 above, at 2-11.

 $<sup>^{444}</sup>$  Id.

<sup>&</sup>lt;sup>445</sup> Letter from Thomas Collier, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Mar. 11, 2014), at 1.

<sup>&</sup>lt;sup>446</sup> *Id.* at 3.

<sup>&</sup>lt;sup>447</sup> Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Michael Geraghty, Attorney General, State of Alaska (Mar. 13, 2014), at 1; Letter from Dennis McLerran, Regional Administrator, EPA Region 10, to Tom Collier, CEO, Pebble Limited Partnership (Mar. 13, 2014), at 1.

<sup>&</sup>lt;sup>448</sup> Proposed Determination, note 9 above, at 2-11.

<sup>&</sup>lt;sup>449</sup> Letter from Tom Collier, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 29, 2014).

<sup>&</sup>lt;sup>450</sup> *Id.* at 1; see generally id. and referenced exhibits.

<sup>&</sup>lt;sup>451</sup> Proposed Determination, note 9 above, at 2-11.

<sup>&</sup>lt;sup>452</sup> *Id.* at ES-5, 2-14.

<sup>&</sup>lt;sup>453</sup> *Id*.

<sup>&</sup>lt;sup>454</sup> See generally Proposed Determination, note 9 above.

<sup>455</sup> Id. at ES-1, 1-2 ("EPA Region 10 is proposing to restrict the use of a defined area for specification as a disposal site because it has reason to believe that discharge of dredged or fill material into the area could result in unacceptable adverse effects on fishery areas."); see also Press Release, EPA, EPA Releases Proposal to Protect Bristol Bay, Alaska Fisheries From Pebble Mine (July Potential **Impacts** Posed bv 18. 2014), available http://yosemite.epa.gov/opa/admpress.nsf/d96f984dfb3ff7718525735900400c29/b52a95f5b3adef c185257d1900056758!opendocument.

<sup>&</sup>lt;sup>456</sup> *Id.* at 5-1 (emphasis in original).

<sup>&</sup>lt;sup>457</sup> PROPOSED DETERMINATION, note 9 above, at 5-1. EPA acknowledged that the adverse impacts are based on certain assumptions made in the BBWA and that the BBWA does not assess any specific mine proposal. *Id.* at 4-23 n.42 ("As with other impacts, actual flow modifications could vary substantially in magnitude, nature, and location from streamflows based on the BBA's assumptions. Modeling built on robust baseline data and confirmed with post-construction monitoring would be necessary for more precise determination of streamflow changes.").

<sup>&</sup>lt;sup>458</sup> *Id.* at 4-13.

<sup>&</sup>lt;sup>459</sup> *Id.* at ES-7, 4-58. EPA dismissed compensatory mitigation based on the belief that there is "little likelihood that human activity could improve upon the high-quality natural environment in the Bristol Bay watershed that nature has created[.]" *Id.* at ES-7, 2-13.

<sup>&</sup>lt;sup>460</sup> Proposed Determination, note 9 above, at 2-17, 4-1; see also 33 U.S.C.A. § 1344(c).

<sup>&</sup>lt;sup>461</sup> PROPOSED DETERMINATION, note 9 above, at 2-14 through 2-15.

<sup>&</sup>lt;sup>462</sup> *Id.* at 2-15.

<sup>&</sup>lt;sup>463</sup> *Id.* at ES-5, 1-2.

<sup>&</sup>lt;sup>464</sup> *Id.* at ES-3, fig. ES-3.

<sup>&</sup>lt;sup>465</sup> *Id.* at 2-18.

<sup>&</sup>lt;sup>466</sup> *Id.* at 2-16, 2-17, 4-4 n.35.

<sup>&</sup>lt;sup>467</sup> Proposed Determination to Restrict the Use of an Area as a Disposal Site; Pebble Deposit Area, Southwest Alaska, 79 Fed. Reg. 42,314 (2014); EPA Notice of Announcement to Extend the Period to Evaluate Public Comments Received on the Proposed Determination for the Pebble Deposit Area, Southwest Alaska, 79 Fed. Reg. 56,365 (2014).

<sup>&</sup>lt;sup>468</sup> Letter from Joe Balash, Commissioner, ADNR, to Dennis McLerran, Regional Administrator, EPA Region 10, (Aug. 1, 2014), at 1.

<sup>&</sup>lt;sup>469</sup> *Id.* at 1-2.

<sup>&</sup>lt;sup>470</sup> *Id.* at 1.

<sup>&</sup>lt;sup>471</sup> EPA Notice of Announcement to Extend the Period to Evaluate Public Comments Received on the Proposed Determination for the Pebble Deposit Area, Southwest Alaska, 79 Fed. Reg. 56,365 (2014).

- <sup>475</sup> *Id.* at 2. In particular, the State of Alaska alleged a number of deficiencies with the Proposed Determination, including:
  - "EPA's interpretation that it has authority to exercise its Section 404(c) veto review and issue a proposed determination in the absence of a permit application is not supported by the CWA and legislative history, and creates unnecessary constitutional and takings concerns;"
  - "EPA's interpretation of its Section 404(c) authority and its actions respecting the State's lands . . . infringes on State land use authority;"
  - "EPA's action conflicts with Alaska and federal law;"
  - "EPA's action undermines and violates the compact between Congress and the State in the Alaska Statehood Act and Cook Inlet Exchange, undermining the socio-economic purposes which those laws, and the CWA, preserved for State determinations;"
  - "Effects, mitigation, and compensatory mitigation analyses can only be legitimately applied in the context of reviewing an actual Section 404 permit application;" and
  - "The watershed assessment, and now the proposed determination which relies on the assessment, draw speculative conclusions about potential impacts from a hypothetical mine."

## Id. at 3-4.

<sup>&</sup>lt;sup>472</sup> Proposed Determination to Restrict the Use of an Area as a Disposal Site; Pebble Deposit Area, Southwest Alaska, 79 Fed. Reg. 42,314 (2014).

<sup>&</sup>lt;sup>473</sup> *Id*.

<sup>&</sup>lt;sup>474</sup> Letter from Michael Geraghty, Attorney General, State of Alaska; Joe Balash, Commissioner, ADNR; Larry Hartig, Commissioner, Alaska Department of Environmental Conservation; and Cora Campbell, Commissioner, Alaska Department of Fish and Game, to Gina McCarthy, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (Sept. 19, 2014), at 1.

<sup>&</sup>lt;sup>476</sup> *Id.* at 5; *see also id.* at 8 (reiterating that "Alaska Department of Fish and Game (ADF&G) has extensive experience in effective stream restoration projects in many other parts of the state").

<sup>&</sup>lt;sup>477</sup> *Id*. at 9.

<sup>&</sup>lt;sup>478</sup> *Id.* at 10.

<sup>&</sup>lt;sup>479</sup> Thomas Collier, Pebble Limited Partnership, Comments of the Pebble Limited Partnership on EPA Region 10's Proposed Determination Pursuant to Section 404(c) of the Clean Water Act Regarding the Pebble Deposit Area, Southwest Alaska 1 (2014).

<sup>&</sup>lt;sup>480</sup> *Id.* at 1-74.

Dennis McLerran, Letter to the Editor, *The EPA Is Right to Be Careful About Pebble Mine Plan*, WALL ST. J., May 22, 2015, *available at* <a href="http://www.wsj.com/articles/the-epa-is-right-to-be-careful-about-pebble-mine-plan-1432239867">http://www.wsj.com/articles/the-epa-is-right-to-be-careful-about-pebble-mine-plan-1432239867</a>. *See also* note 379 above and accompanying text for a discussion of the time it took EPA to complete the BBWA and other assessments.

The House Committee on Oversight and Government Reform is "Congress' chief investigative and oversight committee, and is granted broad jurisdiction because of the importance of effective, centralized oversight." U.S. HOUSE OF REPRESENTATIVES, COMMITTEE ON GOVERNMENT REFORM: BACKGROUND/HISTORY (May 20, 2006), *available at* https://web.archive.org/web/20060520153535/reform.house.gov/UploadedFiles/grchistory.pdf.

- <sup>484</sup> Barnini Chakraborty, *Ex-EPA Official Goes Off the Grid, Dodges Lawmakers' Inquiry into Alaska Mine Project*, FOXNEWS, June 12, 2014, *available at* <a href="http://www.foxnews.com/politics/2014/06/12/ex-epa-regulator-in-pebble-mine-controversy-dodges-multiple-requests-for/">http://www.foxnews.com/politics/2014/06/12/ex-epa-regulator-in-pebble-mine-controversy-dodges-multiple-requests-for/</a>.
- Phillip Swarts, *EPA Figure Tied to Alaska Mine Controversy Missing*, WASHINGTON TIMES, June 9, 2014, *available at* <a href="http://www.washingtontimes.com/news/2014/jun/9/epa-figure-tied-to-alaska-mine-controversy-missing/?page=all">http://www.washingtontimes.com/news/2014/jun/9/epa-figure-tied-to-alaska-mine-controversy-missing/?page=all</a>. On July 29, 2013, Representatives Issa and Jordan asked Mr. North to voluntarily appear for an interview. *Id.* On October 22, 2013, Mr. North responded that he had "no plans to be on the East Coast before the holidays." *Id.* In March 2014, the House Committee again asked Mr. North for a voluntary interview. *Id.* In response, Mr. North's lawyer advised that "he has decided to respectfully decline the committee's invitation for a voluntary transcribed interview." *Id.*
- <sup>486</sup> *Id.* As part of our review, we also attempted to communicate with Mr. North through his attorney. We did not receive a response. Our research suggests that he and his family have traveled abroad for an indeterminate period of time. *See* Jenny Neyman, *Full Phil EPA's North sets sail after eventful career helping launch Bristol Bay-Pebble Mine assessment*, THE REDOUBT REPORTER, July 17, 2013, *available at* <a href="https://redoubtreporter.wordpress.com/2013/07/17/full-phil-epas-north-sets-sail-after-eventful-career-helping-launch-bristol-bay-pebble-mine-assessment/">https://redoubtreporter.wordpress.com/2013/07/17/full-phil-epas-north-sets-sail-after-eventful-career-helping-launch-bristol-bay-pebble-mine-assessment/</a>; *Phillip and Amanda*, AUSSIE HOUSE SITTERS, <a href="http://www.aussiehousesitters.com.au/s/alaska-family?contact=1">https://www.aussiehousesitters.com.au/s/alaska-family?contact=1</a> (last visited Sept. 3, 2015).

We reviewed documents produced in response to Mr. North's attorney's FOIA request to EPA for "all documents provided by [EPA] to the U.S. House of Representatives Committee on Oversight and Government Reform as part of its investigation into the EPA's consideration and actions related to preliminary permitting for the Pebble Project . . . includ[ing], but not limited to any and all Agency communications from, to, or about Phil North[.]" Letter from John D. Clifford, Esq., Clifford & Garde, LLP, to EPA FOIA/Privacy Act Officer (Mar. 20, 2014), at 1.

<sup>&</sup>lt;sup>483</sup> Letter from Darrell Issa, Chairman, House Committee on Oversight and Government Reform, and Jim Jordan, Chairman, Subcommittee on Regulatory Affairs, Stimulus Oversight and Government Spending, to Lisa Jackson, Administrator, EPA (May 10, 2012).

<sup>&</sup>lt;sup>487</sup> See Press Release, Committee on Oversight and Government Reform, Issa Subpoenas EPA for Pebble Mine Documents (Mar 21, 2014), available at <a href="https://oversight.house.gov/release/issa-subpoenas-epa-pebble-mine-documents/">https://oversight.house.gov/release/issa-subpoenas-epa-pebble-mine-documents/</a>.

<sup>&</sup>lt;sup>488</sup> See Letter from John B. Ellis, Records Officer, EPA, to Paul M. Wester, Jr., Chief Records Officer, United States Government (June 24, 2014).

<sup>&</sup>lt;sup>489</sup> See Letter from Matthew Leopard, Acting Records Officer, EPA, to Paul M. Wester, Jr., Chief Records Officer, U.S. Government (Aug. 6, 2015), at 1 n.1; Letter from John B. Ellis, Records Officer, EPA, to Paul M. Wester, Jr., Chief Records Officer, United States Government (June 24, 2014); Letter from Lisa Castañon, Deputy Regional Counsel, EPA Region 10, to Billie Garde, Esq., Clifford & Garde, LLP (Aug. 6, 2015), at 1; Letter from Lisa Castañon, Deputy

Regional Counsel, EPA Region 10, to Patricia Palacios, Esq., Steptoe & Johnson, LLP (Aug. 6, 2015), at 1.

- <sup>490</sup> See Email from Phil North, EPA, to Sandra Halstead, Alan Henning, Christine Kelly, and Susan Skinner, all EPA (Sept. 14, 2010) ("I recently had the unpleasant experience of having my computer suddenly and irretrievable [sic] crash. . . . The bad news is that I had not backed anything up in about a year."); see Email from Phil North, EPA, to Michael Szerlog, EPA (Nov. 2, 2010) ("I made the original slide but lost it when my hard drive crashed.").
- <sup>491</sup> Letter from Sen. David Vitter, Ranking Member, Senate Committee on Environment and Public Works, and Sen. Roger Wicker, to Bob Perciasepe, Acting Administrator, EPA (Feb. 20, 2013). The Senate Committee on Environment and Public Works has oversight over "programs in five cabinet level departments and seven independent agencies, including . . . the Environmental Protection Agency[.]" *History and Recent Membership of the Committee on Environment and Public Works*, SENATE.GOV, <a href="http://www.epw.senate.gov/public/index.cfm/committee-history-and-membership">http://www.epw.senate.gov/public/index.cfm/committee-history-and-membership</a> (last visited Sept. 8, 2015).
- <sup>492</sup> Letter from Sen. David Vitter, Ranking Member, Senate Committee on Environment and Public Works, and Sen. Roger Wicker, to Bob Perciasepe, Acting Administrator, EPA (Feb. 20, 2013).
- <sup>493</sup> MINORITY STAFF OF S. COMM. ON ENVIRONMENT AND PUBLIC WORKS, 113TH CONG., A CALL FOR SUNSHINE: EPA'S FOIA AND FEDERAL RECORDS FAILURES UNCOVERED (Comm. Print 2013), *available at* <a href="http://www.epw.senate.gov/public/cache/files/5091690a-1c27-4e07-98aa-e4074a117dab/callforsunshineinepasfoiaandfederalrecordsfailuresuncovered.pdf">http://www.epw.senate.gov/public/cache/files/5091690a-1c27-4e07-98aa-e4074a117dab/callforsunshineinepasfoiaandfederalrecordsfailuresuncovered.pdf</a>.
- <sup>494</sup> Letter from Sen. David Vitter, Ranking Member, Senate Committee on Environment and Public Works, et al., to Gina McCarthy, Administrator, EPA (Sept. 2, 2014); Letter from Sen. David Vitter, Ranking Member, Senate Committee on Environment and Public Works, et al., to Frances Beinecke, President, NRDC (Sept. 2, 2014). See Press Release, Committee on Oversight and Government Reform, House Oversight, Senate EPW Launch Investigation Into **Improper NRDC** Influence Over **EPA** (Sept. 2, 2014), available https://oversight.house.gov/release/house-oversight-senate-epw-launch-investigation-impropernrdc-influence-epa. See also Email from Nancy Stoner, Deputy Assistant Administrator, EPA, to Joel Reynolds, NRDC (June 14, 2010) ("I am not supposed to set up meetings with NRDC staff, but can attend such a meeting if there are enough others in attendance. I am well and miss everyone at NRDC.").

<sup>&</sup>lt;sup>495</sup> David Goldston, *Sound and Fury: NRDC Emails Show Advocacy, not Collusion*, NRDC SWITCHBOARD (Dec. 10, 2014), <a href="http://switchboard.nrdc.org/blogs/dgoldston/sound">http://switchboard.nrdc.org/blogs/dgoldston/sound</a> and fury nrdc\_e-mails\_sh.html.

<sup>&</sup>lt;sup>496</sup> *Id*.

<sup>&</sup>lt;sup>497</sup> Memorandum from Patrick Gilbride, Director, Science, Research, and Management Integrity Evaluations, to Nancy Stoner, Acting Assistant Administrator, EPA Office of Water (May 2, 2014).

<sup>&</sup>lt;sup>498</sup> *Id*.

<sup>&</sup>lt;sup>499</sup> *Id*.

- <sup>504</sup> *Id.*; see Order dated Sept. 26, 2014, *Pebble Ltd. P'ship, et al. v. U.S. Envtl. Prot. Agency, et al.*, 3:14-cv-00097-HRH (D. Alaska dismissed Sept. 30, 2014).
- $^{505}$  See Pebble Ltd. P'ship, et al. v. U.S. Envtl. Prot. Agency, et al., No. 14-35845 (9th Cir. May 28, 2015).
- $^{506}$  See Docket, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, et al., 3:14-cv-00171-HRH (D. Alaska filed Sept 3, 2014).
- <sup>507</sup> See Order dated Nov. 25, 2014, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, et al., 3:14-cv-00171-HRH (D. Alaska filed Sept. 3, 2014).
- <sup>508</sup> See Order dated June 4, 2015, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, et al., 3:14-cv-00171-HRH (D. Alaska filed Sept. 3, 2014).
- <sup>509</sup> See Order dated Aug. 27, 2015, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, et al., 3:14-cv-00171-HRH (D. Alaska filed Sept. 3, 2014), at 2.

- <sup>511</sup> See Docket, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, 3:14-cv-00199-HRH (D. Alaska filed Oct. 14, 2014).
- Motion for Summary Judgment, *Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency*, 3:14-cv-00199-HRH (D. Alaska Apr. 17, 2015); Tentative Disposition, *Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency*, 3:14-cv-00199-HRH (D. Alaska Apr. 17, 2015).
- <sup>513</sup> See Order dated Aug. 31, 2015, Pebble Ltd. P'ship v. U.S. Envtl. Prot. Agency, 3:14-cv-00199-HRH (D. Alaska filed Oct. 14, 2014).
- <sup>514</sup> Whether EPA acted within the scope of its legal rights is the subject of current litigation and will be resolved in the appropriate forum. *See* Background Facts at Section X.E.

Manuel Quiñones, *Pebble Stokes OIG Probe of Alleged Collusion with Greens*, E&E PUBLISHING, LLC (May 21, 2015), <a href="http://www.eenews.net/stories/1060018975">http://www.eenews.net/stories/1060018975</a>.

<sup>&</sup>lt;sup>501</sup> See Management and Performance Oversight by the Office of Inspector General for the EPA and CSB: Hearing Before the Subcomm. on Superfund, Waste Management, and Regulatory Oversight of the S. Comm. on Env. and Public Works, 114th Cong. 5-6 (2015) (statement of Arthur A. Elkins Jr., Inspector General, EPA), available at <a href="http://www.epa.gov/oig/reports/2015/IG\_Written\_Testimony\_for\_Senate%20EPW%20Subcommittee\_Hearing\_04-14-15.pdf">http://www.epa.gov/oig/reports/2015/IG\_Written\_Testimony\_for\_Senate%20EPW%20Subcommittee\_Hearing\_04-14-15.pdf</a>.

<sup>&</sup>lt;sup>502</sup> See Docket, Pebble Ltd. P'ship, et al. v. U.S. Envtl. Prot. Agency, et al., 3:14-cv-00097-HRH (D. Alaska dismissed Sept. 30, 2014).

<sup>&</sup>lt;sup>503</sup> *Id*.

<sup>&</sup>lt;sup>510</sup> *Id.* at 3.

<sup>&</sup>lt;sup>515</sup> See Background Facts at pp. 14 & 100 nn.41-42.

 $<sup>^{516}</sup>$  See Background Facts at p. 14 & 100 n.43.

<sup>&</sup>lt;sup>517</sup> Options Paper, note 46 above, at 4; *see also* Discussion Matrix, note 43 above, at 1.

<sup>&</sup>lt;sup>518</sup> BBWA, note 50 above, at ES-10, 6-4.

<sup>&</sup>lt;sup>519</sup> See Letter from John Shively, CEO, Pebble Partnership, to Dennis McLerran, Regional Administrator, EPA Region 10 (Oct. 21, 2011); see also Background Facts at pp. 49, 61, 123 nn.306-10 & 141 n.394.

<sup>&</sup>lt;sup>520</sup> See Background Facts at pp. 59-60 & 141 nn.391-92.

<sup>&</sup>lt;sup>521</sup> EPA, RESPONSE TO PEER REVIEW COMMENTS ON THE MAY 2012 AND APRIL 2013 DRAFTS OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY 65 (2014).

<sup>&</sup>lt;sup>522</sup> See id. at 65-66.

<sup>&</sup>lt;sup>523</sup> *See* Background Facts at pp. 70-71 & 146 n.457.

<sup>&</sup>lt;sup>524</sup> EPA, RESPONSE TO PEER REVIEW COMMENTS ON THE MAY 2012 AND APRIL 2013 DRAFTS OF AN ASSESSMENT OF POTENTIAL MINING IMPACTS ON SALMON ECOSYSTEMS OF BRISTOL BAY. ALASKA 165 (2014), available at <a href="http://www.epa.gov/ncea/pdfs/bristolbay/EPAs%20Response%20to%20Peer%20Rev%20Comments.pdf">http://www.epa.gov/ncea/pdfs/bristolbay/EPAs%20Response%20to%20Peer%20Rev%20Comments.pdf</a>.

<sup>&</sup>lt;sup>525</sup> BBWA, note 50 above, at ES-4, 1-2 through 1-3.

<sup>&</sup>lt;sup>526</sup> *Id.* at ES-10, 6-4.

 $<sup>^{527}</sup>$  EPA, Response to Peer Review Comments on the May 2012 and April 2013 Drafts of An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay 114-15 (2014).

<sup>&</sup>lt;sup>528</sup> BBWA, note 50 above, at app. J, p. 2 (emphasis in the original).

<sup>&</sup>lt;sup>529</sup> *Id.* at 1-3.

<sup>&</sup>lt;sup>530</sup> *Id.* at ES-27; *see also id.* at 4-8, Box 4-1 ("Many elements of our mine scenarios include mitigation measures and all are assumed to meet minimum regulatory requirements.").

<sup>&</sup>lt;sup>531</sup> *Id.* at 1-3.

<sup>&</sup>lt;sup>532</sup> See Background Facts at Sections I.B. and I.D.

<sup>&</sup>lt;sup>533</sup> See Background Facts at Section I.B.

<sup>&</sup>lt;sup>534</sup> Background Facts at pp. 47 & 122 nn.293-94.

<sup>&</sup>lt;sup>535</sup> Background Facts at pp. 68 & 145 n.437.

<sup>&</sup>lt;sup>536</sup> See Letter from Sean Parnell, Governor, State of Alaska, to Lisa Jackson, Administrator, EPA (Sept. 21, 2010), at 2 ("State and federal agencies have yet to receive designs or permit applications for the Pebble Project, or any other major mine in the Bristol Bay area. Without a specific proposal, EPA cannot evaluate the potential impacts or risks from the project."); Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Richard Parkin, EPA (Aug. 8, 2011), at 1 ("Indeed, the State believes that if EPA deems a review under Section 404(c) of the Clean Water Act is needed, that review should be conducted in conjunction with a pending permit application where actual activities and potential disposal sites are clearly specified, not in the abstract as it will be in this assessment process."); Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Mar. 9, 2012), at 7 ("We also ask that EPA refrain from exercising its Section 404(c) authority until a Section 404 permit application has been submitted and other applicable

regulatory reviews are conducted."); Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 17, 2012), at 3 ("It is also my hope that EPA will reconsider its position regarding legal authority for its current actions, halt the assessment, and adequately address the significant legal concerns expressed in my March 9 letter."); Letter from Michael Geraghty, Attorney General, State of Alaska, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 11 ("We also ask that EPA refrain from considering the exercise of its Section 404(c) authority until a Section 404 permit application has been submitted, including a detailed project proposal, and after other applicable regulatory reviews are conducted."); Letter from Tom Crafford, Director, Office of Project Management and Permitting, ADNR, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (July 23, 2012), at 1, 12 (denouncing "any premature exercise of EPA's Clean Water Act Section 404(c) authority" and stating "[a]n assessment of environmental impacts of any proposed large mine or development project by the State and multiple federal agencies, including the Corps and EPA, would have much more scientific credibility within the context of an actual defined proposal"); Letter from Daniel Sullivan, Commissioner, ADNR, and Michael Geraghty, Attorney General, State of Alaska, to Bob Perciasepe, Acting Administrator, EPA and Dennis McLerran, Regional Administrator, EPA Region 10 (June 28, 2013), at 18 ("Once again, the State asks that EPA cease its work on the Assessment, and refrain from taking any 404(c) action until a Section 404 permit application has been submitted and other applicable state and federal regulatory reviews are conducted."); Letter from Michael Geraghty, Attorney General, State of Alaska, to Gina McCarthy, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (Feb. 28, 2014), at 2 ("Pursuant to 40 C.F.R. 231.8, good cause exists to toll this time period until permit applications for an actual mine project are submitted and thorough permit reviews by State and federal regulatory agencies are completed."); Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 29, 2014), at 9 ("Until then, EPA should refrain from attempting to exercise its Section 404(c) authority in the absence of a Section 404 permit application, and allow the Corps and the State to exercise their regulatory rights and responsibilities in the event applications for a mining project are ever submitted."); Letter from Michael Geraghty, Attorney General, State of Alaska, Joe Balash, Commissioner, ADNR, Larry Hartig, Commissioner, Alaska Department of Environmental Conservation, and Cora Campbell, Commissioner, Alaska Department of Fish and Game, to Gina McCarthy, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (Sept. 19, 2014), at 13 ("EPA should refrain from exercising its Section 404(c) authority unless and until there is a Section 404 permit application, the Corps, other federal regulatory agencies, and the State have exercised their regulatory rights and responsibilities in processing that application and EPA can otherwise make an informed decision.").

<sup>&</sup>lt;sup>537</sup> Letter from Michael Geraghty, Attorney General, State of Alaska, to Dennis McLerran, Regional Administrator, EPA Region 10 (Apr. 17, 2012).

<sup>&</sup>lt;sup>538</sup> See Background Facts, at pp. 50, 123 n.317 & 124 n.319.

<sup>&</sup>lt;sup>539</sup> See Background Facts, at pp. 50 & 124 nn.319-20.

<sup>&</sup>lt;sup>540</sup> See Background Facts, at pp. 51 & 124 nn.323-26.

<sup>&</sup>lt;sup>541</sup> Press Release, EPA, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011).

<sup>&</sup>lt;sup>542</sup> See Background Facts, at Sections IV.D and IV.G-H; Letter from six federally-recognized tribes, to Lisa Jackson, Administrator, EPA, and Dennis McLerran, Regional Administrator, EPA Region 10 (May 2, 2010), at 1.

<sup>&</sup>lt;sup>543</sup> See Background Facts, at Section IV.H; EPA, FY11 PROPOSED INVESTMENT: BRISTOL BAY 404(C).

 $<sup>^{544}</sup>$  See Background Facts, at pp. 38 & 118 nn.227-28.

<sup>&</sup>lt;sup>545</sup> See Background Facts, at pp. 46 & 121 nn.279-80.

<sup>&</sup>lt;sup>546</sup> See Background Facts, at Section III.C; Appendix C.

<sup>&</sup>lt;sup>547</sup> See Background Facts, at pp. 48 & 123 n.300.

<sup>&</sup>lt;sup>548</sup> PROPOSED DETERMINATION, note 9 above, at ES-1, 1-2 ("EPA Region 10 is proposing to restrict the use of a defined area for specification as a disposal site because it has reason to believe that discharge of dredged or fill material into the area could result in unacceptable adverse effects on fishery areas.").

<sup>&</sup>lt;sup>549</sup> Press Release, EPA, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011).

<sup>&</sup>lt;sup>550</sup> See Background Facts, at Sections IV.A, IV.C-H.

<sup>&</sup>lt;sup>551</sup> See Background Facts, at pp. 54-55 & 130 n.353.

<sup>&</sup>lt;sup>552</sup> See Background Facts at Section VII.B.

<sup>&</sup>lt;sup>553</sup> See Background Facts at Section X.A.

<sup>&</sup>lt;sup>554</sup> DISCUSSION MATRIX, note 43 above, at 1.

<sup>&</sup>lt;sup>555</sup> See Background Facts, at pp. 8, 14, 98 n.12, & 100 nn.41-42.



### **Timeline of Significant Events**

January 3, 1959	Alaska becomes a state.
December 2, 1970	President Nixon establishes EPA by Executive Order (Reorganization Plan Number 3).
December 18, 1971	Alaska Native Claims Settlement Act enacted.
October 18, 1972	Congress passes the Clean Water Act.
October 9, 1979	EPA promulgates regulations for exercising Section 404(c) authority.
September 13, 1984	The 1984 Bristol Bay Area Plan classifies 12 million acres of state-owned uplands and freshwater riverbeds, including the Pebble Deposit Area, jointly for public recreation and oil and gas or mineral uses.
1985 – 1997	Cominco America Inc. explores the Pebble Deposit Area for mineral development.
May 14, 1994	EPA and the Corps issue a memorandum providing mitigation guidance for Alaska.
2001	Northern Dynasty obtains an interest in the mineral claims that comprise the Pebble Deposit Area.
2003	EPA begins outreach to stakeholders regarding the potential development of a Pebble mine.
2004 – present	Northern Dynasty conducts environmental baseline studies to characterize the baseline physical, biological, and socio-economic conditions in the Pebble Deposit Area. The Pebble Partnership continued these studies and data collection efforts, some of which remain ongoing.
April 30, 2004	Northern Dynasty enters into a memorandum of understanding with ADNR through which it agrees to reimburse ADNR and other state agencies for the time and resources expended in the processing of state permits and approvals necessary for a Pebble mine. The Pebble Partnership later ratifies the memorandum of understanding, which has been renewed annually through 2015.

April 19, 2005	The 2005 Bristol Bay Area Plan reclassifies solely for mineral development much of the land formerly co-classified for recreation/habitat and mineral development, including the Pebble Deposit Area.
June 2, 2005	A Northern Dynasty consultant reports an off-the-record discussion in which the Corps indicates that EPA already is discussing the use of Section 404(c).
2006	Northern Dynasty acquires 100% interest in the mineral claims that comprise the Pebble Deposit Area.
2006	Rio Tinto purchases a 9.9% stake in Northern Dynasty.
2006	Northern Dynasty and federal and state agencies form Working Groups.
2007	Rio Tinto increases its share of Northern Dynasty to 19%.
2007	Wholly-owned subsidiaries of Northern Dynasty and Anglo American plc form the Pebble Partnership.
2007	Nunamta Aulukestai, a coalition of tribal corporations from the Bristol Bay region, incorporates.
February, 2008 – May, 2013	The Keystone Center conducts a stakeholder assessment and feasibility study sponsored by the Pebble Partnership.
May 5, 2009	Six federally-recognized tribes from Bristol Bay tribes, a commercial association, and Trout Unlimited file suit against the State of Alaska and ADNR seeking a declaration that the 2005 Bristol Bay Area Plan is unlawful.
August 17, 2009	Phil North advises Region 10 colleagues "I feel that both of these projects merit consideration of a 404C veto."
December 11, 2009	Bristol Bay Native Corporation adopts a resolution in opposition to the development of Pebble mine.
January, 2010	The Pebble Partnership suspends the Working Group program.
January 8, 2010	Geoffrey Parker emails Mr. North at his personal address asking for Mr. North's "suggestions, revisions or edits" with respect to a number of documents related to prohibiting large-scale mining in the Bristol Bay watershed.
August 17, 2009  December 11, 2009  January, 2010	association, and Trout Unlimited file suit against the State of Alaska ADNR seeking a declaration that the 2005 Bristol Bay Area Plaunlawful.  Phil North advises Region 10 colleagues "I feel that both of a projects merit consideration of a 404C veto."  Bristol Bay Native Corporation adopts a resolution in opposition to development of Pebble mine.  The Pebble Partnership suspends the Working Group program.  Geoffrey Parker emails Mr. North at his personal address asking for North's "suggestions, revisions or edits" with respect to a number documents related to prohibiting large-scale mining in the Bristol

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January 13, 2010	EPA Region 10 personnel brief Administrator Lisa Jackson on the "Proposed Pebble Mine Project Alaska." A "404(c) veto either preemptive, during EIS, or after EIS" are among the future options presented.
February 2, 2010	Region 10 personnel present to Susan Bromm, Director of EPA's Office of Federal Activities, a substantially similar version of the briefing made to Administrator Jackson the month before that repeats the Agency's "future options" concerning the Pebble Project.
March 8, 2010	Mr. North sends Doug Limpinsel of NOAA an email attaching his "first draft outline for a preliminary ecological assessment of Pebble."
March 9, 2010	Mr. North sends Carol Ann Woody his "Outline for Preliminary Ecological Assessment of the Pebble Copper Mine."
March 24, 2010	The Nature Conservancy provides EPA with a draft of its ecological assessment of risks associated with the development of a Pebble mine and offers Mr. North an "honorarium" if he would peer review it.
May 2, 2010	Six federally-recognized tribes from Bristol Bay request that EPA initiate a Section 404(c) action "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."
June 29, 2010	Believing it "may help," Mr. Parker sends a draft memorandum that he prepared for his client, Trout Unlimited, to Mr. North's personal email address. The draft memorandum presents a comparison of aspects of the Section 404(c) regulatory process and the Permit/NEPA Process.
	Mr. Parker separately sends Mr. North and EPA Region 10 attorney, Cara Steiner-Riley, a copy of "404(c) Substantive Option: Geographic Area by Type of Activity." The document outlines options for EPA to prohibit or restrict the discharge of dredged or fill material under Section 404(c) depending on the location and type of mining activity involved.
July 1, 2010	EPA Region 10 personnel circulate a draft Options Paper that describes three strategies for the exercise of Section 404(c) authority in the Pebble Deposit Area.
July 28, 2010	Administrator Jackson, Regional Administrator Dennis McLerran, and other EPA personnel meet with the Pebble Partnership in Anchorage.

July 28, 2010	Administrator Jackson, Regional Administrator McLerran, and other EPA personnel meet with tribal representatives and regional stakeholders in Dillingham.
August 27, 2010	Mr. Limpinsel advises a colleague that "EPA (Alaska Region 10 to their DC Administrator) has internally been discussing the possibility of exercising their Section 404c authority" with respect to the Pebble Deposit Area and that "all EPA staff in this discussion feel they should exercise Section 404c, though the timing of when exactly to initiate the process remains to be determined."
August 30, 2010	Mr. Limpinsel reports to Mr. North that a NOAA director would brief the NOAA Alaska regional administrator and his deputy concerning a potential Section 404(c) action.
September, 2010	Mr. North's computer crashes.
September 8, 2010	A draft "discussion matrix" prepared for a briefing at EPA headquarters describes the "pros" and "cons" as well as timing of a proposed Section 404(c) action targeting the Pebble Deposit Area.
September 14, 2010	Mr. North sends an email to EPA colleagues, Michael Szerlog and Richard Parkin, stating "I hope that at this point everyone has gotten their minds around the idea that our focus is on the resource and not on any particular project. To that end, here are some thoughts about how I might approach a 404c action. The landscape unit that supports the resource we are discussing is the Bristol Bay watershed. So initially it seems that area should be the target of our 404c action. During the process of developing our proposed determination we would refine our target area based on the need for protection." Mr. North forwarded this email to Mr. Parker later that day.
September 21, 2010	The Governor of Alaska sends a letter to Administrator Jackson asking EPA to decline the tribes' petition that EPA act under Section 404(c) to prohibit mining in the Bristol Bay watershed, believing such regulatory action would be "premature."
September 23, 2010	Phil Brna, FWS, reports that Mr. North "believes EPA leaders have decided to proceed [with 404(c)] and they are just deciding when."
October 1, 2010	FWS staff prepare a briefing document entitled "EPA to Seek Service Support When They Use 404(c) of the Clean Water Act."
December 15, 2010	The Nature Conservancy presents to EPA personnel its research and field studies in Bristol Bay and its ecological risk assessment.

2011	An internal EPA document bearing the heading "FY11 Proposed Investment: Bristol Bay 404(c)" indicates that the Agency sought \$312,000 to address a "Funding Gap." The document states that the requested funds would be used to "initiate the process and publish a CWA 404(c) 'veto' action for the proposed permit for the Pebble gold mine in Bristol Bay, AK. *** Region 10 believes that additional information gathering and analysis must be completed in order to support a decision to formally initiate of [sic] 404(c). It's still possible that a veto will not prove necessary, but a decision to move forward has created the need for upfront analysis and outreach regardless." [A specific budget proposal of this sort may have been in motion as early as 2009 and would have been finalized and submitted for approval no later than October 1, 2010 to be included in the FY11 budget.]
February 3, 2011	EPA advises the Corps of its intent to conduct the BBWA.
February 7, 2011	EPA publicly announces that it will conduct the BBWA and states that the move "does not represent any regulatory decision by the agency."  EPA invites the National Marine Fisheries Service, an office of NOAA, to participate in the development of the BBWA.
February 17, 2011	The Wardrop Report is published.
February 28, 2011	John Shively, CEO of the Pebble Partnership, thanks EPA "for keeping an open line of communication" regarding the decision to conduct the BBWA and reiterates the Pebble Partnership's belief that any EPA action should be stayed until the Pebble Partnership has filed a permit application.
October 21, 2011	The Pebble Partnership sends a letter to EPA about BBWA. The letter addresses EPA's access to the EBD, EPA's request for a mine design layout, information about other mining operations, the BBWA schedule, the peer review process, tribal consultation, and mitigation. The letter reiterates that the Pebble Partnership "sincerely appreciates the open communication we have enjoyed" with EPA.
November, 2011	A BBNC poll indicates "shareholder opposition to the proposed Pebble mine has grown to 81 percent over the past four years."
November 1, 2011	The Pebble Partnership presents information about the EBD to EPA.
December, 2011	The Pebble Partnership releases the EBD to EPA and the public.

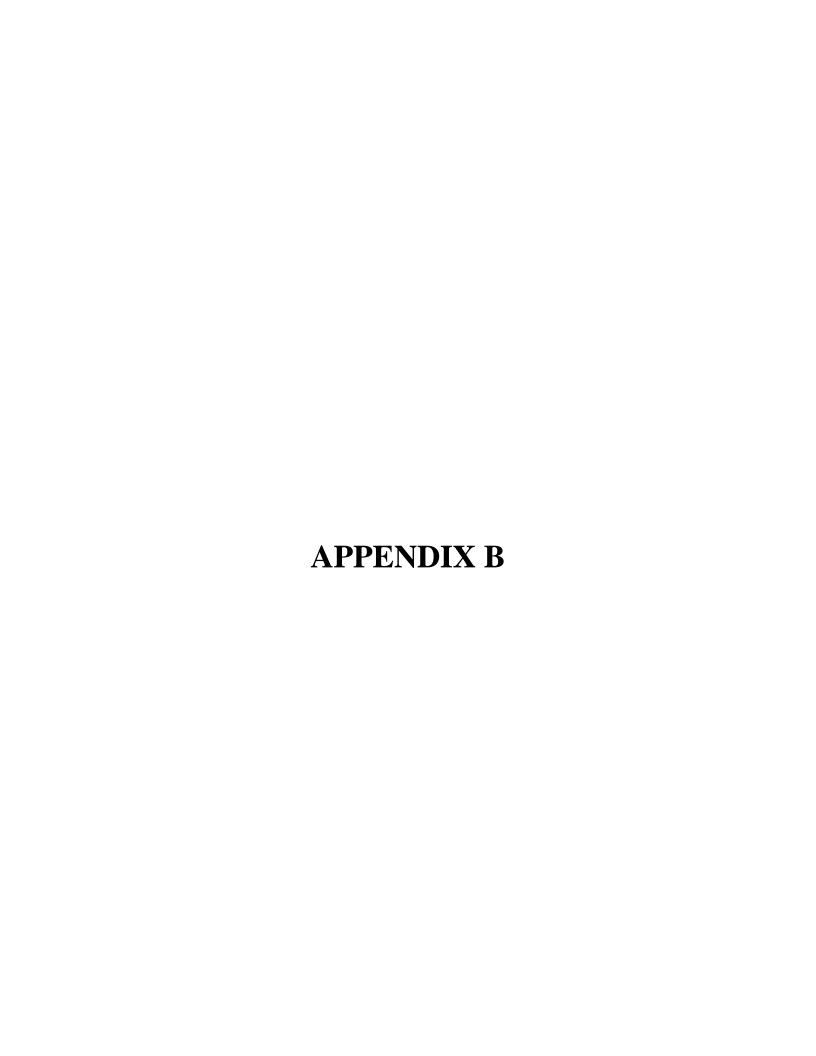
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March, 2012	The Bristol Bay Native Association adopts a resolution supporting EPA's proactive use of Section 404(c).
April 16, 2012	EPA Administrator Jackson meets with the BBNC and representatives of 40 interested sporting and commercial groups.
May 10, 2012	Then-Chairman of the House Committee on Oversight and Government Reform Darrell Issa and Rep. Jim Jordan initiate an investigation into EPA's actions regarding a potential Pebble Mine by sending a series of questions to Administrator Jackson about EPA's authority under Section 404(c).
May 18, 2012	EPA announces the release of its initial BBWA draft.
May 18, 2012 - July 23, 2012	EPA opens the public comment period on the first BBWA draft.
May 29, 2012	The State of Alaska seeks a 120-day extension of the 60-day public comment period on grounds that the time provided is "inadequate for the public, including the State, to address technical and legal merits of the assessment"
June, 2012	EPA hosts eight public meetings about the BBWA draft.
July, 2012	EPA hosts two webinars summarizing comments received during its June, 2012 public meetings about the BBWA draft.
July 23, 2012	The public comment period for the first BBWA draft closes. The Petitioning Tribes, the BBNC, the State of Alaska, the Natural Resources Defense Council, the Pebble Partnership, and others submit comments on the first BBWA draft.
August 7-9, 2012	Independent peer reviewers meet in Anchorage, Alaska to review the first BBWA draft.
September 17, 2012	The peer review panel provides EPA with its "Final Peer Review Report."
October, 2012	Alaska's then-Lieutenant Governor, Mead Treadwell, receives an application for a "Bristol Bay Forever" initiative that would "require final legislative authorization for any new large-scale metallic sulfide mining operations in the watershed of the Bristol Bay Fisheries Reserve."

February 20, 2013	Members of the Senate Committee on Environment and Public Works write to EPA Acting Administrator Bob Perciasepe with questions about EPA's BBWA and its use of Section 404(c).
April 30, 2013	EPA releases the second BBWA draft for 30-day public review and comment period. EPA subsequently extended the comment period to 60 days.
May, 2013	Mr. North retires from EPA.
June 28, 2013	The Petitioning Tribes, the BBNC, the State of Alaska, the Natural Resources Defense Council, and the Pebble Partnership provide EPA with comments on the second BBWA draft.
June 30, 2013	The public comment period for the second BBWA draft closes.
August 1, 2013	U.S. House of Representatives Committee on Science, Space, and Technology holds a hearing about the BBWA.
September, 2013	Senate Committee Republicans publish a report asserting that Administrator Jackson used a "secondary, alias email account," that EPA employees used personal email accounts for official business, and that EPA responded to FOIA requests poorly and with too many exemptions.
September 5, 2013	ADNR adopts revised 2005 Bristol Bay Area Plan that alters land use designations in some areas; the vast majority of the Pebble Deposit Area remains designated exclusively for mineral development.
September 16, 2013	Anglo American plc announces its withdrawal from the Pebble Partnership, leaving Northern Dynasty as the sole partner.
January 15, 2014	EPA publishes the final BBWA.
February 28, 2014	EPA issues its Notice of Intent to proceed under Section 404(c) of the Clean Water Act. EPA sends letters to the Corps, the State of Alaska, and the Pebble Partnership, providing each with 15 days to provide a response to the Notice of Intent and to submit information to demonstrate that no unacceptable adverse effects to aquatic resources would result from any associated mining discharges.
February 28, 2014	The State of Alaska requests EPA to toll the time period to respond to the Notice of Intent until the Pebble Partnership files a permit application or at least an extension of time to comment.

March 11, 2014	The Pebble Partnership requests a stay or an extension of the 15-day period to respond to EPA's Notice of Intent.
March 13, 2014	EPA grants the State of Alaska and the Pebble Partnership 45-day extensions to respond to EPA's Notice of Intent but denied their requests to stay the process.
March 14, 2014	The Corps responds to EPA's Notice of Intent and declines to submit any substantive response based on the "premature" nature of the request.
March 25, 2014	EPA meets separately with the State of Alaska and the Pebble Partnership to hear their respective concerns in connection with the proposed Section 404(c) action.
April, 2014	Rio Tinto donates its 19.1% stake in Northern Dynasty to two Alaskan charitable foundations.
April 29, 2014	The State of Alaska submits its response to EPA's Notice of Intent.
April 29, 2014	The Pebble Partnership submits its response to EPA's Notice of Intent.
May, 2014	EPA's Office of Inspector General launches an investigation to "determine whether the [EPA] adhered to laws, regulations, policies and procedures in developing its assessment of potential mining impacts on ecosystems in Bristol Bay, Alaska."
May 21, 2014	The Pebble Partnership files a lawsuit against EPA, claiming its Section 404(c) action at Pebble mine was a violation of the Administrative Procedure Act.
June, 2014	EPA reports "a likely loss of electronic copies of emails related to Mr. North's official email account."
June 23, 2014	The Alaska Supreme Court holds that the "Bristol Bay Forever" ballot initiative does not violate Alaska's Constitution and refuses to enjoin its placement on the ballot.
July 21, 2014	EPA Region 10 issues its Proposed Determination.
July 21, 2014- September 19, 2014	Public comment period on EPA's Proposed Determination.
August 1, 2014	The State of Alaska asks EPA to reschedule seven planned public hearings on the Proposed Determination and to grant a 60-day extension of the public comment period.

August 5, 2014	EPA denies the State of Alaska's requests to reschedule public hearings and to extend the public comment period on the Proposed Determination.
August 12-15, 2014	EPA conducts seven public hearings on the Proposed Determination.
September, 2014	Rep. Issa and Sen. Vitter inquire into alleged collusion between the Natural Resources Defense Council and EPA.
September 3, 2014	The Pebble Partnership files a lawsuit against EPA alleging that EPA colluded with three categories of Pebble Mine opponents to develop and implement a plan to invoke Section 404(c) in violation of the Federal Advisory Committee Act.
September 19, 2014	The State of Alaska advises EPA that its Section 404(c) process is "unlawful, premature, and not scientifically defensible in a number of key respects," requests that EPA refrain from proceeding with the process, and provides legal, procedural, and technical criticisms of the Proposed Determination.
September 19, 2014	The Pebble Partnership files its response and objections to EPA's Proposed Determination.
September 26, 2014	The Pebble Partnership's Administrative Procedure Act Lawsuit against EPA is dismissed.
October 14, 2014	The Pebble Partnership files a lawsuit against EPA under the FOIA, seeking declaratory and injunctive relief.
November, 2014	The Natural Resources Defense Council responds to the joint request of the Senate Committee on Environment and Public Works and House of Representatives Committee on Oversight and Government Reform by providing approximately 450 emails to Sen. Vitter and Rep. Issa.
November 25, 2014	The court grants the Pebble Partnership's request for a preliminary injunction against EPA in the Federal Advisory Committee Act lawsuit.
May 28, 2015	The Ninth Circuit upholds dismissal of the Pebble Partnership's Administrative Procedure Act lawsuit against EPA.
June 4, 2015	The court grants in part and denies in part EPA's motion to dismiss the Federal Advisory Committee Act lawsuit. The lawsuit proceeds; the preliminary injunction remains in place.

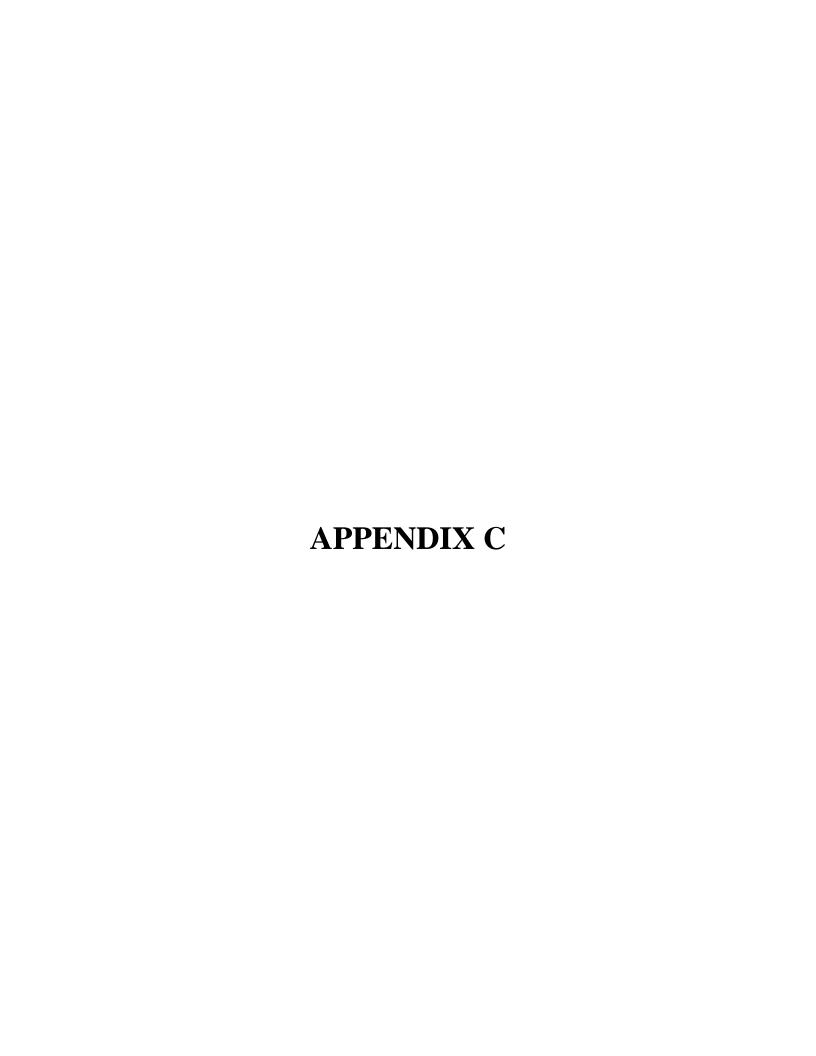
August 4, 2015	The court presiding over the Pebble Partnership's FOIA civil action issues a tentative disposition to resolve the case, holding that (1) EPA made a "prima facie showing of adequate response" to the Pebble Partnership's FOIA request despite "the apparent fact that the EPA's responses did not include any emails from former EPA Administrator Jackson's or Phillip North's personal email accounts" which would not be in EPA's possession; and (2) EPA's withholding of documents based on its deliberative process privilege objections should be evaluated in the context of discovery in the parties' Federal Advisory Committee Act litigation.
August 6, 2015	EPA reports that its Inspector General discovered a potential loss or removal of federal records stemming from Mr. North's use of "a personal, non-EPA email account to potentially conduct government business [with a third party] and fail[ure] to forward those messages into Agency [EPA] systems."
August 27, 2015	On August 27, 2015, the court presiding over the Pebble Partnership's FOIA lawsuit granted the Partnership's request for a subpoena of Mr. North. The court ordered that Mr. North be deposed on November 12, 2015 in Anchorage, Alaska.
August 31, 2015	The court holds that, prior to dismissing the FOIA lawsuit, it would conduct a review of certain documents that EPA has withheld on privilege grounds to determine if they should be produced to the Partnership.



### **Sampling of Bristol Bay Watershed Studies**

- DAVE CHAMBERS ET AL., BRISTOL BAY'S WILD SALMON ECOSYSTEMS AND THE PEBBLE MINE: KEY CONSIDERATIONS FOR A LARGE-SCALE MINE PROPOSAL (2012).
- DAVID M. CHAMBERS & BRETWOOD HIGMAN, LONG-TERM RISKS OF TAILINGS DAM FAILURE (2011).
- ALISON M. CRAVEN ET AL., EVALUATION OF COPPER-DISSOLVED ORGANIC MATTER BINDING IN SURFACE WATERS AT THE PROPOSED PEBBLE MINE IN ALASKA (2010).
- JOHN DUFFIELD ET AL., NATURESERVE, BRISTOL BAY WILD SALMON ECOSYSTEM: BASELINE LEVELS OF ECONOMIC ACTIVITIES AND VALUES (2013).
- JOHN DUFFIELD ET AL., TROUT UNLIMITED ALASKA, ECONOMICS OF WILD SALMON WATERSHEDS: BRISTOL BAY, ALASKA (2007).
- EARTHWORKS, U.S. COPPER PORPHYRY MINES REPORT: THE TRACK RECORD OF WATER QUALITY IMPACTS RESULTING FROM PIPELINE SPILLS, TAILINGS FAILURES AND WATER COLLECTION AND TREATMENT FAILURE (2012).
- CHRISTOPHER A. FRISSELL, UNIVERSITY OF ALASKA ANCHORAGE, FORESEEABLE ENVIRONMENTAL IMPACT OF POTENTIAL ROAD AND PIPELINE DEVELOPMENT ON WATER QUALITY AND FRESHWATER FISHERY RESOURCES OF BRISTOL BAY, ALASKA (2014).
- Bretwood Higman, Ground Truth Trekking, Critique of Pebble Limited Partnership's Seismic Hazard Assessment (2012)
- JAMES R. KUIPERS ET AL., COMPARISON OF PREDICTED AND ACTUAL WATER QUALITY AT HARDROCK MINES (2006).
- STUART LEVIT & DAVID CHAMBERS, CENTER FOR SCIENCE IN PUBLIC PARTICIPATION, COMPARISON OF THE PEBBLE MINE WITH OTHER ALASKA LARGE HARD ROCK MINES (2012).
- BOB LOEFFLER, ASSESSING ECOLOGICAL RISK OF PROPOSED MINES: CAN VALID ASSESSMENTS BE DONE PRE-DESIGN? (2012).
- THE NATURE CONSERVANCY, AN ASSESSMENT OF ECOLOGICAL RISK TO WILD SALMON SYSTEMS FROM LARGE-SCALE MINING IN THE NUSHAGAK AND KVICHAK WATERSHEDS OF THE BRISTOL BAY BASIN (2010).
- WILLIAM M. RILEY ET AL., MINING THE PEBBLE DEPOSIT: ISSUES OF 404 COMPLIANCE AND UNACCEPTABLE ENVIRONMENTAL IMPACTS (2011).
- CAMERON WOBUS ET AL., THE NATURE CONSERVANCY, POTENTIAL HYDROLOGIC AND WATER QUALITY ALTERATION FROM LARGE-SCALE MINING OF THE PEBBLE DEPOSIT IN BRISTOL BAY, ALASKA: RESULTS FROM AN INTEGRATED HYDROLOGIC MODEL OF A PRELIMINARY MINE DESIGN (2012).
- CAROL ANN WOODY & BRENTWOOD HIGMAN, GROUNDWATER AS ESSENTIAL SALMON HABITAT IN NUSHAGAK AND KVICHAK RIVER HEADWATERS: ISSUES RELATED TO MINING (2011).

- CAROL ANN WOODY & SARAH L. O'NEAL, THE NATURE CONSERVANCY, EFFECTS OF COOPER ON FISH AND AQUATIC RESOURCES (2012).
- CAROL ANN WOODY & SARAH L. O'NEAL, THE NATURE CONSERVANCY, FISH SURVEYS IN HEADWATER STREAMS OF THE NUSHAGAK AND KVICHAK RIVER DRAINAGES BRISTOL BAY, ALASKA 2008-2010 (2010).
- THOMAS G. YOON & REBECCA L. BERNARD, MITIGATION OF IMPACTS FROM LARGE-SCALE HARDROCK MINING IN THE BRISTOL BAY WATERSHED (2012).
- KENDRA L. ZAMZOW, INDEPENDENT BASELINE WATER QUALITY CHARACTERIZATION OF THE PEBBLE PROJECT AREA IN SOUTHWESTERN ALASKA (DATE UNKNOWN).
- KENDRA L. ZAMZOW, THE NATURE CONSERVANCY, INVESTIGATIONS OF SURFACE WATER QUALITY IN THE NUSHAGAK, KVICHAK, AND CHULITNA WATERSHEDS, SOUTHWEST ALASKA 2009-2010 (2011).



### **Sampling of Contacts Between EPA and Mine Opponents**

- On January 22, 2007, Geoffrey Parker copied personnel from EPA and the Corps on a letter to ADNR supplying the comments of the Renewable Resources Coalition, Trout Unlimited, Nunamta Aulukestai (Caretakers of Our Land), Nondalton Tribal Council, and others about Northern Dynasty's exploration permits. Mr. Parker urged ADNR to condition further action on the permits on Northern Dynasty "providing a more satisfactory response to agency comments on study plans as well as the results of its baseline studies" and waiving any takings claim it may bring against the State of Alaska or United States for denying permits. Letter from Geoffrey Y. Parker, Esq., to Marty Rutherford, Acting Commissioner, ADNR, Dick Mylius, Acting Director, ADNR Division of Mining, Land and Water, and Melinda O'Donnell, Project Coordinator, ADNR (Jan. 22, 2007) (cc to Patricia McGrath, EPA, Cindi Godsey, EPA, Don Kuhle, the Corps).
- On March 3, 2009, Shoren Brown requested a meeting with EPA Acting Assistant Administrator, Office of Water, his Chief of Staff, and the Director of the Wetlands Division of the Office of Wetlands, Oceans and Watersheds, to "get some advice on how to work with the EPA as this [Pebble] mine proposal moves forward." Documents indicate the meeting was scheduled to occur at EPA headquarters on March 6, 2009. Email from Shoren Brown, Trout Unlimited, to Mike Shapiro, EPA (March 3, 2009); see also Email from Shoren Brown, Trout Unlimited, to Michael Szerlog, EPA, Mary Thiesing, EPA, and Patricia McGrath, EPA (Nov. 4, 2009).
- In June 2009, Mr. Parker spoke with EPA Region 10 personnel about his clients' lawsuit against the State of Alaska "to overturn the current 2005 Bristol Bay Area Plan" and their interest in "possibly being cooperating agencies on a future EIS on Pebble Mine." In September 2009, Mr. Parker supplied EPA with a copy of the amended complaint his clients filed in the BBAP litigation "so [they] can start to know the issues" which "are likely to affect the context and content of the EIS process." Mr. Parker also requested an EPA point of contact for future correspondence regarding these issues. Email from Geoffrey Y. Parker, Esq., to Mike Bussell, EPA (Sept. 17, 2009) (cc to Christine Psyk, Edward Kowalski, Marcia Combes, John Pavitt, and Patricia McGrath, all EPA).
- In November 2009, Trout Unlimited staff met with EPA Region 10 staff with responsibilities bearing on a potential Pebble mine to introduce themselves and present their "concerns with widespread hard rock mining in the headwaters of the Nushagak and Kvichak rivers." Email from Shoren Brown, Trout Unlimited, to Michael Szerlog, EPA; Mary Thiesing, EPA, and Patricia McGrath, EPA (Nov. 4, 2009); *see also* Michael Szerlog, EPA, Work Request Form (Nov. 9, 2009).
- On November 13, 2009, Phil North emailed Tim Troll, Marcus Geist, and Douglas Wachob of The Nature Conservancy to explore their availability for a meeting in Anchorage "to discuss wetland conservation around Tyonek, Bristol Bay and the Kenai Peninsula and how we might be able to support each other or collaborate with our work." Email from Phil North, EPA, to Marcus Geist, The Nature Conservancy, Douglas Wachob, The Nature Conservancy, and Tim Troll, The Nature Conservancy (Nov. 13, 2009).

- On April 5, 2010 Mr. Troll sent Mr. North a copy of "Bill Riley's Comments on the Proposed Pebble Mine Predictive Ecological Risk Assessment prepared for The Nature Conservancy." Email from Tim Troll, The Nature Conservancy, to Phil North, EPA (Apr. 4, 2010).
- On April 13-14, 2010, Mr. Brown and Mr. North exchanged emails about Mr. Brown's meeting earlier in the month with EPA Region 10 staff and preparations for "the RA [Regional Administrator] and Administrator briefings[.]" Mr. Brown advised that he provided EPA's Mike Bussell with "background on the 404c ask and let him know we would be coming to town soon with that ask." Mr. Brown added that Mr. Bussell "seemed receptive and reiterated that the Pebble issue in general is a priority for [EPA Administrator] Lisa Jackson and they look forward to hearing more from us soon about what they can do to help." Email from Shoren Brown, Trout Unlimited, to Phil North, EPA (Apr. 14, 2010).
- On June 8, 2010, Mr. Parker arranged to speak with EPA Region 10 attorney, Cara Steiner-Riley, regarding federal regulations "from 1979 that address the issue of using 404(c) before applications are filed," and he faxed her the relevant regulations. Email from Geoffrey Y. Parker, Esq., to Cara Steiner-Riley, Esq., EPA (June 8, 2010).
- On June 14, 2010, Mr. Brown sent Mr. North a "404c summary" that sets forth information about "projects vetoed under Clean Water Act § 404(c)." Email from Shoren Brown, Trout Unlimited, to Phil North, EPA (June 14, 2010).
- On July 16, 2010, Mr. Brown emailed EPA Region 10's Michael Szerlog and Mr. North alerting them to "some negative rumors circulating within the tribes and other interest groups working on [P]ebble about the upcoming EPA trip to Alaska" and offering "to help out and circulate the correct information for you to these stakeholders if you would like." Email from Shoren Brown, Trout Unlimited, to Michael Szerlog, EPA (July 16,2010) (cc to Phil North, EPA).
- On July 18, 2010, Mr. Parker emailed EPA Region 10's Patricia McGrath explaining actions his clients had taken "to conserve the Kvichak and Nushagak drainages" and that would support "reasons for doing 404(c) before permit applications are submitted[.]" Email from Geoffrey Y. Parker, Esq., to Patricia McGrath, EPA (July 18, 2010) (cc to Cara Steiner-Riley, Esq., EPA).
- On August 23, 2010, Mr. Parker sent Ms. Steiner-Riley a memorandum analyzing Section 404(c) and other provisions of the Clean Water Act asserting that "EPA has an implied responsibility to propose comprehensive 'advance prohibition' under § 404(c) of the Clean Water Act, when appropriate. This responsibility is triggered by circumstances in the Kvichak and Nushagak drainages of Alaska." Memorandum from Geoffrey Y. Parker, Esq., to Cara Steiner-Riley, Esq., EPA (Aug. 23, 2010); see Email from Geoffrey Y. Parker, Esq., to Cara Steiner-Riley, Esq., EPA (Aug. 23, 2010).
- On September 7 and 8, 2010, Wayne Nastri individually requested senior EPA personnel Bob Sussman, Bob Perciasepe, and Michelle DePass meet with members of a "broad-based coalition that is seeking a pre-emptive CWA 404(c) action with regard to the proposed

Pebble Mine[.]" Email from Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA, to Bob Perciasepe, Acting Administrator, EPA (Sept. 7, 2010); Email from Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA, to Bob Sussman (Sept. 8, 2010); Email from Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA, to Michelle DePass, EPA (Sept. 8, 2010). EPA documents indicate that the requested meeting occurred on September 23, 2010. EPA, September 23, 2010 Meeting Invitation from Bob Sussman, EPA, to Bob Perciasepe et al., EPA. The meeting invitation identified Mr. Sussman as the "chair" of the meeting and listed the following EPA personnel as required attendees: Mr. Perciasepe; Ms. DePass; Nancy Stoner; Peter Silva, Assistant Administrator for the Office of Water; Avi Garbow, Deputy General Counsel, EPA; and Scott Fulton, General Counsel, EPA. *Id.*; *see* Email from Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA, to Dennis McLerran, Regional Administrator, EPA Region 10 (Sept. 29, 2010).

- On September 14, 2010, Mr. North emailed his colleagues Mr. Szerlog and Mr. Parkin "[t]houghts for the Bristol Bay discussion tomorrow," which included "how I might approach a 404c action." Later that day, Mr. North forwarded this internal communication to Mr. Parker, the Petitioning Tribes' attorney. Email from Phil North, EPA, to Geoffrey Y. Parker, Esq. (Sept. 14, 2010).
- In November 2010, EPA's Palmer Hough coordinated with Mr. Brown to arrange for representatives of The Nature Conservancy to brief EPA staff about The Nature Conservancy's Bristol Bay risk assessment. *See* Email from Palmer Hough, EPA, to Shoren Brown, Trout Unlimited (Nov. 4, 2010).
- On December 17, 2010, The Nature Conservancy presented its risk assessment to EPA personnel, including Mr. North and Mr. Hough, and others who contributed to the BBWA and who planned to "discuss our own [EPA] risk assessment" during a meeting that week. Email from Phil North, EPA, to Palmer Hough, EPA (Dec. 13, 2010) (cc to Shoren Brown, Trout Unlimited, Heather Dean, EPA, Dan Rinella, University of Alaska Anchorage, Julia McCarthy, EPA and Ross Geredien, EPA).
- On January 27, 2011, Trout Unlimited hosted a meeting for EPA headquarters and Region 10 staff, during which Dr. Ann Maest, Dr. David Chambers, and Dr. Thomas Quinn presented "current science about the potential impacts on Bristol Bay from the proposed Pebble mine as well as The Nature Conservancy's recently published: An Assessment of Ecological Risk to Wild Salmon Systems from Large-Scale Mining in the Nushagak and Kvichak Watersheds of the Bristol Bay Basin." Email from Palmer Hough, EPA, to EPA (Jan. 26, 2011).
- On August 23, 2011, Mr. Parker separately emailed Mr. North and Mr. Parkin with comments on charts prepared for the intergovernmental team meeting to alert them that he did not "see dust from open pit mining" reflected in them. Mr. Parker stated that he thought "there would be about 50,000 explosions per year" and suggested EPA "check out the dust contaminant provisions [in] either the NDM feasibility report of a few months ago, or the

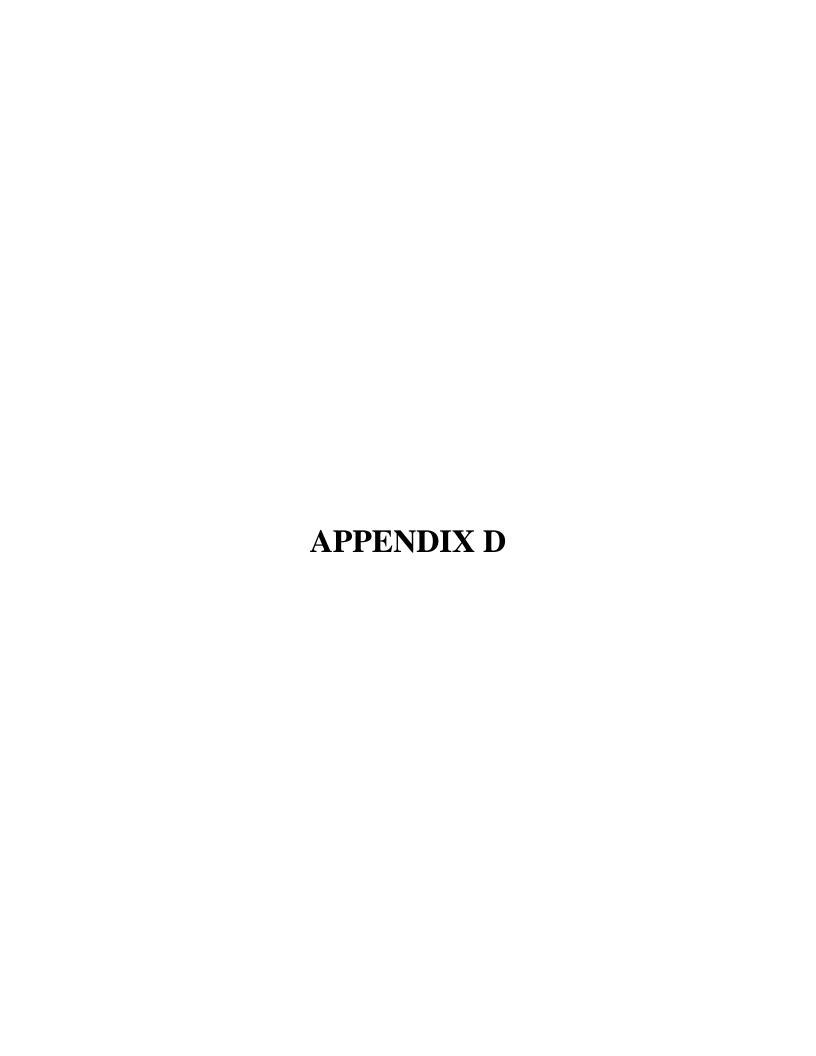
- 2006 applications or similar sources." Email from Geoffrey Y. Parker, Esq., to Phil North, EPA (Aug. 23, 2011).
- On September 21, 2011, Mr. Parker sent to Mr. North's personal email address a "draft" document entitled "History of Conservation and Land Use Planning Efforts in the Kvichak and Nushagak Drainages" and a memorandum addressed to Mr. Hough, with copy to Mr. North, the subject of which was "[a]ssuming that EPA makes a 404(c) determination regarding the Kvichak and Nushagak drainages, what can make it stable under future federal administrations?" Email from Geoffrey Y. Parker, Esq., to Phil North, EPA (Sept. 21, 2011); Geoffrey Y. Parker, Esq., Draft Memorandum on the "History of Conservation and Land Use Planning Efforts in the Kvichak and Nushagak Drainages" (2011); Memorandum from Geoffrey Y. Parker, Esq., to Palmer Hough, EPA (Sept. 12, 2011). The first line of the memorandum read "[t]hank you for asking for my thoughts on what might help a 404(c) determination to be relatively stable over subsequent administrations. I'll identify twelve ideas, seven of which EPA might implement, and five of which my clients, I or others might implement." Memorandum from Geoffrey Y. Parker, Esq., to Palmer Hough, EPA (Sept. 12, 2011). Mr. Parker forwarded the email he sent to Mr. North's personal address to Mr. Hough on September 22, 2011. See Email from Geoffrey Y. Parker, Esq., to Palmer Hough, EPA (Sept. 22, 2011).
- On November 28, 2011, Mr. Brown sent Mr. Hough an embargoed copy of a report about "Bristol Bay's wild salmon ecosystems and the Pebble Mine" prepared by the Wild Salmon Center and Trout Unlimited. Mr. Hough forwarded the report to the "Bristol Bay Team." Email from Shoren Brown, Trout Unlimited, to Palmer Hough, EPA (Nov. 28, 2011).
- On January 4, 2012, Mr. Parkin received from Trout Unlimited, BBNC, and Mr. Nastri a paper prepared by Mr. Riley and Thomas Yocom, entitled "Mining the Pebble Deposit: Issues of 404 Compliance and Unacceptable Environmental Impacts." The next day, Mr. Parkin sent the paper to several colleagues involved with the BBWA stating it "is very pertinent to discussions about use of 404(c)." Email from Rick Parkin, EPA, to Palmer Hough, Michael Szerlog, Phil North, Mary Thiesing, Jeff Frithsen, Heather Dean, Sheila Eckman, Glenn Suter, all EPA (Jan. 5, 2012).
- On January 20, 2012, Mr. Nastri asked EPA Region 10 Policy Advisor Bill Dunbar if BBNC and Trout Unlimited could present a report by Messrs. Riley and Yocom, entitled "Mining the Pebble Deposit: Issues of 404 Compliance and Unacceptable Environmental Impacts," "to staff involved with the [BBWA]" after which Mr. Nastri, Tiel Smith, Peter Van Tuyn, and Mr. Brown would meet with Mr. Dunbar and Regional Administrator McLerran to discuss "upcoming efforts and activities related to completion of the Watershed Assessment." EPA personnel scheduled a meeting for February 14, 2012 and invited members of the "assessment team." Email from Jeff Frithsen, EPA, to Richard Parkin, EPA, and Judy Smith, EPA (Feb. 2, 2012).
- On January 26, 2012, Rebecca Bernard sent Ms. Steiner-Riley "the latest draft of a paper [she had] written that analyzes the potential takings implications of a proactive (advance) 404(c) action in Bristol Bay" and asked to speak with Ms. Steiner-Riley about it. The two set a time

- to talk Wednesday, February 1st. Email from Rebecca Bernard, Esq., Bessenyey & Van Tuyn L.L.C., to Cara Steiner-Riley, Esq., EPA (Jan. 30, 2012).
- On February 14, 2012, Mr. Parker sent Mr. Hough, Mr. Parkin, and Mr. North "a memo that recommends how to speed up the current process for the watershed assessment and any 404(c) determination" by "shifting from a 'linear' schedule to an 'overlapping' schedule." Email from Geoffrey Y. Parker, Esq., to Rick Parkin, EPA, and Palmer Hough, EPA, (Feb. 14, 2012) (cc to Phil North, EPA). On February 17, 2012, Mr. Parker asked Mr. Hough whether he was available "to discuss what I sent and what EPA feels it has committed to in terms of schedule." Email from Geoffrey Y. Parker, Esq., to Palmer Hough, EPA (Feb. 17, 2012).
- On March 8, 2012, Mr. Sussman chaired a meeting at EPA headquarters arranged at Mr. Nastri's request. Joining Mr. Nastri at the meeting were two Alaska Native tribal leaders, senior leadership of the BBNC, Mr. Brown, and Mr. Van Tuyn. EPA participants included Mr. Perciasepe, Ms. DePass, Michelle Pirzadeh, and Ms. Stoner. Agenda items included an "overview of 2010-2012 actions" such as "Congressional Outreach," "Executive Branch Outreach," "Stakeholder Mobilization (sportsmen, faith and natives)," "In Region (Alaska, Pacific Northwest) actions," "Technical Support," "Timing Issues associated with completion of the Watershed Assessment," and "Next Steps." Materials describing the purpose for the meeting explain that "EPA's watershed assessment is nearing completion and timing for any subsequent actions will be critical. This group respectfully requests to meet with EPA Senior leadership for 30-60 minutes to discuss their overall plans for 2012 as it relates to Bristol Bay and US Government action." Donald Maddox, EPA Meeting Notice, "BBNC/TU/Tribal Meeting with USEPA re Bristol Bay" (Mar. 8, 2012). The next day, Mr. Nastri thanked Mr. Sussman for taking the time to meet with the group and pledged to "continue to work to support the Agency's efforts by providing technical information, where possible and appropriate, and through our continued outreach to local, state, and federal stakeholders" and to "keep you [Mr. Sussman] apprised of our efforts." Email from Bob Sussman, EPA, to Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA (Mar. 9, 2012). Mr. Sussman replied "[p]leasure to work with you on this." Id.
- On April 18, 2012, Alaska Conservation Foundation hosted a webinar for EPA personnel and other BBWA contributors featuring a "discussion about coordinated science research related to the fisheries of Bristol Bay and their relation to the Bristol Bay Watershed Assessment." Email from Judy Smith, EPA, to Sam Snyder, Trout Unlimited (Apr. 13, 2012). Participants included Trout Unlimited, BBNC, and Center for Science and Public Participation, as well as Dr. Maest, Dr. Chambers, Dr. Woody, and other scientists. *Id*.
- On February 28, 2013, Regional Administrator McLerran participated in a telephone conference with Bristol Bay Alaska Native tribes facilitated by Mr. Nastri. Email from Matthew Magorrian, EPA, to Mr. Parkin, Mr. McLerran, Ms. Pirzadeh, all EPA (Feb. 28, 2013) (cc to Mr. Sussman and Donald Maddox, both EPA).
- On April 22, 2013, Acting Administrator Perciasepe, Gina McCarthy, Mr. Sussman, Ms. DePass, Ms. Stoner, and Lek Kadeli, Principal Deputy Assistant Administrator for

Management for the Office of Research and Development, EPA, participated in a meeting with representatives of BBNC, Trout Unlimited, and sportsmen and commercial fishing organizations facilitated by Mr. Nastri about "their request for CWA 404(c) action in Bristol Bay." Meeting invitation from Jeff Frithsen, EPA (Apr. 22, 2013). Following the meeting, Mr. Parkin told Kimberly Williams, Executive Director of Nunamta Aulukestai, that "we just had at least our third Wayne Nastri facilitated meeting with commercial and sport fishermen and BBNC directors and the sense of urgency was conveyed to the highest levels of the agency (Acting Administrator Bob Perciasepe and Bob Sussman)." Email from Richard Parkin, EPA, to Kimberly Williams, Nunamta Aulukestai (Apr. 22, 2013).

- On July 3, 2013, Mr. Parker asked EPA Region 10's Tami Fordham if there is "any way of quickly checking whether my comments [on the April 2013 BBWA draft] were received." Ms. Fordham forwards Mr. Parker's request to a colleague explaining "[t]hey are likely still working through all of the comments but since Jeff Parker is asking I thought I would see if there is anything you can do to help check on this." Email from Tami Fordham, EPA, to Judy Smith, EPA (July 3, 2013).
- On September 4, 2013, EPA Region 10 Administrator McLerran sent an appointment request to Mr. Dunbar and Mr. Parkin for a meeting with Mr. Nastri and Mr. Brown on September 26th to "discuss finalization of Bristol Bay Watershed Assessment and next steps." Email from Dennis McLerran, Regional Administrator, EPA Region 10, to Bill Dunbar, EPA, and Rick Parkin, EPA (Sept. 4, 2013).
- On September 16, 2013, Mr. Nastri spoke with EPA's Arvin Ganesan and followed-up with an email request for a meeting with EPA Administrator McCarthy in October, 2013, noting that she and Region 10 Administrator McLerran expressed interest in meeting. Mr. Nastri stated that he wished "to formally introduce Bristol Bay United to the Administrator and discuss our organization, along with our goals and objectives, relative to EPA's Watershed Assessment and potential future action." Email from Wayne Nastri, co-President of E4 Strategic Solutions and former EPA Regional Administrator for Region 9, EPA, to Arvin Ganesan, EPA (Sept. 16, 2013). Mr. Nastri added that his group would "be meeting with Congressional members and planning to meet with White House staff." Id. Mr. Nastri's email included a proposed agenda that explained that Bristol Bay United is a "broad-based coalition" led by a steering committee comprised of senior members of BBNC, Commercial Fishermen for Bristol Bay, and Trout Unlimited. Wayne Nastri, Meeting Request with Administrator McCarthy (Sept. 16, 2013). The "[c]oalition members have worked with EPA management and staff for the last few years on protecting the Bristol Bay Watershed." Id. They requested the meeting with the Administrator to brief her "on pending matters related to their request for CWA 404(c) action in Bristol Bay." Id. Regional Administrator McLerran added his support for the meeting with Administrator McCarthy and asked that Region 10 be included. Email from Dennis McLerran, Regional Administrator, EPA Region 10, to Arvin Ganesan, EPA (Sept. 18, 2013). EPA documents suggest this meeting took place on December 19, 2013. EPA, Memorandum regarding Meeting with: Bristol Bay United-Sportsmen, Commercial Fishermen, Alaska Native Leaders with Bristol Bay Native Corporation, and Conservationists (Dec. 19, 2013).

• On November 25, 2013, Mr. Parkin received a voice message from Mr. Parker and reported to EPA's Sheila Eckman, Ms. Steiner-Riley, and Mr. McLerran that Mr. Parker also left a voice message for another EPA personnel "saying he [Mr. Parker] wants to discuss having heard that we're [EPA] considering taking an approach that addresses only Pebble & the concerns he has with such an approach." Mr. Parkin expressed that "[m]y concern is that he seems to hear far more than he should" and asked for his colleagues' "[t]houghts, suggestions[.]" The next day, Ms. Steiner-Riley reported that she and Elizabeth McKenna had spoken with Mr. Parker. During the call, Mr. Parker "explained that the 'only Pebble' approach was coming from Bristol Bay United, and he has concerns about what they are advocating." Ms. Steiner-Riley further stated that she "asked him to call us and not our clients if he wants to discuss his concerns." Email from Cara Steiner-Riley, Esq., EPA, to Richard Parkin, Sheila Eckman, and Dennis McLerran, all EPA (Nov. 26, 2013) (cc to Elizabeth McKenna, Esq., EPA).



To:

Michael Smith[MichaelS@northerndynasty.com]

From:

Cheryl Moody

Sent: Thur 6/2/2005 1:00:14 AM Subject: Off The Record, Sort Of... Received: Thur 6/2/2005 1:01:32 AM

Mike -- I'm going to let you decide what, if anything to do with this information. I had an "off the record" discussion about Pebble with Leroy which is how we generally exchange information that may be sensitive but which could affect one or the other of us! I think he would have a conversation with you on this directly, if you call him.

- 1. Leroy indicated that the COE's legal department ended up getting into a "what if" discussion about Pebble after our meeting last week. The consensus was that they don't know if the project is permittable or not. The only comparable project they are aware of is called the Two Forks Project in Colorado, which the City of Denver was the proponent (15 years of baseline studies). None of the commenting agencies actually recommended the COE deny the permit, but all came back with lists of mitigation they would expect if the COE issued the permit. In the end the COE issued an notice of intent to issue, at which point the EPA executed their "C" veto. Phil North apparently told Leroy at our meeting that EPA headquarters has already discussed using the "C" on Pebble.
- 2. Leroy indicated that the only way to avoid being blindsided by the "C" veto would be for EPA to be your lead agency. At that point, if their document returns a finding of no significant impact with the mitigation proposed -- then they could not turn around and veto the permit. If the COE is the lead, they can and very likely would based on Phil's discussions with Leroy.
- 3. I indicated to Leroy that I'm concerned that NDM is going to end up with only one viable alternative from an engineering standpoint, and that not one that I feel actually meets the standards of the Clean Water Act very well (maintaining the <a href="https://physical">https://physical</a>, chemical, and biological integrity of the nations waters). He said that this has already been discussed by the COE and they feel that the "F" option needs to be reevaluated, and right now they don't feel that an EIS would move forward without the company evaluating other alternatives that are much farther away. I don't think that we know enough about the "F" area to know if the soils there are going to have the same permeability -- but Leroy said repeatedly that the least damaging alternative does not have to be the most practicable, which is true, it only has to be practicable. He said he can't say with certainty that the COE would not issue a permit, but that they are going to require the company to prove up some of these alternatives that were farther away, in lieu of simply rolling over and giving them a permit to fill the Frying Pan Lake Wetlands.

What I told Leroy -- with great qualifications that I've had no direct confirmation of this by the company, only an offhanded remark by Ken -- is that I don't think the tailings are considered absolutely benign anymore. I think this because the water seeping out of the impoundment would not be such an issue if it was really clean water, and it would be illogical to keep going to Frying Pan Lake against the advice of the entire environmental team -- if they actually had other options. Leroy doesn't know the entire environmental team opposed that alternative, simply that it appears to me the company is moving forward only with that alternative. This is when he brought up Option F -- as he understands the permeability issue would follow them throughout the North Fork options as well as the Talarik being an non-option. He says run off into the Park would not preclude that being the least damaging practicable alternative, even if it was a political hotbed. So, if I were NDM, I'd be doing preliminary soils investigations at F and looking at the permeability options in that region -- or I'd start looking farther a field for another potential alternative, because they are going to need something else viable in order to make their preferred option look more palatable. They can start doing this now, or expect to be stopped well into their EIS process....

Cheryl Moody
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Palmer, Alaska 99645
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(907) 746-1501 fax
cmoody@mtaonline.net





### Chuitna and Pebble Retreats

Phil North to: Michael Szerlog, Marcia Combes

Co: Hanh Shaw, John Pavitt

08/17/2009 02:04 PM

From:

Phil North/R10/USEPA/US

To:

Michael Szerlog/R10/USEPA/US@EPA, Marcia Combes/R10/USEPA/US@EPA

Co:

Hanh Shaw/R10/USEPA/US@EPA, John Pavitt/R10/USEPA/US@EPA

### Michael and Marcia,

It looks like the team meetings for these two mines will happen, pending availability of critical team members. We will try to take advantage of the Alaska team members being in Seattle for the Regional Mining Team Retreat on September 18. The NPDES program is retreating on the 17th so we are proposing the two mine teams (which are all the same except for John Pavitt) meet on the 16th. I wanted to extend an invitation to the two of you. Each mine will be discussed for up to half the day.

### The draft agenda is:

Overview of parts of the mine - Hanh/John
Quick review of EPA responsibilities
NEPA issues - Hanh (Hanh on Penble?)
NPDES issues - Cindi
404 Issues - Phil

Quick review of studies relevant to the above.

Discussion about weaknesses, missing information and fatal flaws.

Discussion about the EPA position on all of the above.

Discussion about the appropriate action in response to our position.

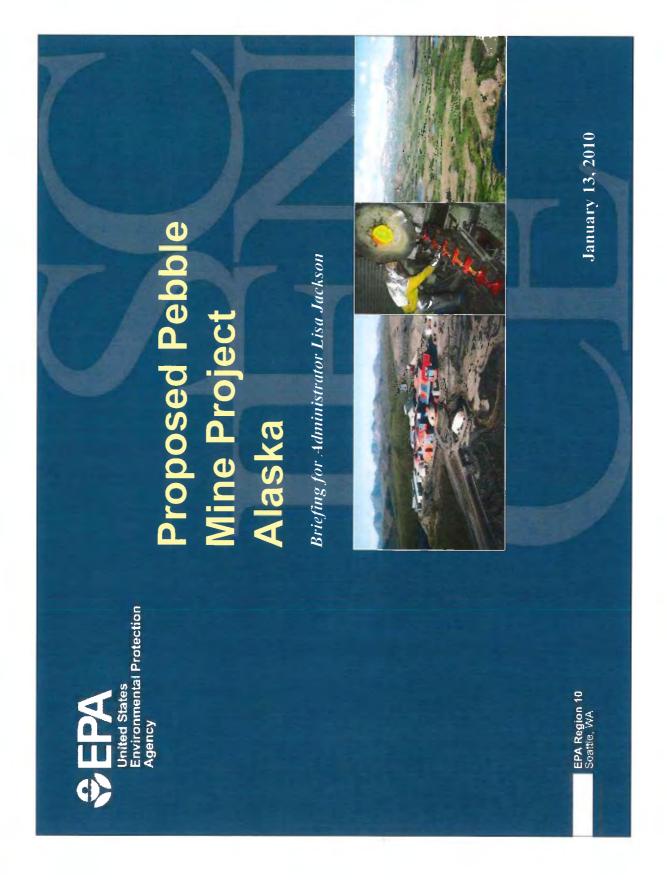
As you know I feel that both of these projects merit consideration of a 404C veto. We will discuss this from a technical perspective and staff perspective at these meetings.

### Phil

Phillip North
Environmental Protection Agency
Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax 260-5992
north.phil@epa.gov

<sup>&</sup>quot;To protect your rivers, protect your mountains."

### DOCUMENT PAGE BREAK





## **Presentation Overview**

- Description of the proposed Pebble Mine
- Description of resources at risk
- Issues of concern
- EPA's regulatory role current and future
- Future options to positively impact project

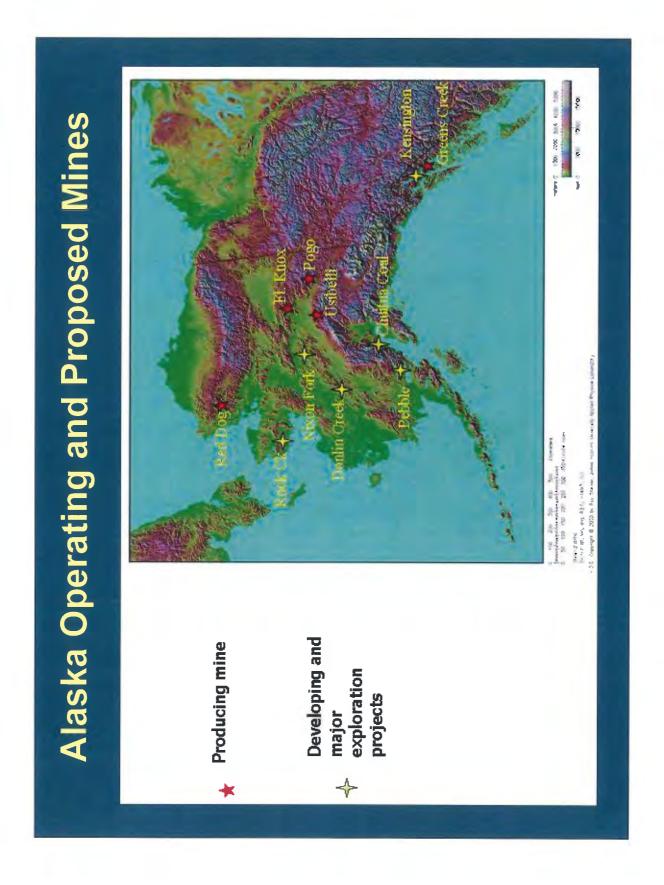
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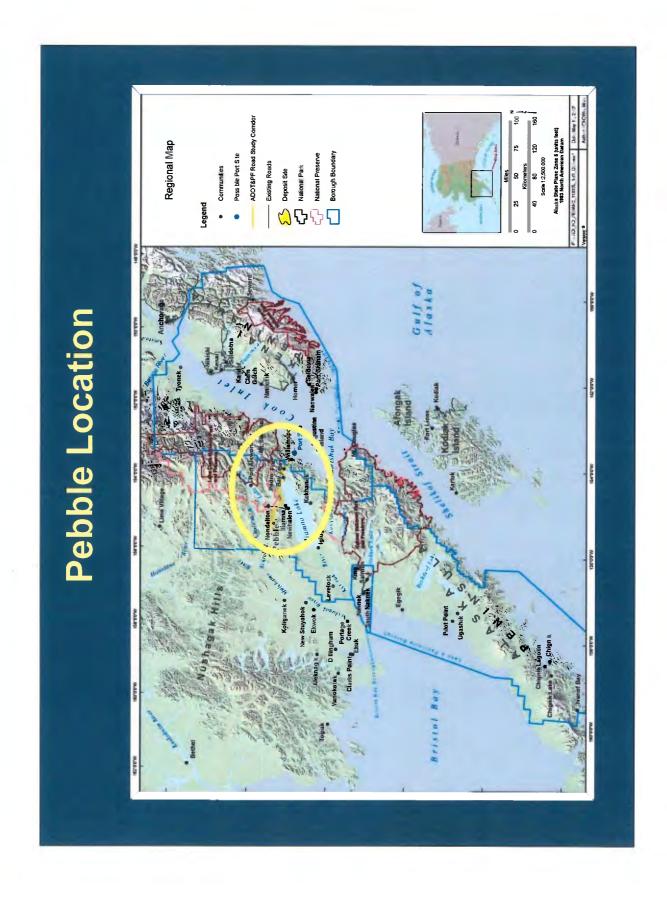


### Key Messages

- Would be one of the largest mines in North America
- Located in a remote, environmentally sensitive location within the headwaters of a world class salmon fishery
- Unique, high-value Native Alaskan subsistence uses
- Project beyond the capability of current resources

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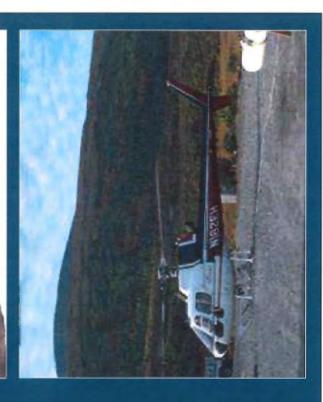
### **Proposed Pebble Mine**

- Project Proponent: Pebble Partnership
- Joint venture between Northern Dynasty and Anglo American LLC
- Land Ownership:
- State land
- Pebble Partnership holds mineral rights on 153 square miles
- Proposed road would cross native allotments



### Pebble – Current Status

- Exploration
- Environmental baseline data collection
- Mine permit applications have not been submitted
- Possible submittal date 2011?





## Pebble Project Proposal

- Current proposal:
- 120,000 to 220,000 tons of ore processed/day
- 30 + year mine life
- Produce copper and molybdenum concentrates, gold and silver



- Mine and mill
- Access to/from the mine site (road)
- Power



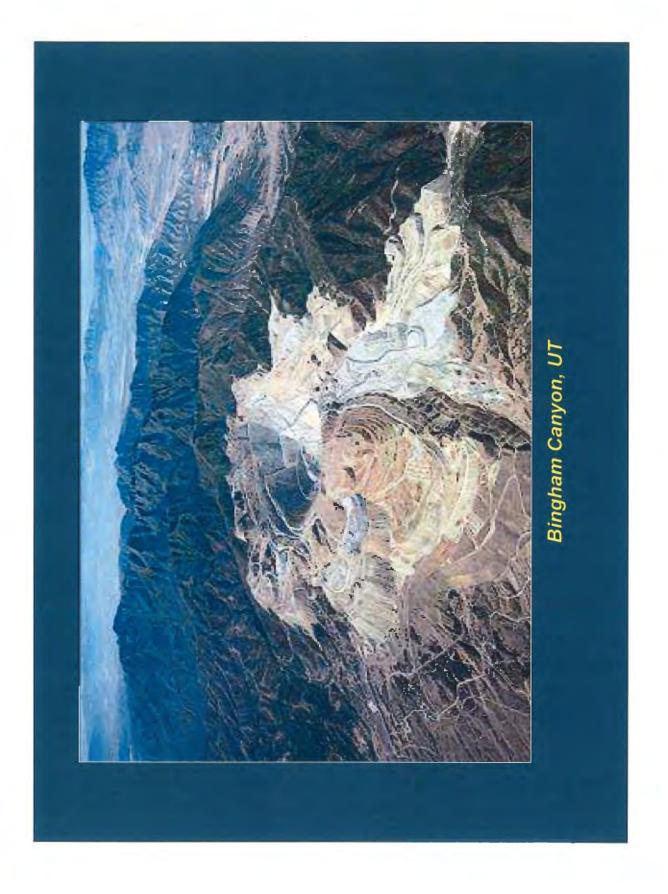


# Proposed Pebble Open Pit Mine

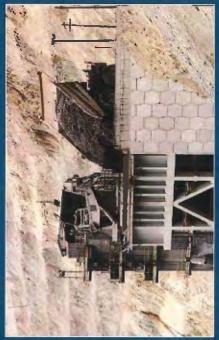
- Approximately 2 miles long x 2000 feet deep
- Possible underground extension
- Ore processing facilities (mill)
- Waste rock disposal sites
- Tailings impoundments
- Housing and freshwater storage

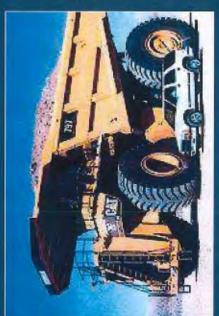


Fort Knox Mine, AK





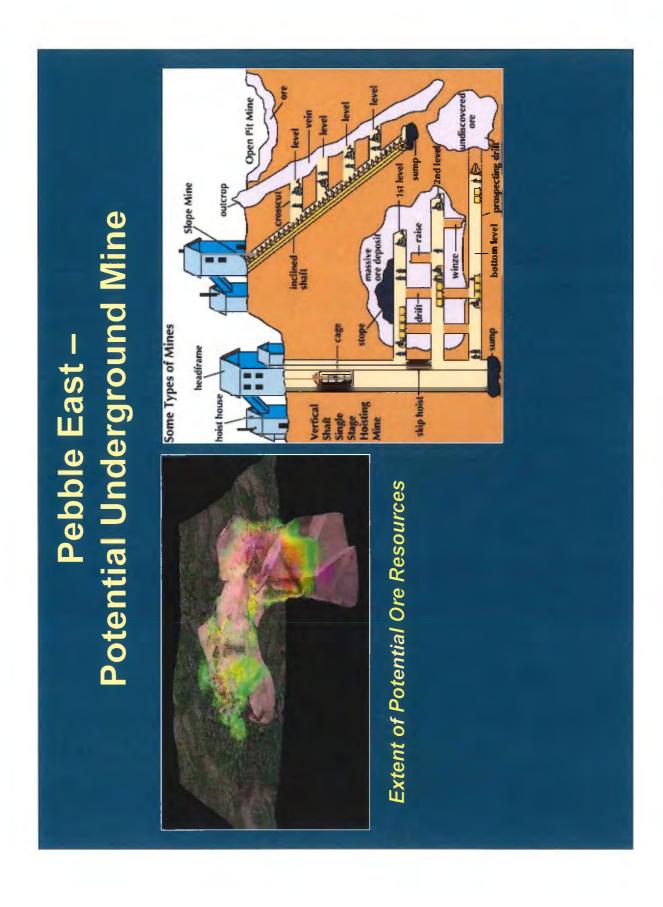




### Open Pit Mining

BlastingHauling to crusher/mill

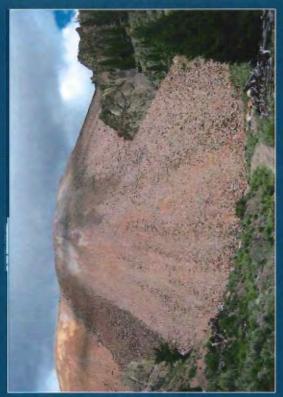




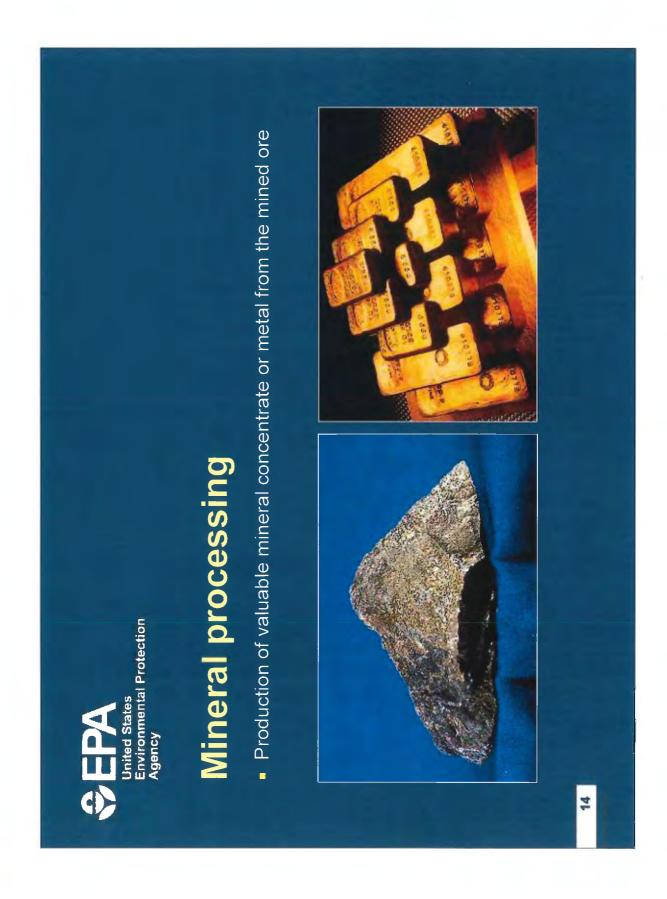


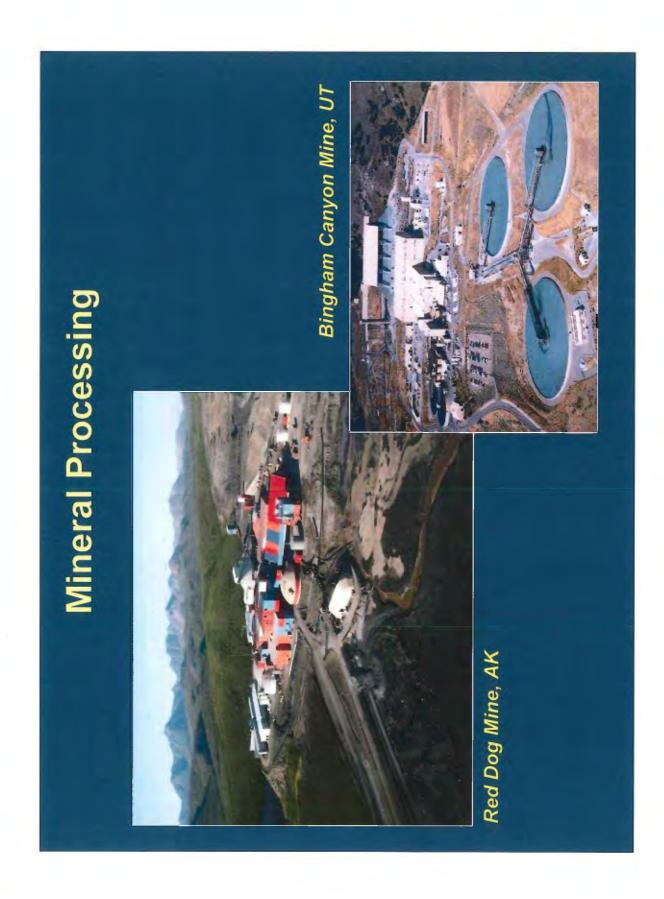
### Waste Rock

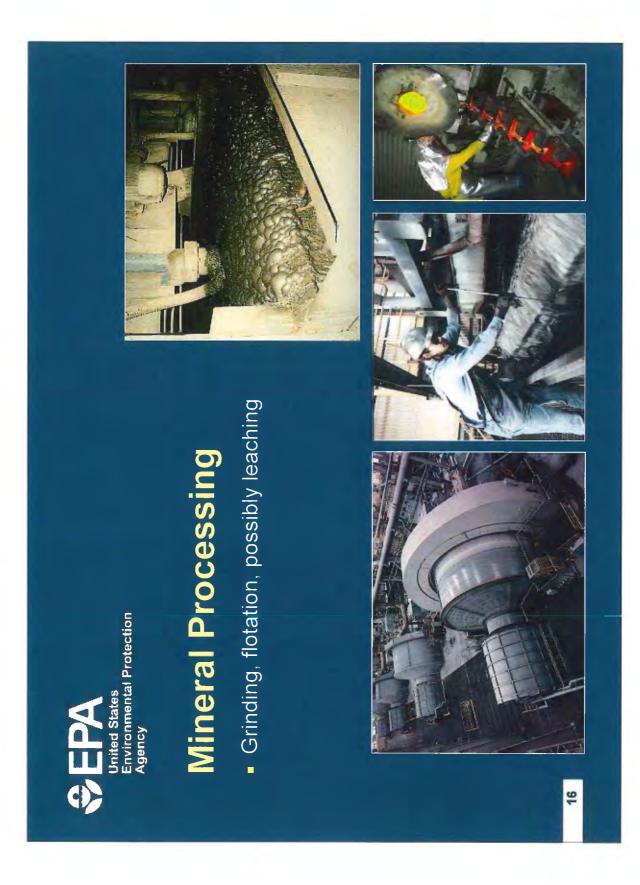
- Mineralized rock that is not economic for mining
- For every ton of ore produced, up to 4 tons of waste rock are produced.



Thompson Creek Mine, ID





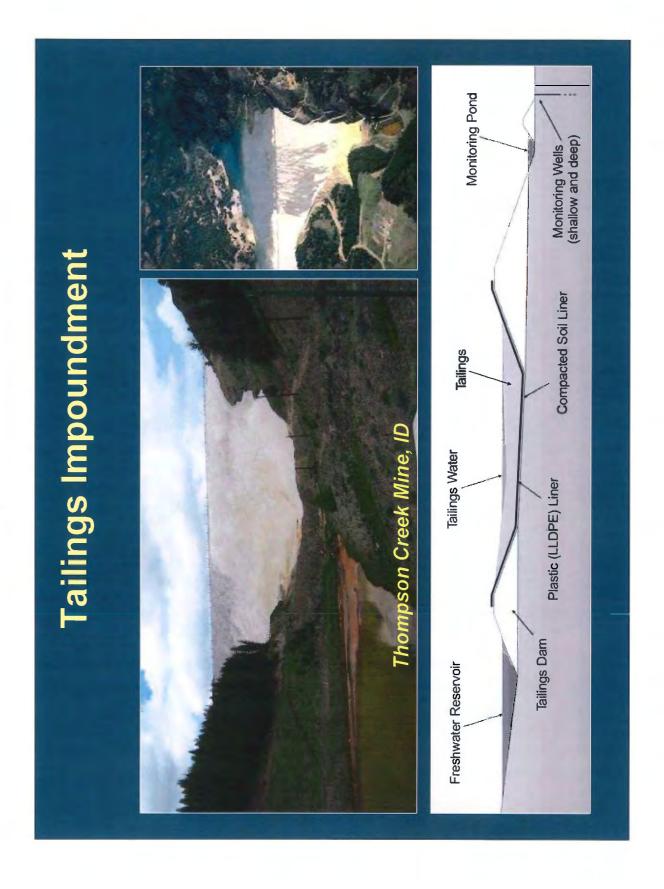




# Proposed Pebble Tailings Disposal

- Tailings are ground up wastes from processing; includes solids and process wastewater.
- Amount = approx. 4.5 billion tons
- Tailings proposed to be disposed in ponds created by damming valleys.
- Approx. tailings pond size: > 700 foot-high and 6 mile long dam(s)

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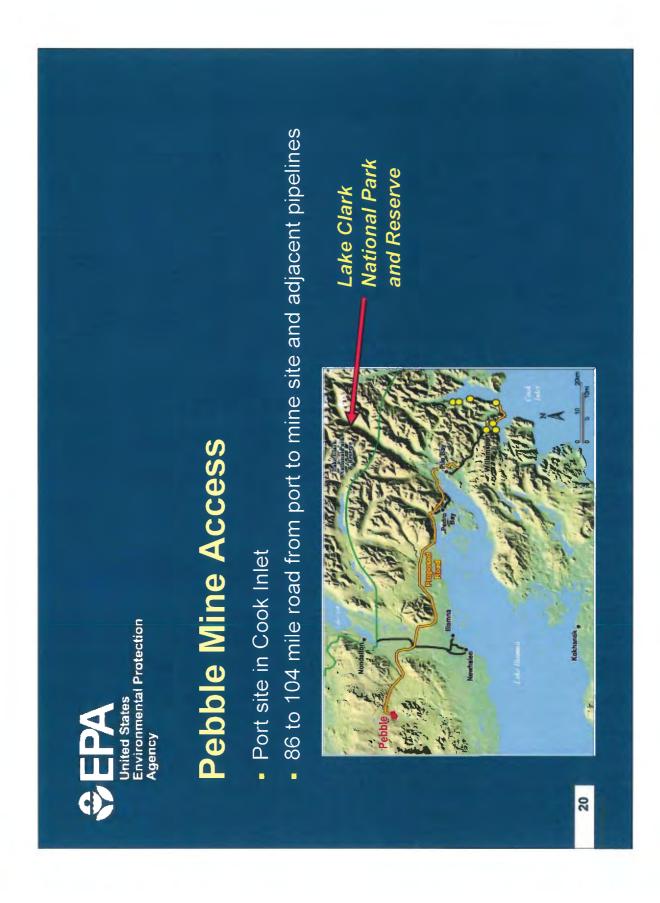




### Pebble Mine - Power

- 400 MW of power needed for mining and port site
- Power alternatives include on-site or relying on transmission lines
- Currently not enough surplus power

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### Resources at Risk

- Located in headwaters of pristine Bristol Bay watershed and world class fishery.
- resources, wildlife (caribou and moose), vegetation, ESA-listed Potential for impacts to wetlands, surface waters, aquatic species
- Important subsistence and traditional use area for native Alaskan communities

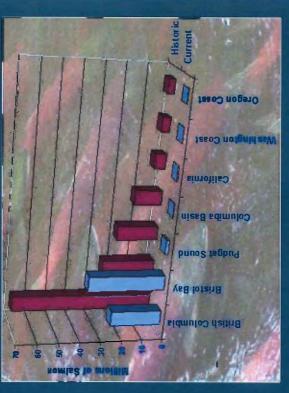
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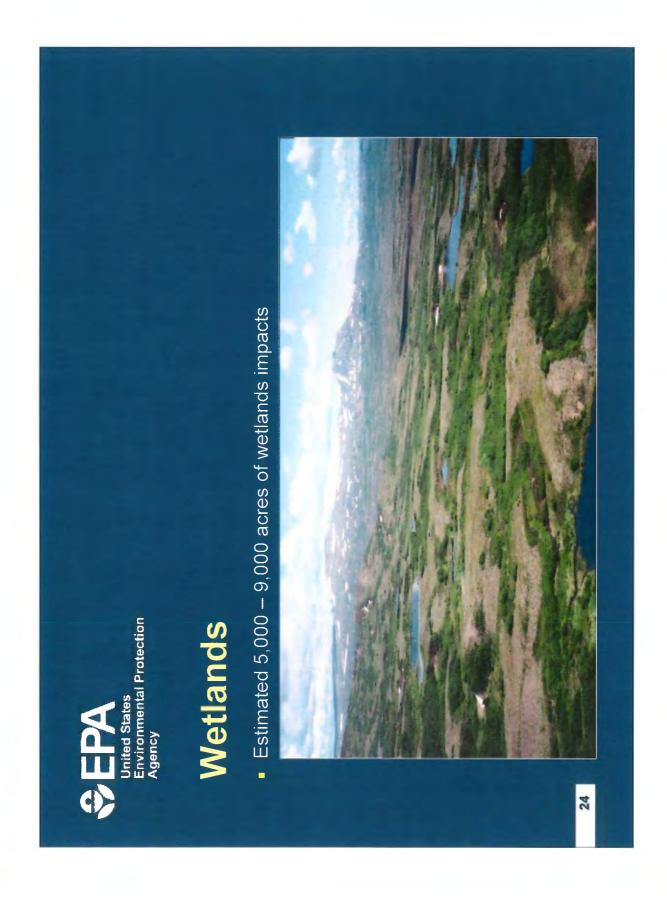


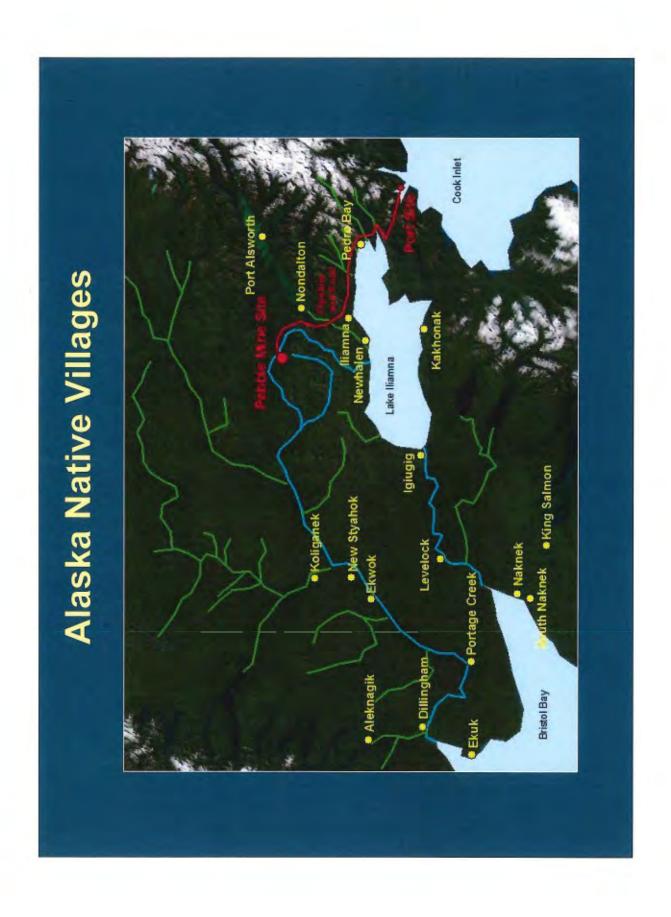
### Salmon Fishery

- Nushagak and Kvichak rivers produce 13% of Alaska's salmon & 1.6 billion salmon smolts which influence the biomass of North Pacific Ocean
- Commercial value of salmon from these rivers range \$30 – ~70 million annually
- In all of North America, only Bristol Bay maintains historic levels of wild salmon



Historic and Current West Coast North American Salmon Run Size

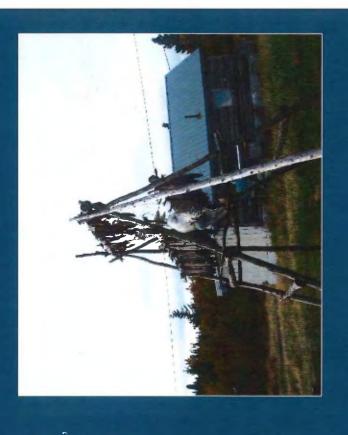






### Tribal Concerns

- Important subsistence and traditional use area – salmon, caribou, berry-picking, etc.
- State NPDES authorization
- Corps as the EIS lead
- Mixed tribal viewpoints



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### Pebble Controversy

- Ballot Measure 4 (Aug 2008) would have tightened state water discharge rules for large mines.
- Award-winning "Red Gold" documentary highlights lifestyle/subsistence fishing in Bristol Bay.
- 18 jewelers vowed to boycott Pebble gold
- 13 Seattle restaurants hand out anti-Pebble literature with seafood dinners
- Google: "Pebble Mine Controversy" yields 496,000 results. The public is interested!



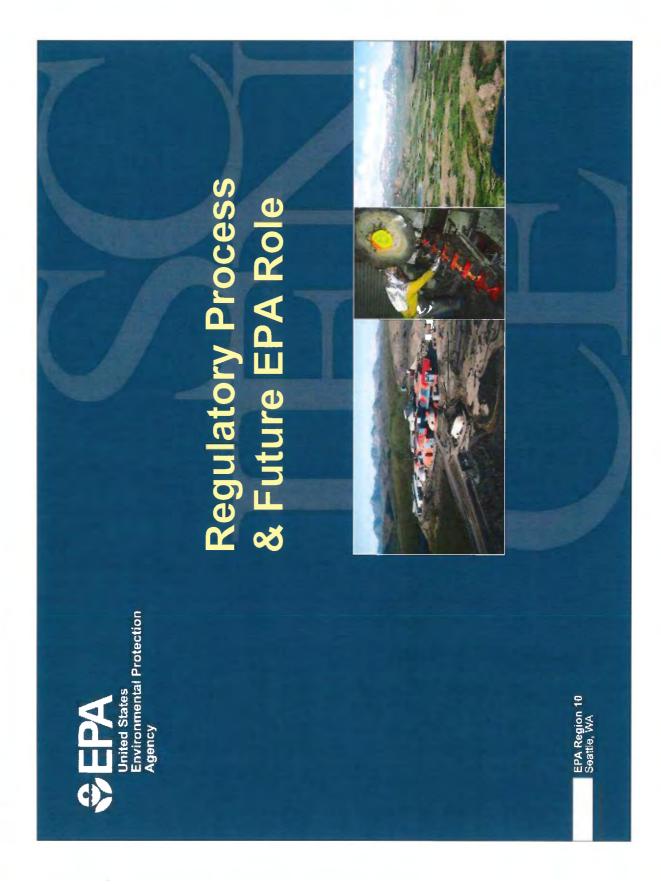


### Pebble Controversy

- 8 AK Native village corporations (Nunamta Aulukestai), filed suit to void AK DNR exploration permit.
- Bristol Bay Native Corp (BBNC) voted to oppose development of Pebble Mine, while 2 village corporations condemned BBNC's position.
- Survey of AK Native residents in Bristol Bay area found 79 % of respondents think the mine would harm fishing.
- 300 signatories representing sportsmen, conservation groups and business wrote DOI Secretary Salazar to stop BLM's proposal to open 1M acres of federal lands to mining in Bristol Bay watershed.









# Multiple Agencies Regulate Mining

- Federal Agencies
- Land Management Agencies:
  - USFS, BLM, NPS
- EPA
- Army Corps of Engineers
- USFWS
- NOAA

- State Agencies
- Environmental Department
  - Natural Resources
     Department
- Fish and Game
- Department of Law
- Historic Preservation Office
- Tribal Governments
- Local
- Counties and (in Alaska) Boroughs



**Environmental Protection** 

### Many Permits and Authorizations Required for Mining in Alaska

### STATE

- Plan of Operations (DNR)
- Reclamation and Bonding (DNR)
- Waste Management Permits and Bonding (ADEC)
- Certification of NPDES and ACOE Permits (ADEC) Sewage Treatment System Approval (ADEC)
  - - Air Quality Permits (ADEC)
- Fish Habitat and Fishway Permits (ADFG)
  - Water Rights (DNR)
- Right of Way/Access (DNR/DOT)
- Tidelands Leases (DNR)
- Dam Safety Certification (DNR)
- Cultural Resource Protection (DNR)
- Monitoring Plan (Surface/Groundwater/Wildlife) (DNR/DEC)
- Coastal Zone Consistency Determination (DNR)

### **FEDERAL**

- US EPA Section 402 NPDES Water Discharge
- US EPA Air Quality Permit review
- US ACOE Section 404 Dredge and Fill Permit
- US ACOE Section 106 Historical and Cultural US ACOE Section 10 Rivers and Harbors Act
- NMFS Threatened and Endangered Species Act Resources Protection
- NMFS Marine Mammal Protection Act

Consultation

- **NMFS Essential Fish Habitat**
- NMFS Fish and Wildlife Coordination Act
- **USFWS Threatened and Endangered Species Act** Consultation
- **USFWS** Bald Eagle Protection Act Clearance
  - **USFWS Migratory Bird Protection**
- **USFWS Fish and Wildlife Coordination Act**



# How is EPA Involved in Review and Permitting of Mining?

- National Environmental Policy Act
- Clean Water Act
- Safe Drinking Water Act
- Clean Air Act
- **EPA Does Not Regulate:**
- Exploration Activities
- Solid Wastes from mining
- Reclamation and closure
- Financial assurance
- These are regulated by states and, on federal land, by US Forest Service and BLM



### NEPA

Corps of Engineers likely to be NEPA lead agency \*

The EIS will assess:

- air quality
- surface water quality
- ground water quality
  - wetlands
- vegetation
  - wildlife
- fish & aquatic resources
- geochemistry
- geotechnical stability

socioeconomics

land use & recreation

- subsistence cultural resources
- visual resources
  - health
- environmental justice
  - cumulative impacts
- noise

\* PLP, State, tribes, and the Corps would prefer EPA lead



## **CWA 402 NPDES Permits**

- NPDES permits required for the discharge of pollutants from point sources to waters of the U.S.
- Needed for discharges from tailings ponds, mine drainage, storm water.
- EPA delegated NPDES program to AK. In Nov. 2010, AK will begin writing mining permits.
- EPA role = oversight of state



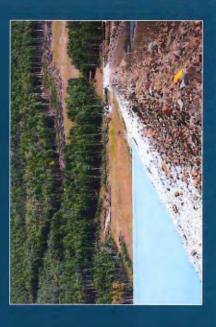


# **CWA 404 Wetlands Permits**

- Permits issued by Corps for dredge or fill activities in wetlands and waters of the U.S
- Will be required for roads, gravel sites, tailings facility, etc.
- Corps must select least environmentally damaging alternative
- EPA can veto under 404(c)
- Tribal consultation



Kensington (AK) Lower Slate Lake



### Tribal Village Plan Borough Plan Local Local Process City Plan Air Quality Monitoring Plan ADFG Fish Hebitat ADNR Operation Plan Reclamation Plan APDES Permit Waste Management National Historic Preservation Act 106 Consultation Permit, Certification, Parallel Process Process State Approvel State Fisheries Management Act USFWS/NMFS Endangered Species Act Consultation Environmental Justice Magnuson-Stevens Tribal Consultation **EFH Assessment** Permit, Certification, Federal Process Corps E.O. 13175 E.O. 12898 Federal Record of Decision Notice of Intent Draft EIS Final EIS Process Scoping EIS



## **EPA Involvement To-Date**

- Established project manager & project review team
- Review baseline environmental data & submit comments to PLP
- Coordinate with other agencies
- Site visits
- Meetings with tribes and other groups
- Summer 2010 Tribal Mining Training in villages



### Pebble - Issues

- Technical/Scientific
- Very large mine site and waste sites
- Located in headwaters of world class salmon fishery
- Potential for acid rock drainage
- Long-term closure and financial assurance
- Transportation risks associated with road and port traffic
- Tribal
- Subsistence and socio-cultural impacts
- How to effectively involve 20+ tribes in the region
- Regulatory
- One of first new mines that will be subject to APDES
- Loss of tribal consultation, EPA lead NEPA role



### Future Options

- Project-specific options to influence project:
- Assign lead role in developing EIS
- 404(c) veto either pre-emptive, during EIS, or after EIS
- Regulatory change that could influence project
- · Change existing CWA 402/402 permitting framework that was upheld in the Kensington Supreme Court case
- U.S.; instead disposal under the waste treatment exclusion as controlled by Revise regulations to not allow direct disposal of tailings in waters of the



### A JOINT LETTER

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

May 2, 2010 (mailed May 21, 2010)

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

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

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

Dear Ms. Jackson and Mr. McLerran:

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

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

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

Letter, SW Alaska Tribes to EPA, re: 404(c)

Page 1

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

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

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

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

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

40 CFR 230.1 (italics added). The Guidelines address direct, cumulative and secondary effects. 40 CFR 230.11. Secondary effects are those associated with a discharge, but do not result from actual placement of the material, and must be considered prior to agency action under §404. 40 CFR 230.11(h)(1). In this case, a 404(c) process should address potential secondary effects on commercial, subsistence, and recreational fishing and hunting, and public use of parks and preserves. See 40 CFR Part 230, subpart F. All are at issue as discussed herein and in attached letter from counsel, and in the briefing paper attached to enclosed letter to State Rep. Edgmon. <sup>2</sup> These include: (1) protecting America's waters; (2) expanding the public conversation on environmentalism and working for environmental justice; and (3) forging strong partnerships between EPA, tribes and states. See EPA's seven national priorities at <a href="http://blog.epa.gov/administrator/2010/01/12/seven-priorities-for-epas-future/#more-636">http://blog.epa.gov/administrator/2010/01/12/seven-priorities-for-epas-future/#more-636</a>.

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 <a href="http://yosemite.epa.gov/R10/EXTAFF.NSF/Reports/2007-2011+Region+10+Strategy">http://yosemite.epa.gov/R10/EXTAFF.NSF/Reports/2007-2011+Region+10+Strategy</a> (last visited Feb. 12, 2010), and EPA's Region 10 Strategy for Enhancing Tribal Environments at <a href="http://yosemite.epa.gov/r10/EXTAFF.NSF/Reports/07-11+Tribal">http://yosemite.epa.gov/r10/EXTAFF.NSF/Reports/07-11+Tribal</a> (last visited Feb 12, 2010).

<sup>4</sup> *Id.* Pebble mine also raises issues that may require the assistance of EPA staff in other offices. <sup>5</sup> EPA's national priorities for enforcement and compliance for FY 2008 – 2010 and FY 2011 – 2013 (proposed) are at <a href="http://www.epa.gov/oecaerth/data/planning/priorities/index.html#new">http://www.epa.gov/oecaerth/data/planning/priorities/index.html#new</a>.

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."

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."

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

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

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

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

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

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

2006, Northern Dynasty Mines, Inc. (NDM)<sup>10</sup> filed, and then supplemented, nine applications with the Alaska Department of Natural Resources (ADNR), and then requested ADNR to suspend them. ADNR did so. Four applications sought to appropriate water. Five sought to construct tailings impoundment dams.<sup>11</sup> These nine applications were based *solely* on Pebble West. The surface area of the water of just two tailings impoundments, as then proposed, would have covered over ten square miles (6400 acres). "Beaches" of waste would have surrounded the impoundments created by five dams or embankments up to 740 feet high and several miles long.

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

Because a Pebble mine, associated facilities, and similar metallic sulfide mines could also have various direct, cumulative, secondary adverse effects in combination with other impacts over a vast area, our tribes recommend that EPA consider a wide geographic area of the Kvichak and Nushagak drainages for purposes of § 404(c), at least initially for a public process. Our reasons include: (1) the importance of the Kvichak and Nushagak drainages for fish, wildlife, and commercial, subsistence and recreational use of fish and wildlife; and the abundance of waters and wetlands that support fish, wildlife and public uses; (2) the location of the Pebble deposit at a divide between Upper Talarik Creek, which flows directly to Iliamna Lake (a significant rearing lake for sockeye salmon) in the Kvichak drainage, and the North and South Forks of the Koktuli River in the Nushagak drainage; (3) the large scale of the deposit and a Pebble mine; (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

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 <a href="http://viso.jrc.ec.europa.eu/pecomines">http://viso.jrc.ec.europa.eu/pecomines</a> ext/events/workshop/ProceedingsOrtaWorkshop.pdf.

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=N ews-Releases&\_Title=Northern-Dynasty-Anglo-American-Establish-5050-Partnership-To-Advance-Pebbl...

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

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

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; <sup>15</sup> (13) the ecological functions that salmon perform throughout their life cycle in marine and fresh waters; (14) the fact that juvenile salmon have been shown to be present in many waters within the Pebble claims where salmon had been undocumented previously for purposes of the state's Anadromous Fish Act; (15) the likelihood that a transportation route to Cook Inlet could implicate significant beach spawning of sockeye salmon in the north-eastern portion of Iliamna Lake; (16) the likelihood that a Pebble mine, its transportation corridor, and 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.

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

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

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

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

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

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

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

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

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

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

Letter, SW Alaska Tribes to EPA, re: 404(c)

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

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

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

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

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

NEPA regulations provide that an EIS must analyze and address any applicable state land use plan. 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. 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

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.

Letter, SW Alaska Tribes to EPA, re: 404(c)

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

## **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)

Letter, SW Alaska Tribes to EPA, re: 404(c)

## CONCLUSION

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Sincercly yours.

Date: 50410

Dennis Andrew, President New Stuyahok Traditional Council

P.O. Box 49

New Stuyahok, Alaska 99636

Enclosures (2)

Letter, SW Alaska Tribes to EPA, re: 404(c)

New Stuyahok Traditional Council

## CONCLUSION

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Sincerely yours,

Date: 5-10-10

goe Ongline Chilliak Vice president President Sergie Chukwak, President

Levelock Village Council

P.O. Box 70

Levelock, Alaska 99625

Enclosures (2)

Letter, SW Alaska Tribes to EPA, re: 404(c)

Levelock Village Council

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Sincerely yours,

Date: 5/11/10

Luki Akelkok, Přesidení

Ekwok Village Council

P.O. Box 70

Ekwiok, Alaska 99580:

Enclosures (2)

Letter, SW Alaska Tribes to EPA, re: 404(c)

Ekwok Village Council

## **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 hefore, and not after, PLP submits its permit applications, and hefore 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

Phomas Tilden, President Curyung Tribal Council

P.O. Box 216 531 D Street

Dillingham, Alaska 99576

Enclosures (2)

Letter, SW Alaska Tribes to EPA, re: 404(c)

Curyung Tribal Council

Page 8

TOTAL P.003

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

Enclosures (2)

Letter, SW Alaska Tribes to EPA, re: 404(c)

Koliganek Village Council

## **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)

## **APPENDIX**

An Abstracted List of Potentially Relevant Information
(This list assumes that EPA has access to its own agency documents, and therefore this list does not include such documents.)

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

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

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

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

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

Alaska Department of Natural Resources, *Bristol Bay Area Plan for State Lands* (2005), available at <a href="http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm">http://www.dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm</a> (last visited December 30, 2009).

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

Directorate General for the Environment and the Joint Research Centre, Workshop on Mine and Quarry Waste – the Burden from the Past (<a href="http://viso.jrc.ec.europa.eu/pecomines">http://viso.jrc.ec.europa.eu/pecomines</a> ext/events/workshop/ProceedingsOrtaWorkshop.pdf, last visited Jan. 25, 2010)

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

Duffield et al., Economics of Wild Salmon Watersheds: Bristol Bay, Alaska 15 at <a href="http://www.housemajority.org/coms/hfsh/trout\_unlimited\_report.pdf">http://www.housemajority.org/coms/hfsh/trout\_unlimited\_report.pdf</a> (Feb. 2007) (last visited Jan. 6, 2010).

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

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

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

Northern Dynasty Mines, Inc. (NDM), Pebble Project: Applications for surface and ground water rights, and initial applications for certificates of approval to construct dams (2006), available at <a href="http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/waterapp.htm">http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/waterapp.htm</a> (last visited December 30, 2009).

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

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

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

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

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

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

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

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

documents from Pebble Limited Partnership or Northern Dynasty on the nature of the ore body, (5) documents from Northern Dynasty submitted as part of its 2006 applications for water rights and approval of dams, (6) a recent study by Dr. John Duffield (University of Montana) of the economic values and job production associated with wild salmon producing watersheds of the Bristol Bay drainages, and (7) other related materials. Some of the links to PLP and NDM materials are no longer active or have been replaced by more up-to-date sources on PLP's webpages (see below).

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

bin/folioisa.dll/aac/query=[JUMP:'Title11Chap55']/doc/{@1}?firsthit

State of Alaska, Alaska Statutes, Title 38, Chap. 38.04 (land use planning and classification) at <a href="http://www.legis.state.ak.us/basis/folio.asp">http://www.legis.state.ak.us/basis/folio.asp</a>, and ADNR regulations (land use planning and classification), 11 AAC 55.010 -- .280 at <a href="http://www.legis.state.ak.us/basis/folioproxy.asp?url=http://wwwjnu01.legis.state.ak.us/cgi-http://wwwjnu01.legis.ak.us/cgi-http://wwwjnu01.legis.ak.us/cgi-http://wwwjnu01.legis.ak.us/cgi-http://wwwjnu01.legis.ak.us/cgi-http://w

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

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

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

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

## Aleknagik:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay rmp eis final.Par.39744 .File.dat/Map3-51 Aleknagik.pdf (last visited Jan. 7, 2010)

## Dillingham:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay rmp eis final.Par.16048 .File.dat/Map3-52 Dillingham.pdf (last visited Jan. 7, 2010)

## Ekwok:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.76842 .File.dat/Map3-53 Ekwok.pdf (last visited Jan. 7, 2010)

Letter, SW Alaska Tribes to EPA, re: 404(c)

## Igiugig

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.33049 .File.dat/Map3-54\_Igiugig.pdf (last visited Jan. 7, 2010)

## Iliamna:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.78607 .File.dat/Map3-55\_Iliamna.pdf (last visited Jan. 7, 2010)

## Kokhanok:

## Levelock:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.58501\_File.dat/Map3-59\_Levelock.pdf (last visited Jan. 7, 2010)

## Koliganek:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.56441 .File.dat/Map3-58\_Koliganek.pdf (last visited Jan. 7, 2010)

## Manokotak:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.65865 .File.dat/Map3-60\_Manokotak.pdf (last visited Jan. 7, 2010)

## Nondalton:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay rmp eis final.Par.36771 .File.dat/Map3-62 Nondalton.pdf (last visited Jan. 7, 2010)

## Pedro Bay:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay rmp eis final.Par.89854 File.dat/Map3-63 PedroBay.pdf (last visited Jan. 7, 2010)

## Platinum:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay\_rmp\_eis\_final.Par.4004. File.dat/Map3-64\_Platinum.pdf (last visited Jan. 7, 2010)

## Portage Creek:

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

## Port Alsworth:

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

New Stuyahok:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay rmp eis final.Par.90357 .File.dat/Map3-68 NewStuyahok.pdf (last visited Jan. 7, 2010)

Togiak:

http://www.blm.gov/pgdata/etc/medialib/blm/ak/afo/bay rmp eis final.Par.42891 .File.dat/Map3-69 Togiak.pdf (last visited Jan. 7, 2010)

Twin Hills:

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

**END** 

THE LAW OFFICE OF

## GEOFFREY Y. PARKER

Phone: (907) 222-6859 Fax: (907) 277-2242 E-mail: gparker@alaska.net

## 634 K Street Anchorage, Alaska 99501

May 7, 2010

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

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

Dear Mr. McLerran:

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

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

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

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

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

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

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

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

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

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

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

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

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

<sup>&</sup>lt;sup>2</sup> 40 CFR 230.1(a) (italics added).

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

<sup>&</sup>lt;sup>4</sup> 40 CFR 230.1(c) (italics added).

<sup>&</sup>lt;sup>5</sup> 40 CFR 230.1(d) (italics added). Wetlands are a "special aquatic site." 40 CFR Part 230, subpart E.

<sup>&</sup>lt;sup>6</sup> 40 CFR 230.11.

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

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

<sup>&</sup>lt;sup>9</sup> *Id*.

significance than direct effects. The Guidelines address effects on human uses of resources. In practice, this includes secondary effects on such uses. In practice, this includes secondary effects on such uses.

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

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

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

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

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

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

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

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

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

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

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

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

<sup>&</sup>lt;sup>17</sup> Duffield et al., at 84 - 85.

<sup>&</sup>lt;sup>18</sup> Duffield et al., at 107 - 108.

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

<sup>&</sup>lt;sup>20</sup> Id.

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

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

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

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

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

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

Duffield et al., at 15.

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

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

<sup>&</sup>lt;sup>24</sup> Id.

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

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

For purposes of Section 404(c) and the 404(b)(1) Guidelines, EPA may consider the quality of subsistence and recreational use and socio-economic impacts resulting from changes in subsistence and recreational use patterns.<sup>27</sup>

## A. Subsistence and Environmental Justice.

In the Bristol Bay drainages, the share of the population that is Alaska Native is relatively high at 70 percent, compared to Alaska as a whole, with 16 percent. Accordingly, subsistence is a major concern to the Tribes, and so, the Appendix to the Tribes's letter to EPA on 404(c) provides internet links to maps (used by the Bureau of Land Management) which identify subsistence use areas for the villages and communities in the area that use the Kvichak and Nushagak drainages for subsistence. The demographic aspects raise issues of environmental justice under Executive Order 12898. It requires that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on low-income and minority populations.

Most of the central provisions of State and federal subsistence laws were drafted nearly thirty years ago. Both provide two "tiers" of a subsistence preference (16 U.S.C. § 3114; AS 16.05.258), but they differ with respect to who can participate. Federal law limits subsistence on federal lands to *rural* Alaska residents. State law allows *all* Alaskans to qualify, preliminarily, for subsistence on non-federal lands.<sup>29</sup> Under both schemes, when the total harvest by subsistence and other users of a fish or game stock exceeds sustained yield, the Tier I preference restricts or eliminates non-subsistence users. When the subsistence harvest alone exceeds sustained yield, the Tier II preference is triggered and subsistence is restricted by statutory criteria that allocate subsistence opportunities. On federal lands, 16 U.S.C. § 3114 allocates subsistence opportunities by three criteria; (1) customary and direct dependence on the populations as the mainstay of livelihood; (2) local residency; and (3) availability of alternative resources. The State, however, must avoid local residency criteria as being unconstitutional under the Alaska Constitution. These distinctions in who can hunt and fish in particular situations have divided Alaskans and are known colloquially as the "subsistence dilemma."<sup>30</sup>

<sup>&</sup>lt;sup>27</sup> See e.g., USEPA, Recommended Determination pursuant to Section 404(c) Concerning the Yazoo Backwater Area Pumps Project, *supra* (portions address potential changes in quality of, and economic benefits derived from, fishing and hunting in the Yazoo Backwater Area).

<sup>28</sup> Duffield et al., at 11.

<sup>&</sup>lt;sup>29</sup> McDowell v. State, 785 P.2d 1 (Ak. 1989) (Alaska constitution bars State from limiting subsistence to rural residents).

<sup>&</sup>lt;sup>30</sup> A Pebble mine may increase pressure (which already exists) to revise federal subsistence law to be protect only Alaska Native people, and to apply it more broadly than only on federal land (*i. e.*, to Native corporation lands also). Congress probably could adopt a "Native only" subsistence provision under the Indian Powers clauses of the US Constitution, but the Alaska legislature cannot under the Alaska Constitution. Doing so would drive state and federal governments further apart on subsistence law, and would be very divisive among state residents. A proposed Pebble mine is likely to add to pressures to do so.

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

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

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

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

For reasons addressed in Part B below, additional visitors may not result in less, not more recreational expenditures.

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

## B. Sport Fishing.

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

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

USEPA, Recommended Determination pursuant to Section 404(c) Concerning the Yazoo Backwater Area Pumps Project, *supra*, at 65-67.

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

<sup>&</sup>lt;sup>34</sup>Duffield, et al., at 46 – 48 (large rainbow trout viewed as over 26 inches in survey). See also Jon Issacs & Associates, "Commercial Recreation Service Providers Study" (1986) for Bristol Bay Coastal Resource Serv. Area (focuses on Nushagak/Mulchatna drainage); D. A. Ackley, "An Economic Evaluation of Recreational Fishing in Bristol Bay, Alaska," Masters Thesis, UAA/Juneau (1988) (focuses on Kvichak/Naknek drainages; includes Iliamna Lake area). <sup>35</sup> The authors can provide a copy of the State's "Bristol Bay Area Plan Planning Regions,

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

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

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

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

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

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

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

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

## IV. Existence Value.

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

Sincerely yours

- 1 the

Geoffrex Y. Parket

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

Duffield, et al., at 55-56; see also *id.* at 50 (re distribution of expenditures).

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

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

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

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

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

Alaska Independent Fishermen's Marketing Association

P.O. Box 60131 Seattle, WA 98160 Phone/Fax (206) 542-3930

May 13, 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 Scattle, WA 98101



Re: Endorsement of Tribes' request that EPA initiate a public process under Section 404(c) of the Clean Water Act, regarding discharges related to potential metallic sulfide mining in the Kvichak and Nushagak drainages of Southwest Alaska.

Dear Ms. Jackson and Mr. McLorran:

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

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

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

Sincerely yours,

Harele

David Harsila President

# DOCUMENT PAGE BREAK

## EPA-1093

Patricia McGrath/R10/USEPA/US

07/01/2010 07:02 PM

To Phil North

cc Cara Steiner-Riley, David Allnutt, Linda Anderson-Carnahan, Marcia Combes, Mary Thiesing, Michael Szerlog, Mike Bussell, Phil North, Richard Parkin, Sally Thomas, Tami Fordham

bcc

Subject Re: Bristol Bay Options Paper

## Phil -

Attached are my comments. Give me a call if you have questions. I am planning on attending the RA briefing. Thanks for asking - Patty



## Bristol Bay Options Paper Final Draft-pm.doc

Phil North Attached is the latest version of the options pape... 06/30/2010 03:49:51 PM

From: Phil North/R10/USEPA/US

To: Cara Steiner-Riley/R10/USEPA/US@EPA, David Allnutt/R10/USEPA/US@EPA, Linda Anderson-Carnahan/R10/USEPA/US@EPA, Marcia Combes/R10/USEPA/US@EPA, Mary

Thiesing/R10/USEPA/US@EPA, Michael Szerlog/R10/USEPA/US@EPA, Mike Bussell/R10/USEPA/US@EPA, Patricia McGrath/R10/USEPA/US@EPA, Phil North/R10/USEPA/US@EPA, Richard Parkin/R10/USEPA/US@EPA, Sally Thomas/R10/USEPA/US@EPA, Tami Fordham/R10/USEPA/US@EPA

Thomas/R10/USEPA/US@EPA, Tami Fordham/R10/USEPA/US@EPA

Date: 06/30/2010 03:49 PM Subject: Bristol Bay Options Paper

Attached is the latest version of the options paper for Bristol Bay/Pebble Mine. The main edits are the addition of a guess at resource needs and the beginning of an information available/data gaps list. If you have edits to suggest please get them back to me as soon as you can.

The only time the RA is available to discuss the options paper before he visits Bristol Bay is Thursday, July 8 at 11:00AM PST. Most of those on the distribution list for this message are not available at that time.

[attachment "Bristol Bay Options Paper Final Draft.doc" deleted by Patricia McGrath/R10/USEPA/US]

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<sup>&</sup>quot;To protect your rivers, protect your mountains."

## ATTORNEY-CLIENT WORK PRODUCT – NOT SUBJECT TO RELEASE UNDER FOIA – DELIBERATIVE PROCESS - PREDECISIONAL

## Options for EPA Involvement in Mining Activity in the Bristol Bay Watershed June 8, 2010

#### I. Issue:

There is a very large copper, molybdenum and gold sulfide ore deposit located at the headwaters of the Koktuli River and Upper Talarik Creek of the Nushagak and Kvichak watersheds of Bristol Bay, in southwestern Alaska. Bristol Bay is arguably the most important watershed in the world for wild salmon. It produces 8% of the world's Pacific Salmon, all of them wild fish. The Nushagak River and Kvichak River watersheds, by themselves, produce ½ of these fish. Bristol Bay has the largest sockeye salmon fishery in the world. The Yupik Alaska Native culture is a salmon-based culture supported by these fish throughout the region. The estimated value of this fishery is approximately \$500 million per year. <sup>1,2</sup> This is a sustainable resource that has provided for people for thousands of years past and can provide indefinitely into the future if the integrity of the watershed is maintained. These salmon also provide critical support to both the terrestrial ecosystems of the watersheds and the marine ecosystems of the North Pacific Ocean<sup>3</sup>.

Although the mining company (Pebble Limited Partnership) has not submitted permit applications for developing the ore deposit, it has developed draft mine plans and has provided other information that indicates that if this large ore deposit is developed, it could be one of the largest mines in the world. The with an estimated gross value of the mine could be \$700 billion or \$700 million per year for approximately 100 years. If fully developed it would be 6 to 10 times larger than the Bingham Canyon Mine in Utah, selfreported to be the largest man made excavation on earth. 4 Mining activity would be comprised of an excavation with a surface foot print of 6 square miles and extraction up to a mile deep, a mill site, a series of transportation-related infrastructure, and 4 to 10+ billion tons of waste stored in impoundments. Thousands of acres of wetlands and tens of miles of streams could be permanently lost during construction of a mine. Pollution from operations following construction could include pipeline spills of metals concentrate, seepage from tailings impoundment and waste rock dumpsleaks. Acidgenerating dust and road runoff, if not adequately managed, could impact nearby salmon bearing waters during the effective mine life, which could be 50 to 100+ years. There is also the possibility of shipping-related spills of metals concentrate into marine waters. In the long term the open pit mine and <u>large</u> waste disposal sites would have to be

Comment [PM1]: May want to add the basis for these costs. E.g., based on current metals prices and average copper, gold, moly grades?

<sup>&</sup>lt;sup>1</sup> Duffield, J.W. et al. 2007. Economics of Wild Salmon Ecosystems: Bristol Bay, Alaska. USDA Forest Service Proceedings RMRS-P-49.

<sup>&</sup>lt;sup>2</sup> Alaska Department of Fish and Game. 2009. 2009 Bristol Bay Salmon Season Summary. Alaska Department of Fish and Game, Anchorage, Alaska.

<sup>&</sup>lt;sup>3</sup> National Oceanographic and Atmospheric Administration, Alaska Fisheries Science Center, Seattle, Washington, personal communications with Dr. Sarah Gaichas and Dr. Kerim Aydin by Phil North, March

<sup>&</sup>lt;sup>4</sup> Kennecott Utah Copper web site last accessed May 12, 2010, http://www.kennecott.com/visitors-center/

maintained in perpetuity at the top of these ecologically unique watersheds in a seismically active area in the face of climatic uncertainty.

EPA has been advising on the design of environmental baseline studies, along with other federal, state and local agencies, including: US Fish and Wildlife, National Marine Fisheries Service (NMFS), Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and the Corps of Engineers. Based on this involvement, and EPA's review of the existing literature and reports, EPA Region 10, Aquatic Resources Unit believes that:

- Bristol Bay, its watersheds, and aquatic resources are irreplaceable natural and economically essential resources that can provide benefits to countless generations to come; benefits that far exceed those derived from the one time extraction of minerals; and
- That large-scale filling of wetlands and stream channels that support the salmon resources of Bristol Bay and the development of a mine, with associated infrastructure, acid generating waste rock and tailings ponds, poses threats that can significantly and unacceptably damage this unique and essential resource.

As a result, EPA Region 10, Aquatics Resources Unit, staff have identified the Nushagak and Kvichak watersheds of Bristol Bay as candidates for a Section 404(c) prohibition or restriction under the Clean Water Act.

Under Section 404(c) of the Clean Water Act, EPA is authorized "to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and [the Administrator] is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas....The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection. 5" Although EPA generally waits until a permit application is pending before it makes a 404(c) determination that is neither a requirement nor an intent of the process 6.7. EPA can make such a determination before any application is submitted 8.

If EPA determines, given the information it has at hand, that there is "likely to be" an unacceptable adverse impact to the aquatic ecosystem, then EPA's regulations allow EPA to proceed under Section 404(c) without the permit or NEPA process. Therefore, EPA could choose to "prohibit the designation of an area as a disposal site" for any purpose, or it could restrict the use of an a area as a disposal site for a particular purpose such as the

<sup>6</sup> Federal Register Vol. 44, No. 50, Pages 14578 through 14579, Tuesday, march 13, 1979, Preamble to the proposed rule: Part 231 – Denial or Restrictions of Disposal Sites – Section 404(c) Procedures.

<sup>&</sup>lt;sup>5</sup> 33 U.S.C. § 1344(c)

<sup>&</sup>lt;sup>7</sup> Federal Register Vol. 44, No 196, Pages 58076 through 58082, Tuesday, October 9, 1979, Preamble to the final rule: Denial or Restriction of Disposal sites; Section 404(c) Procedures.

<sup>8 40</sup> C.F.R. Part 231.1

<sup>9 40</sup> C.F.R. Part 231.2(e)

large-scale mining of sulfide ores, or it could *restrict* the use of an area as a disposal site by placing conditions on disposal, location, etc. that will adequately prevent unacceptable adverse impacts to the resource.

There is a wide breadth of information already available which identifies potentiallikely adverse impacts from sulfide ore mining. Region 10's Aquatic Resources Unit (ARU) believes that this information, as it relates to Bristol Bay and its watersheds, is sufficient to make a 404(c) determination now. We would like to summarize this information and gather some additional information from NMFS on the aquatic resources, USGS on geochemistry and seismology, and perform further legal analysis on identifying appropriate restricted areas and activities. This additional work will require a commitment of ARU and other Region 10 staff and/or contractor resources and time over the next several months. We believe that this additional information and effort would assist in determining whether a 404(c) determination is appropriate at this time and would save significant resources over the long run. NMFS, NPS and FWS staff in Alaska have unofficially endorsed EPA initiating a 404(c) action.

Listed below are options for action currently available to EPA, the pros and cons and the resource needs of each option.

**Comment [PM2]:** If unofficial, not sure if it should be mentioned in this paper. Just a question

## II. Options:

## 1. Participate in a permit and NEPA process as they unfold followed by a 404(c) determination

- a) Clean Water Act Section 404 permit
  - Pebble Limited Partnership (PLP), a company interested in developing this ore body, has said that they expect to submit Clean Water Act (CWA) Section 404 permit applications in 2011.
  - A federal 404 permit is required from the Army Corps of Engineers.
  - EPA's role would be to review the project and comment on its compliance with the 404(b)(1) Guidelines
  - Potential outcomes include:
    - Provide recommendations on avoidance, minimization and compensatory mitigation for fill discharges.
    - Include "elevation language" in our comments on the permit public notice that reserves our "rights" to elevate disagreements to higher authority than the Alaska District (404(q)); possibly elevate the permit decision.
    - 3. Use our 404(c) authority to veto the Corps' 404 permit.

## b) NEPA

 EPA's role is to review and comment on the technical merit of the EIS and compliance with NEPA regulations.

3 of 8

- 1. EPA could be a lead or co-lead with the Corps.
- EPA would rate the project according to the quality of the EIS and the environmental impact of the project. EPA could rate the project environmentally unacceptable and recommend that no action be taken.
- EPA would have the option of elevating the Corps' NEPA decision to the Council on Environmental Quality.

### Pros:

- The permit and NEPA processes could generate a great deal more detailed environmental information and analysis upon which to base a decision
- The permit and NEPA processes are public and allow for two
  comment periods on the scope of the EIS ands on the merits of the
  projects versus potential environmental impacts.
- EPA will maintain its authority for a 404(q) and 404(c) throughout this process.
- EPA may gain more support for a 404(c) position from other agencies and the public as more information we ould be available about the project and potential impacts.
- Positions EPA to be able to have two opportunities to review and comment on any proposed projects and potentially have more influence on the project design as a cooperating agency.

### Cons:

- The permit and NEPA processes weould likely take at least several years to complete.
- The 404(c) regulations recommend that a "q" process be completed before a "c" process is initiated, likely engaging the project team for additional years.
- The EPA has no authority to compel the Corps or the applicant to collect specific information, however, we could become a cooperating or co-lead NEPA agency that could give us more of that authority.
- EPA could be accused of "bad faith" if it chose to pursue a 404(c) action after the permit process had played out
- To negotiate the regulatory process a great deal of human and other resources will be required by all parties involved.
- PLP would likely spend <u>hundreds tens</u> of millions of dollars on necessary environmental studies.
- The Alaska District Corps office has little experience managing the preparation of EISs.
- We can anticipate that significant Region 10 ARU, ORC, OEA and ERSMU FTE would have to be assigned to this unusually large and complex project for an extended review period.

 EPA Region 10 Aquatic Resources Unit believes that there is already sufficient information to make a recommendation that the Nushagak and Kvichak River watersheds should be restricted for discharge of dredged or fill material. Waiting to make the determination does not seem necessary or a prudent use of anyone's resources.

Estimated Resources Needs: We estimate that the project team (up to six staff) would be engaged for several years to a greater and lesser extent over that time. One each of ERSMU and ARU staff would be involved to a substantial extent over most of that time. Other team members with special technical expertise would be involved as the expertise was needed (weeks at a time).

## 2. <u>Dedicate resources to developing an informal evaluation and record for potential 404(c) determination</u>

- a) Dedicate staff and contractor time to compile existing information on the Bristol Bay watershed and information relevant to sulfide-ore mining, and to identify any additional analyses that might be needed.
- Engage USGS to assist in the analysis and risk assessments of geochemical, hydrogeologic and seismic information existing for the Bristol Bay area.
- c) Engage NOAA and USFWS to assist in the analysis of climate information for Bristol Bay and the ecological implications of fisheries information for Bristol Bay and associated waters (Bering Sea and North Pacific).
- d) Develop a formal impacts evaluation for sulfide ore mining in the Bristol Bay watershed.
- e) Have ORC evaluate the potential for a "takings" claim and assist in evaluating restricted areas or activities.
- Move forward with 404(c) determination, if warranted, after additional information is gathered to support EPA's analysis.
- g) Could alternatively enter the NEPA process if/when triggered by a 404 permit application.

## Pros:

 Enables EPA to act early if deemed appropriate, saving all involved parties a great deal of time and money.

- Enables EPA to more fully evaluate our options on this high priority issue, before committing to a course of action, while there are no externally imposed time constraints.
- Proactively develops a body of knowledge for all future potential actions in this critical watershed (404 oversight, NEPA review and 404(c)) without causing a political backlash.
- Allows EPA to put the relevant information together and ensure that it is adequately quality assured/quality controlled to support decision making.
- Allows EPA to identify vulnerabilities, both legal and technical, prior to making a recommendation or decision.
- The sooner and more completely this step is done, the fewer long-term EPA resources will be needed.
- Doesn't preclude us taking part in NEPA process in future when triggered by the 404 permit application.

### Cons:

 Requires dedication of substantial EPA resources for the next 3 to 6 months.

<u>Estimated Resource Needs:</u> We estimate that 2 FTEs (1 person full time and others for specific parts), plus one attorney part time, to evaluate takings and options for scope of a 404(c) action, would be dedicated to this effort for the next 6 months. In addition, a contract would be established with USGS or an EPA contractor.

## 3. Initiate 404(c) process – Intent to Issue Notice of Proposed Determination

- a) Send "15 day" letter to Corps of Engineers stating that EPA is considering invoking Section 404(c) of the Clean Water Act.
- b) Initiate discussions with PLP about the risk of adverse effects on the Nushagak and Kvichak watersheds and fisheries. Solicit information from them that would rebut our conclusions.
- Initiate government to government consultation with Nushagak and Kvichak tribes about the nature and scope of a 404(c)
- d) Dedicate staff and contractor time to compile existing information on the Bristol Bay watershed and information relevant to sulfide-ore mining, and to identify any additional analyses that might be needed.

- Engage USGS to assist in the analysis of geochemical, hydrogeologic and seismic information existing for the Bristol Bay area.
- f) Engage NOAA to assist in the analysis of climate information for Bristol Bay and fisheries information for Bristol Bay and associated waters (Bering Sea and North Pacific).
- g) Develop a formal impacts evaluation for mining in the Bristol Bay watershed.
- h) Have ORC evaluate the potential for a "takings" claim and assist in evaluating restricted areas or activities.

## Pros:

- Develops a body of knowledge proactively for all future potential actions (404 oversight, NEPA review and 404(c)), but does not commit to a course of action.
- The burden of proof that the risk of adverse effect is reasonable would be on PLP or any other project proponent.
- Allows EPA to initiate government to government relations with tribes to seek develop an action for the area acceptable to the tribes.
- Allows EPA to adequately quality control information that supports decision making.
- Allows EPA to identify vulnerabilities, both legal and technical, prior to making a recommendation or decision, so that any record can then be developed which will support decision making.
- Allows the development of a proactive public outreach strategy.
- The sooner and more completely this step is done, the fewer long term EPA resources will be needed <u>assuming the outcome is that a 404© action is justified.</u>
- Agencies throughout the federal, state and tribal governments would be relieved of the burden of staffing the long term effort of NEPA, Section 7 consultation, and 404 review and various state laws and programs.
- PLP or any other project proponent could avoid spending tenshundred
  of millions of dollars on a project EPA <u>ARU</u> program staff believe
  should be vetoed in the end.
- EPA resources required for relatively shorter period of time, however, see "Cons" below regarding lawsuits.
- If a decision is made to pursue 404(c) then
  - Bristol Bay fisheries and the economies and ecosystems that depend on them would be protected from this source of damage.
  - The wildlife resources dependent on Bristol Bay would be protected from this source of damage.

Comment [PM3]: Not sure what this means.

## Cons:

- EPA will become the target of inevitable lawsuits from the State of Alaska, PLP (or another project proponent), and others.
- This will require legal analysis of takings issues.
- EPA will be accused of killing the project before the permit applications are submitted and NEPA environmental impacts analysis is performed.
- Requires dedication of substantial EPA resources for the next 1 to 2 years.

<u>Estimated Resource Needs:</u> We estimate that 2 FTEs would be required for 1 to 2 years, plus attorneys, OEA staff, outreach staff and others with specific expertise at specific times (weeks at a time).

## Currently identified information and data gaps:

We have the ability to predict environmental impacts of

Available information

 Fisheries information is readily available from Alaska Department of Fish and Game and other sources. This includes subsistence, commercial and sport fisheries.

Waste system reliability studies by environmentally oriented consultants
 (Kuipers and Maest).

- Tailings dam reliability studies by the United Nations, industry and others.
- Acid generation and control descriptions by EPA and others.
- Limited acid generation potential of the ore body is available from PLP in the form of two charts with data points.

Data gaps and needed analysis

- Geochemistry, as noted above, is limited.
- Hydrogeology
- Seismology
- Climate change
- NMFS has provided a limited analysis of the role of Bristol Bay salmon in the North Pacific ecosystem. An expanded and more detailed description would be helpful.
- Tailings dam failure risk over time into perpetuity under combined disturbance scenarios of weather and seismicity.
- We have no information on how PLP would close the tailings impoundment (whether it would be water retaining or dry); therefore difficult to determine potential long-term impacts.
- Failure rates of concentrate pipelines.

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**Comment [PM4]:** I deleted this since this study was done for an environmental group and is not without bias.

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## **Microsoft Outlook**

From:

Doug Limpinsel < Doug.Limpinsel@noaa.gov>

Sent:

Friday, August 27, 2010 10:32 AM

To: Subject: Jeanne Hanson IMPORTANT

Jeanne.

As you know, I have been in communication with Phil North at the EPA.

The EPA (Alaska Region 10 to their DC Administrator) has internally been discussing the possibility of exercising their Section 404c authority regarding the development of the proposed Pebble Mineral Prospect.

Currently, all EPA staff in this discussion feel they should exercise Section 404c, though the timing of when exactly to initiate the process remains to be determined.

Phil asked me to provide you with the following outline of the Section 404c Veto Process for our use and discussion. <a href="http://www.epa.gov/owow/wetlands/pdf/404c.pdf">http://www.epa.gov/owow/wetlands/pdf/404c.pdf</a> It should be noted that

between Step 1 (Intent to Issue Notice of Proposed Determination) and Step 2 (Notice of Proposed Determination) the Phil/EPA is proposing an "informal" meeting between the Federal Agencies to discuss and flush out each of the agencies concerns regarding the Pebble Project, the 404c Process, as well as determine each outside agencies level of support and/or participation.

So, the time has arrived. We (You and I) should discuss how to present this up the chain. In this case, Phil is asking us to informally inform beyond Jon Kurland to our Regional Administrator (Balisinger) and have him prepared to run it higher should this come to light, which currently is a very likely scenario.

We should consider the following...

If asked, would NOAA-HCD meet with EPA and other Federal Agencies to discuss; 1) concerns regarding potential impacts of the project, and 2) discuss the section 404c process.

If the EPA were to formally request NOAA-HCD assistance in developing and drafting a Biological Assessment, would we provide manpower and expertise toward that effort.

If asked to comment publicly, how will NOAA-HCD come out publicly regarding EPA's action.



### **EPA** coms

To: Phil North/R10/USEPA/US@EPA

From: Doug Limpinsel < Doug.Limpinsel@noaa.gov>

Date: 08/30/2010 09:43AM

Subject: Your Request - Update and additional thoughts...

Phil,

As requested we briefed up the chain...

- 1) Jon Kurland our director (NOAA-HCD) will brief our NOAA Alaska Regional Administrator Jim Balsinger and his deputy Doug Mecum. Jim Balsinger will likely brief no higher (Eric Schwab and NOAA administrator Dr. Jane Lubchenco in DC) until we get some kind of word that EPA's Lisa Jackson is going to 1) implement sec 404c and/or 2) request NOAA's assistance and/or input.
- 2) NOAA-HCD (Jeanne, Jon, and/or I) will meet with EPA to discuss the issues and our concerns as well as the EPA Section 404c process, anywhere you chose, either here in Anchorage or in Seattle.
- 3) If formally requested we (NOAA/NOAA-HCD), could participate in developing/drafting a Biological Assessment of the marine ecosystem, habitat and species within our jurisdiction and/or according to the Magnuson-Stevens Act and its associated authority. We can do so on the premise of inter-agency cooperation, with the intent to remain neutral and preserving our ability to officially comment during the Permitting Process and NEPA review, if it should go that far.
- 4) Kurland asked me what I thought we would be getting into should EPA request NOAA assistance in developing and drafting a Biological Assessment for a Sec 404c. This is what I told him according to what I had seen in the Bayou Aux Carpes docs....

To paraphrase - The BioAssesement, will essentially contain two parts,

App-100

## INTERNAL DELIBERATIVE DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY DISCLOSURE AUTHORIZED ONLY TO CONGRESS FOR OVERSIGHT PURPOSES

1) Specific to what we know is in Bristol Bay, call it an inventory of the marine habitat, marine species, and our current knowledge of ecosystem processes in the Bristol Bay watersheds, and 2) followed by a discussion section addressing current scientific understanding of related ecosystem processes associated with the area. A sort of discussion and/or literature review of associated science topics.

I also mentioned to Jon much of this was already being complied on the side as a back burner task, not only for an EPA effort should it become a reality, but also for the South West Salmon Habitat Partnership effort.

Phil,

Slightly Different Topic ...

1) In my comment to you on Friday, I thought I should provide some explanation for my saying "I would probably not participate". Let me clarify, I would participate, or at least attend, but based on what I thought you said (can't say Pebble), I probably wouldn't have much to say.

Specifically, your thought, is to discuss the "science and technology of mining"? Is the mining industry and processing technology advanced enough, such that this (don't say Pebble) mineral prospect can be developed with predictable minimal and/or no impact? Of course I'm interested! But, its sounds as though the EPA will put a box around the discussion. Do not mention, Hydrology? Volume of waste? Geologic time? Environmental Influences? etc. So I guess I should have said, I will attend, but wouldn't have much to say if we can not consider the influences of all these variables on the mine science and technology.

Truthfully, I believe the science is there in the sense that, the act of dewatering, digging a hole, grinding the rock, and the chemistry of extracting and processing the ore, and even waste disposal is there. At least on paper, or in a lab, or on a relatively small scale, in a controlled environment. But the science and technology, is essentially the geology, chemistry and hydrology, all of which is site specific and under environmental influence. I don't think you can discuss the science and technology without considering the site, its size and the scale, environmental influences, as well as future cumulative effects, which are all site specific.

- 2) So, has PLP perfected transporter technology? Unless we can beam the minerals out of the ground and replace it with an inert material, I don't think anything changes...
- 3) Obviously, the EPA cat is out of the bag. But a thought I have, is the realtionship between Doug Mecum (current Deputy Director of NOAA Fisheries Alaska Region) who used to be a director for ADFG, who personally knows Denby Loydd (State Commissioner) and Ken Taylor (now the Pebble Environmental Rep). I can't help think any mention or suggestion of NOAA assisting EPA will get back the state and pebble before the task is complete. Will it matter?

## INTERNAL DELIBERATIVE DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY DISCLOSURE AUTHORIZED ONLY TO CONGRESS FOR OVERSIGHT PURPOSES



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	1. Proponents will have spent tens of millions of dollars.  2. Little EPA involvement in determining information to be collected and analyzed.  3. If EPA vetoes the resulting permit, only that project would be prohibited, potentially setting up subsequent rounds of permitting, vetoing, etc.  4. Political backlash will be much worse after NEPA and 404 processes.	<ol> <li>Never been done before in the history of the CWA.</li> <li>Immediate political backlash from Alaska.</li> <li>Immediate dedication of resources, however, we would refocus work to address highest priority.</li> <li>Litigation risk.</li> </ol>
Bristol Bay 404(c) Discussion Matrix HQ Briefing 9/08/2010	1. Traditional process 2. Permit and NEPA processes will generate considerable information informing the decision.	<ol> <li>Preamble to the regulations expresses         preference for advance 404(c) action.     </li> <li>A proactive 404(c) will provide the regulated community clarity on what can and cannot be permitted allowing for more efficient and timely development of permitted projects.</li> <li>An advanced process can facilitate targeted information collection and better planning by project proponents.</li> <li>Promotes sustainability goals. Can serve as a model of proactive watershed planning for sustainability. Similar to "alternative futures" watershed planning being used in Region 10.</li> <li>Responsive to Tribal concerns.</li> </ol>
	I. Timing A. During the permitting process	B. Proactive before permit applications

Draft – Deliberative INNERRALDBEHBERRATIVE DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY DISCLOSURE AUTHORIZED ONLY TO CONGRESS FOR OVERSIGHT PURPOSES

II Praces	Pros	Cons
A. Regulatory decision	1. Established legal procedure. 2. EPA control of the process and decision.	1. There is no real public discussion – public involvement is to comment then sue if they have the
making mode – 404(c) process	•	resources (NEPA, 404 permit, 404(c).  2. EPA would have less control of the "spin" and political debate.
B. Inclusive	1. EPA can begin the process in a neutral	1. Possible FACA complications, however, process
public	position, collect information, provide	
discussion : 1) Address	information to public, and building a position iteratively.	<ol> <li>Longer umerrame than Just starting the 404(c)</li> <li>process</li> </ol>
three key	2. Starting in a neutral position can deflect	3. More Resources
questions		
2) Hold three	3. Building a position iteratively by breaking the	
public information	process into questions to be addressed can help build a mublic position and derail	
sessions	opposition.	
3) Develop	4. Can involve State and Tribes upfront and	
decision	work to meet their needs.	
document for		
RA as output		
i. As part of	1. Established legal/regulatory	1. Sets precedent for future 404(c) actions.
the 404(c)	process/framework	2. Not adhering strictly to the regulation.
process		
ii. Leading	1. Starts in a neutral position	1. May have to address complications in representing
to a decision	2. Open and transparent process leading to a	36 Tribes.
whether to	public recommendation.	
initiate the	3. Helps to develop a stronger record upfront.	
404(c) process.	4. Expands on Lisa Jackson's priorities -	
	Protecting America's waters; Expanding the	
•	Conversation on Environmentalism and	
	working for Environmental Justice; and building strong State and Tribal Partnerships	





## Phil North/R10/USEPA/US 09/14/2010 04:19 PM

To gparker@alaska.net,

CC

bcc

Subject Fw: Thoughts for the Bristol Bay discussion tomorrow

Phillip North
Ecologist
Environmental Protection Agency
Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax 260-5992
north.phil@epa.gov

"To protect your rivers, protect your mountains."
----- Forwarded by Phil North/R10/USEPA/US on 09/14/2010 12:14 PM -----

From:

Phil North/R10/USEPA/US

To:

Michael Szerlog/R10/USEPA/US@EPA, Richard Parkin/R10/USEPA/US@EPA

Date:

09/14/2010 11:48 AM

Subject:

Thoughts for the Bristol Bay discussion tomorrow

#### Rick and Michael,

I hope that at this point everyone has gotten their minds around the idea that our focus is on the resource and not on any particular project. To that end, here are some thoughts about how I might approach a 404c action. The landscape unit that supports the resource we are discussing is the Bristol Bay watershed. So initially it seems that area should be the target of our 404c action. During the process of developing our proposed determination we would refine our target area based on the need for protection.

Not to be predecisional, but looking ahead, of the six Bristol Bay watersheds all but the Nushagak and Kvichak are mostly federal conservation land (wildlife refuge or national park). Nearly all of the Nushagak and much of the Kvichak are state or private land (including tribal), open for development and with little land use planning that targets protection of aquatic resources. And these two watersheds produce half of Bristol Bay's salmon. So far there are two types of development that have been identified in State of Alaska planning documents that could have significant adverse effects on aquatic resources. The first is what drew our attention here, mining. The second is road building. The State of Alaska has outlined an extensive road system that does not currently exist. If it was constructed as proposed it would cause significant adverse effects.

I think it is important to keep in mind that the loss of aquatic resources we have experienced around the country has been incremental. No one project caused the loss of a fish population. Yet, in spite of nearly 40 years of fairly aggressive water protection, we have many populations of endangered salmon and other aquatic organisms. The poor state of our aquatic resources happened cumulatively, one project at a time. Bristol Bay will be no different. While one large highway project or one mine will cause a significant adverse effect, it probably will not kill the resource. A big project like Pebble would be a big blow by itself (not to mention seven more Pebbles), but it is the accumulation of mines and highways, and all the associated residential and commercial development enabled by the larger scale developments, that will ultimately cause the demise of the resources we are targeting.

So a 404c that targets the primary habitat of the resource we are trying to protect, salmon, is a logical approach. First at the specific habitat level by prohibiting discharge in stream channels and the riparian (or adjacent) wetlands that most directly support them. Second by initially addressing Bristol Bay as a whole then narrowing to those watersheds that are at risk.

I thought these might be useful ideas if you get into the weeds tomorrow.

Phil

PS - Michael, my computer system is still not 100%, my phone is not able to play back phone messages. But I saw that you called.

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"To protect your rivers, protect your mountains."

## DOCUMENT PAGE BREAK

STATE CAPITOL PO 80x 110001 Juneau, Alaska 99811-0001 907-465-3500 fax: 907-465-3532



550 West 7th Avenue #1700 Anchorage, Alaska 99501 907-269-7450 fax 907-269-7463 www.Gov.Alaska.Gov Governor@Alaska.Gov

September 21, 2010

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

Dear Administrator Jackson,

I am writing regarding the petition your agency received from six federally recognized tribes to initiate the Clean Water Act Section 404(c) process to prohibit or restrict discharges of dredged or fill materials, including mine tailings, within the watersheds that would include the Pebble Mine. I ask that you decline to invoke Section 404(c) at this time for reasons I will explain.

Let me begin by assuring you that we share a goal of protecting the waters, wetlands, fish, wildlife, fisheries, subsistence, and public uses of the Bristol Bay watershed. This area is home to bountiful natural resources and beauty including vast runs of sockeye and other pacific salmon that support immensely valuable commercial, subsistence, and sport fisheries. As Governor, I will do everything in my power to see that any new development fully protects the resource values of the area, and does not come at the expense of what we have today.

While I understand and share the petitioners' desire to protect the resources in Bristol Bay, I disagree that invoking the 404(c) process at this time would contribute to that goal. At best, it would waste agency and public time and resources. At worst, it would work against our mutual aims. I offer the following thoughts for your consideration.

A premature 404(c) determination effectively prohibiting mining in the area would impinge on State land use planning authority. Much of the land in the Bristol Bay area belongs to the State of Alaska. We have completed several iterations of land planning for these lands including exhaustive public outreach and deliberations to find a balance between competing interests and potential land uses. While we recognize that initiating the 404(c) process does not necessarily lead to a particular outcome, even the possibility that the process would conclude with a prohibition against mining over vast expanses of State lands causes us great concern. Federal preemption of traditional State land use authority is an alarming prospect to say the least. To start with, it would undo years of planning effort, but the effects do not stop there. There has been tremendous investment in the area based on the potential for mineral development. We cannot fathom the liability and legal challenges that could accompany

The Honorable Lisa P. Jackson September 21, 2010 Page 2

an unprecedented, after-the-fact determination by the federal government that mineral development from these State lands is no longer viable.

Clean Water Act Section 404(c) offers no protections beyond those included in the Clean Water Act Section 404(b)(1) permit process. The regulations that implement the two parts of the Clean Water Act include virtually the same prohibitions, and call for virtually the same analyses and findings. Where Section 404(c) rules prohibit "unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas," the Section 404(b)(1) rules prohibit "significantly adverse effects . . . on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites" as well as "recreational" and "aesthetic" "values." The prohibitions and standards are very similar. The difference, of course, is that you are being asked to invoke Section 404(c) now ahead of any environmental planning and permitting processes, whereas the Section 404(b)(1) process would come later as part of the permit process for Pebble or another mine. The fact remains that Section 404(c) does not offer any more protection for area resources than does Section 404(b).

The record is currently insufficient to support the findings demanded by the 404(c) process, and could not begin to approach the record that will exist upon completion of the National Environmental Policy Act (NEPA) and permit processes that would be required for new mine development. As already mentioned, the 404(c) process hinges on the Environmental Protection Agency (EPA) deciding whether there will be "unacceptable adverse impacts" on "municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." The environmental planning and permitting process for the Pebble Mine alone will necessarily produce volumes of studies and information that would allow for fully informed decisions about potential impacts from mining in the area.

Not enough is known about mine plans in the area to gauge impacts as required by the 404(c) process. State and federal agencies have yet to receive designs or permit applications for the Pebble Project, or any other major mine in the Bristol Bay area. Without a specific proposal, EPA cannot evaluate the potential impacts or risks from the project. We do not know where facilities would be located, which wetlands might be impacted, or what the characteristics of the dredged or fill material would be.

A meaningful 404(c) process cannot be concluded in the time frame envisioned by the regulations. While the 404(c) process can be initiated before receipt of a permit application, the normal course would begin with a notice of a proposed determination by the Regional Administrator and conclude with a final determination by the Administrator approximately five months later. We recognize that time frames can be extended for good cause, but doubt that anyone envisioned extending the process over the multiple years it would take to collect information, complete the impact analyses, and develop a sound record on a par with what we could expect from the NEPA and permit processes for a new mine development proposal.

The 404(c) process would short change public participation. The public notice and opportunity for comment and hearing associated with the 404(c) process could not rival the outreach, education, consultation, and other public involvement that would occur should the Pebble Mine or another mine advance to the NEPA and permitting phase.

The Honorable Lisa P. Jackson September 21, 2010 Page 3

A premature 404(c) determination effectively prohibiting mining in the area would disproportionately impact rural residents and Alaska Natives. Approximately 70 percent of area residents are Alaska Native (2009). Seventeen percent fall below the poverty level (2008). The area has seen an 18 percent population decline in the last ten years. Knowing of your keen interest in the effects of EPA decisions on disadvantaged populations, we hope you would take into account that a 404(c) decision to preclude mining in this economically depressed region would abruptly and conclusively deny area residents any opportunity to avail themselves of the benefits they might seek from responsible mining.

The intended purpose and true utility of the 404(c) process is in addressing actual or imminent adverse effects where the NEPA and permit processes have failed or where there is reason to believe that they will fail. In essence, the 404(c) process is best used as a backstop for the other applicable provisions of Section 404, including application of the 404(b)(1) guidelines and the interagency coordination and dispute resolution procedures developed pursuant to 404(q). There is no purpose or advantage to initiating the process now.

For these reasons, I firmly believe initiating a 404(c) process would be ill-advised and potentially contrary to our shared goal of protecting area resources. I would appreciate your taking our concerns into account. If there is anything else we can do to assist you, please contact my office at 907-465-3500.

Sean Parnell Governor

cc:

The Honorable Lisa Murkowski, U.S. Senate
The Honorable Mark Begich, U.S. Senate
The Honorable Don Young, U.S. House of Representatives
Dennis McLerran, Regional Administrator, EPA Region 10
John Katz, Director State and Federal Relations, Office of the Governor





## Phil Brna/R7/FWS/DOI 09/23/2010 11:14 AM

To Frances\_Mann@fws.gov

cc Ann Rappoport/R7/FWS/DOI@FWS

bcc

Subject Pebble and 404c

I spoke with Phil North. He has now briefed people in EPA all the way up to the assistant administrator. He believes EPA leaders have decided to proceed and they are just deciding when. They say in the next "couple of weeks" but it will probably be after the November election. Trout Unlimited has been talking with many congress people and agency folks at the DC level about this as well. He is sending me contact info for the TU person so we can talk with them. I want to find out who they are talking with at the Service and DOI. Also, Bristol bay commercial fisherman have sent a letter to over 150 fishing groups in the lower 48 and they are getting support to push 404c and oppose pebble. So far he thinks senators and representatives from Washington and Oregon are on board.

Phil says DC is opposed to his plan to do a year of outreach before they make a decision. He thinks they are just going to do this in accordance with the regs and as quickly as they can.

He thinks it is important we proceed with getting regional support. If we get that, Jeff should be talking with Rowan and the group in DC. Lets go ahead and schedule a short briefing for John, Steve, Jenifer and maybe Laverne if we can. If they support going to Jeff, we then need to call Marcia Coombs and ask for a briefing by Phil. We should ask her to come and we definitely want NPS (and maybe Pamela Bergmann) there.

FYI, one of my main fishing buddies is an ARD at BLM and he says the new RD is a big fly fisherman and just coming up from Idaho where he has seen the devastation of mining. We should think about asking other RDs like BLM and USGS to participate in the briefing. Something to ask Laverne and company.

When do you think we can schedule the first meeting? I will provide the Pebble layout showing road, port and mine as we know it. I also have a map showing 792.6 square miles of mining claims around Pebble.

This is going to happen and its going to get bloody. I am looking forward to it!

Phil Brna
Fish and Wildlife Biologist
Conservation Planning Assistance Branch
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# EPA to Seek Service Support When They Use Section 404(c) of the Clean Water Act

## PURPOSE OF AFWFO/RO OCTOBER 1, 2010 DISCUSSION

To inform Regional Office management about the status of the Environmental Protection Agency's (EPA) involvement in the potential Pebble Mine development and EPA's anticipated request for support from Region 7 of the U.S. Fish and Wildlife Service (Service).

### SUMMARY OF LIKELY ACTION

The U.S. Environmental Protection Agency (EPA) is seeking Service support as they initiate a formal process to issue a determination that the waters of the U.S., including wetlands, within the potential Pebble Mine action area are unsuitable for the placement of fill material. This action would be conducted under the authority of Section 404(c) of the Clean Water Act (CWA), and would effectively prevent the project from receiving the necessary federal permits to develop a mine in the Nushagak and Kvichak watersheds. The CWA authorizes the U.S. Army Corps of Engineers (Corps) or an approved state to issue permits for discharges of dredged or fill material at specified sites in waters of the United States. Section 404(c), however, 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, wildlife, or recreational areas.

As of last week, it is our understanding that EPA has tentatively decided to initiate the 404(c) process but they have not yet determined when this will occur. It is likely a final decision will be made after the November election. EPA Alaska staff have briefed all the way up to just below the EPA Administrator. Trout Unlimited and Alaskans from the Bristol Bay area have been visiting lawmakers in Washington D.C. (see Anchorage Daily News article dated 9/24/10). Originally EPA was contemplating a 404(c) action for the area associated with Pebble, but they are now considering a much larger area in southwest Alaska.

## BACKGROUND ON 404(C)

Under Section 404 (c), EPA may exercise a veto over Corps' or a state's authorization of a site for the discharge of dredged or fill material. Under Section 404(c), EPA may also prohibit or otherwise restrict the specification of a site to be filled before a permit application has been submitted to, or approved by, the Corps or a state. In effect, Section 404(c) authority may be exercised before a permit is applied for, while an application is pending, or after a permit has been issued. Because Section 404(c) actions have mostly been taken in response to unresolved Corps permit applications, this type of action is frequently referred to as an EPA veto of a Corps permit.

An EPA Regional Administrator initiates a 404(c) action if he or she determines that the impact of a proposed permit activity is likely to result in:

- significant degradation of municipal water supplies (including surface or ground water),
- significant loss of or damage to fisheries, shellfisheries, wildlife habitat, or recreation areas.

EPA has used its Section 404(c) authority very sparingly, issuing only 12 final veto actions since 1972 (see attachment 1 for a list of actions). A recently concluded action was Yazoo Pumps, an action that was strongly supported by the Service. Currently, there are two mines (Spruce No. 1 mine in West Virginia, and Big Branch Mine in Kentucky) which are in the preliminary phases of 404(c) determinations.

## WHAT COULD FWS INVOLVEMENT LOOK LIKE?

The success of a 404 (c) determination is dependent upon the support of stakeholder groups, but a critical piece is support from the other Federal agencies that have a recognized role in the Corps regulatory process.

The EPA would take the lead by issuing a "Notice of Proposed Determination" to withdraw, prohibit, deny, or restrict use of a defined area for the placement of fill material for the Pebble Mine project. The EPA notifies the project proponent and the Corps of their intent to make a 404(c) determination, and then issues a public notice in the federal register to seek input. A public hearing is usually held. Information obtained during the public notice and the public hearing processes is then used by the EPA Assistant Administrator to make a decision to affirm, modify, or rescind the recommended determination.

Through our authorities<sup>1</sup>, the Service in R7 could support this action by:

- providing information to the EPA Regional Administrator prior to the "Notice of Proposed Determination" to assist them as they decide whether to go forward or not. Such information would include assessments, based upon the best available data and science, about the amount of habitat to be lost; potential adverse effects on habitat and species including listed species and encompassing direct, indirect, and cumulative adverse impacts; effects of contaminants on fish and wildlife species and water quality; information on the known and documented effects of mining on water quality,
- providing formal input during the public notice and public hearing processes;
- ensure that the Service's leaders in WO are aware and supportive of this action.

#### WHY PEBBLE MINE?

The EPA's reasons for potentially making a 404(c) determination at the Pebble mine site are primarily related to salmon. The Service shares those concerns. Additionally, significant adverse impacts to other species, such as marine mammals, migratory birds, listed species, and their habitats, are inevitable from a development on the scale of that described for the Pebble mine. However, salmon are the heart of Bristol Bay, and much of the areas' importance relates to salmon: subsistence, commercial fishing, sport fishing, the aquatic and terrestrial ecosystem and the ecosystem of the North Pacific.

- The mine is located on a divide between the Nushagak and Kvichak River watersheds these two watersheds produce one in eight Alaska salmon.
- Bristol Bay currently produces more salmon than any other watershed on earth, and the Nushagak and Kvichak have the lion's share of salmon runs in Bristol Bay (69%).

#### What's different about Pebble Mine?

- The area supports the volumes, grades, and metallurgy to support a long-life, high volume open-pit and underground mine.
- The Pebble property captures the world's most extensive mineral system. The Pebble deposit is only one of many in the area, and there is concern about cumulative impacts from multiple mines in the area.
- Mining claims in the Pebble area capture the world's most extensive mineral system (58,000 acres for Pebble), a total of 724 square miles.
- Several projects in one: port, roads, pipeline, tailings impoundments, power, shipping.
- Could be world's sixth largest copper mine; world's largest gold mine.
- Current estimate is 10 billion cubic yards of tailings will be left as waste.
- Latest scenario from Pebble web site superimposed on Anchorage for scale.

What are the potential avenues of adverse effects on fish and wildlife resources?

- Direct habitat loss and degradation.
- Hydrological alterations dewatering, changes in watershed quality/quantity, recharge over much larger area than mine alone, use of large quantities of water for processing/human use
- Contaminants soils porous in the areas; complex interaction of groundwater/surface:
  - 1. Many metals potentially toxic to fish and wildlife would be exposed in the deposit.
  - 2. Elevated potential for Acid Mine Drainage over a vast area.
- Need for perpetual storage of potentially toxic waste (8.2 billion tons).
- Need to treat water in perpetuity.

#### Information from literature –

• Historically, mines that are both near groundwater or surface water resources, and possess an elevated potential for acid drainage and contaminants leaching, will result in exceedances of water quality standards.

### RECOMMENDATIONS FROM AFWFO

- Invite Phil North, EPA lead for Pebble to brief RD Geoff Haskett and NPS RD Sue Masica.
- Fully support EPA in this endeavor by allowing EPA to publicly indicate our support for their proposed determination.
- Provide biological information, technical assistance and recommendations when appropriate
- Brief the WO/CPA staff and AD Brian Arroyo. They may have already been contacted by Trout Unlimited Washington staff.

The U.S. Congress established the USFWS by way of recognizing the national importance of maintaining healthy fish and wildlife populations (CFR 416 742a). Congress further outlined USFWS' conservation responsibilities through the enactment of federal legislation, e.g., Endangered Species Act, the Marine Mammal Protection Act, and the Migratory Bird Treaty Act, Additionally the Anadromous Fish Conservation Act, the Clean Water Act, the Fish and Wildlife Conservation Act, the Fish and Wildlife Coordination Act, the National Environmental Policy Act, and the Federal Power Act confer broad authority to the Service; providing particular or shared responsibility over the Nation's wildlife species.



## INTERNAL DELIBERATIVE DOCUMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY DISCLOSURE AUTHORIZED ONLY TO CONGRESS FOR OVERSIGHT PURPOSES

FY11 Proposed Investment: Bristol Bay 404(c)

Funding Gap = \$312k

**Activity/Proposal**: Initiate the process and publish a CWA 404(c) "veto" action for the proposed permit for the Pebble gold mine in Bristol Bay, AK.

**Background**: EPA is on a fast track to evaluate the potential harm of a proposed gold mine to the natural resources of Bristol Bay, AK. The Bay is the largest sockeye salmon fishery on the Pacific Coast; the fishery itself is larger than the combination of all other Pacific Ocean fisheries, and provides income to residents and food to Alaskan native villages. The mine, if permitted, would be the largest gold mine in the US, and would generate six times the tailings as the current largest mine.

While resorting to exercising EPA's 404(c) authority is rare (only 12 actions since 1981), the Bristol Bay case represents a clear and important need to do so given the nature and extent of the adverse impacts coupled with the immense quality and vulnerability of the fisheries resource. Threat of impacts will also harm all other investment in Bristol Bay. Six Alaskan tribes and 14 other stakeholders have requested that EPA initiate a 404(c) veto based on their concerns that the mine would irreversibly adversely affect the fishery. Region 10 believes that additional information gathering and analysis must be completed in order to support a decision to formally initiate of 404(c). It's still possible that a veto will not prove necessary, but a decision to move forward has created the need for upfront analysis and outreach regardless.

Additional FY11 resource needs funds for travel to Anchorage and the permit site; and contractor support to conduct specific scientific/technical analysis on the characteristics of salmon resource, the ecological and economic significance of salmon, stressors and threats to watershed health, and success or failures of potential mitigative measures. This work will support a decision in June 2011 whether to proceed with the 404(c) veto. If yes, then additional resources will be needed in FY12 to issue the Recommended Determination, respond to comments, and issue the Final Determination by the summer of 2012.

**Impact/Rationale**: Given the magnitude of proposed project's environmental impact and the Administration's decision to proceed, we have no choice but to support this work.

**Decisions to date/shortfall**: Funding has already been provided for one SEE staffer in Region 10, along with \$64k in FY10 funds to initiate the risk analysis. The work that EPA has already committed to (i.e., pre-404(c) activities) will require an additional \$312k in the Region and HQ. Conduct of the 404(c) action itself (anticipated in FY12) will require an additional \$187k.

# DOCUMENT PAGE BREAK

Morgan, Kevin D POA[Kevin.D.Morgan@usace.army.mil] To:

Stone, James R LTC POA[James.R.Stone@usace.army.mil]; Leseman, Jackie R Cc: POA[Jackie.R.Leseman@usace.army.mil]; Stinnett-Herczeg, Terri L POA[Terri.L.Stinnett-Herczeg@usace.army.mil]; Meyers, Steve POA[Steve.Meyers@usace.army.mil]; Casey, Dave C POA[Dave.C.Casey@usace.army.mil]; McCafferty, Katherine A

POA[Katherine.A.McCafferty2@usace.army.mil]; Justis, Glen E POA[Glen.E.Justis@usace.army.mil];

Keller, William A POA[William.A.Keller@usace.army.mil]; Burman, Anne L

POA[Anne.L.Burman@usace.army.mil] Koenig, Reinhard W COL POA From:

Fri 2/4/2011 5:19:39 PM

RE: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED) Subject:

Received: Fri 2/4/2011 5:19:44 PM

Classification: UNCLASSIFIED

Caveats: FOUO

Kevin,

Are you and I invited to listen in? I guess I know now why the EPA Region 10 Administrator specifically asked to see us next week. We may want to talk to Meg and Thom and discuss our position beforehand. My gut reaction is that if they go ahead with the study, they have effectively invoked veto authority and our involvement is over.

Thanks, Rhino

Reinhard W. Koenig COL. EN Commander and District Engineer Alaska District, U.S. Army Corps of Engineers

907-753-2504

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**ARMY STRONG BUILDING STRONG** BUILDING AND PRESERVING ALASKA'S FUTURE

----Original Message-----From: Morgan, Kevin D POA

Sent: Friday, February 04, 2011 6:36 AM To: Koenig, Reinhard W COL POA

Cc: Stone, James R LTC POA; Leseman, Jackie R POA; Stinnett-Herczeg, Terri L POA; Meyers, Steve POA; Casey, Dave C POA; McCafferty, Katherine A POA; Justis, Glen E POA; Keller,

William A POA

Subject: FW: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: FOUO

Sir:

FYSA. There is a somewhat lengthy e-mail chain below.

BLUF: EPA is proposing a watershed study in Bristol Bay to support a potential 404(c) veto due

to the Pebble Mine. EPA is seeking to engage the ASA(CW)'s office in a teleconference today (4:30 - 5 PM eastern time) to discuss an EPA announcement in Alaska next week about the study. This is a result of the petition to EPA from AK Native Villages et al, for a pre-emptive 404(c). The EPA administrator has given her support to start a process to make an informed decision on the petition for a 404(c).

#### Kevin

Kevin Morgan Chief, Regulatory Division Alaska District, Corps of Engineers 907-753-2782 800-478-2712 (toll free) 907-753-5567 (fax)

----Original Message----

From: Gaffney-Smith, Margaret E

Sent: Friday, February 04, 2011 3:21 AM

To: Morgan, Kevin D POA

Subject: Fw: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

Kevin I am pushing to understand EPA authority and objective for this effort.

From: Gaffney-Smith, Margaret E

To: 'Evans.David@epamail.epa.gov' <Evans.David@epamail.epa.gov>

Cc: 'Frazer.Brian@epamail.epa.gov' <Frazer.Brian@epamail.epa.gov>; 'rock.salt@us.army.mil'

<rock.salt@us.army.mil>; Smith, Chip R HQDA

Sent: Fri Feb 04 06:18:30 2011

Subject: Re: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

Thanks Dave. I didn't realize these authorities could be intertwined with 404(c).

Has EPA used this authority in the past and is there any reference you might share in terms of the process to be followed for this action?

From: Evans.David@epamail.epa.gov < Evans.David@epamail.epa.gov >

To: Gaffney-Smith, Margaret E

Cc: Frazer.Brian@epamail.epa.gov <Frazer.Brian@epamail.epa.gov>; rock salt

<rock.salt@us.army.mil>; Smith, Chip R HQDA

Sent: Fri Feb 04 06:14:06 2011

Subject: Re: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

We have broad authority to expend funds for research, studies, demonstration projects, etc. under CWA Section 104(b)(3). We can discuss.

Dave

David Evans, Director Wetlands Division

Office of Wetlands, Oceans and Watersheds (202) 566-0535 (202) 725-6415 (cell)
-----Sent from my BlackBerry Wireless Handheld

From: "Gaffney-Smith, Margaret E" [Meg.E.Gaffney-Smith@usace.army.mil]

Sent: 02/03/2011 09:21 PM EST

To: David Evans

Cc: Brian Frazer; <rock.salt@us.army.mil>; "Smith, Chip R HQDA"

<SmithCR@HQDA.Army.Mil>

Subject: Re: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

Thanks Dave. This is most helpful. I would like to better understand the statutory authority for EPA to conduct this watershed study. Is is 404(c)? Has this been done before? If so, can you share an example? Perhaps the South East?

From: Evans.David@epamail.epa.gov < Evans.David@epamail.epa.gov>

To: Gaffney-Smith, Margaret E

Cc: Frazer.Brian@epamail.epa.gov < Frazer.Brian@epamail.epa.gov >; rock.salt@us.army.mil

<rock.salt@us.army.mil>

Sent: Thu Feb 03 19:37:59 2011

Subject: Re: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

EPA has been formally petitioned by individual Alaskan Native Villages, a consortia of Tribes business council from Bristol Bay area, and other parties as well - going back many months, to initiate a 404(c) action to protect Bristol Bay from adverse impacts associated with potential "Pebble Mine". EPA Region 10 has had series of communications with our Administrator's office, and with State of AK and others, and has been seeking signal from EPA Administrator on a recommended approach they have for collecting scientific information and convening/facilitating stakeholder and Intergovernmenal dialogue to inform a decision on whether to grant the petition to proceed with a "proactive" (in advance of permit) 404(c) veto action, as requested by petitioners. The Administrator has signalled her support, just couple days ago, and folks are scrambling around to effectively communicate the Agency's plans for a process to decide on the petition, knowing it will get a lot of attention and political scrutiny. We can discuss more tomorrow morning.

Dave

----"Gaffney-Smith, Margaret E" < Meg.E.Gaffney-Smith@usace.army.mil> wrote: ----

To: David Evans/DC/USEPA/US@EPA
From: "Gaffney-Smith, Margaret E" <Meg.E.Gaffney-Smith@usace.army.mil>

Date: 02/03/2011 07:37PM

Subject: FW: Bristol Bay & Alaska Pebble Gold Mine (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Dave,

This is news to me...

Meg Gaffney-Smith Chief, Regulatory Community of Practice HQUSACE 202-761-8560 (phone) 202-761-5096 (fax)

----Original Message----

From: Peck.Gregory@epamail.epa.gov [mailto:Peck.Gregory@epamail.epa.gov]

Sent: Thursday, February 03, 2011 2:59 PM

To: Monica.medina@noaa.gov; Salt, Terrence C SES CIV USA ASA CW; Cassady,

Barbara J Ms CIV USA ASA CW; jtubbs@doi.gov; ldavis@doi.gov

Cc: Klasen.Matthew@epamail.epa.gov

Subject: EPA/Bob Sussman - Bristol Bay Alaska Interagency Conference Call

Laura, John, Monica, Barbara, and Rock:

Bob Sussman and Mike Boots are eager to schedule a call tomorrow afternoon among this group to discuss an EPA announcement in Alaska next week related to a watershed study in Bristol Bay, AK. Bristol Bay is home to the largest North American Salmon fishery and site of planned mineral mining activities, including the proposed Pebble Mine. Bob and Mike want to make sure you are aware of this announcement and discuss your Department's participation in the watershed study being started.

Given our current schedule, we'd like to see if we could schedule this discussion tomorrow afternoon (Friday) from 4:30-5:00 pm. We regret the short timing on this conference call

Please let me know if you (or your designee) can not make this call tomorrow. We looking forward to talking with you Friday.

Feel free to call me if you have any questions. We'll follow-up with logistical information for the call.

Best, Greg

Gregory E. Peck Chief of Staff Office of Water U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

202-564-5778

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: FOUO

Classification: UNCLASSIFIED

Caveats: FOUO

Classification: UNCLASSIFIED

Caveats: NONE

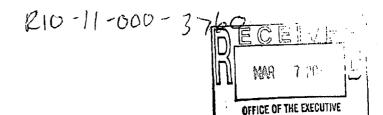
Classification: UNCLASSIFIED

Caveats: FOUO

Classification: UNCLASSIFIED

Caveats: FOUO

# DOCUMENT PAGE BREAK





Dennis J. McLerran, Regional Administrator EPA, Region X Regional Administrator's Office, RA-140 1200 6<sup>th</sup> Avenue, Suite 900 Seattle, WA 98101

Dear Dennis:

Thank you for keeping an open line of communication regarding the Environmental Protection Agency's decision to conduct an assessment of the Bristol Bay Watershed. I am writing today about the "Outline for the Development of the EPA's Bristol Bay's Watershed Assessment." I appreciate the opportunity to transmit our thoughts on this issue.

For the record, I would like reiterate the position of the Pebble Limited Partnership (PLP) that any action under the Clean Water Act (CWA) section 404(c) should not be undertaken until PLP has formally initiated permitting for the Pebble Project and started the National Environmental Policy Act (NEPA) process. As a long standing advocate for responsible development of Alaska's resources, I have serious concerns about the long-term precedent an initiation of the 404(c) process by the EPA, prior to the submission of an application, could set for future activities in Alaska.

I have reviewed Senator Lisa Murkowski's letter to Administrator Jackson and concur with the range of issues and concerns she brought to the attention of the EPA, including her request that no action be taken until PLP is in the permitting process, as it would provide more confidence to Alaska stakeholders that "EPA's work on this matter is not pre-judging any specific decision that may ultimately confront the agency." Indeed, there are already questions of whether EPA's action to undertake its watershed assessment in the face of the significant and costly scientific work that has been undertaken in the field has already prejudiced future possible permit applications that PLP may elect to file in the future.

In reviewing the draft outline you provided, several questions have emerged that I respectfully request EPA address and consider before moving forward with the assessment and accompanying processes.

 Did the EPA make a formal determination to initiate this scientific assessment process? If so, please provide a copy of that determination to the Pebble

... 1913 See 182 1 April 14 April 15 AR 9550 1 97/139 2690 phone 1 187/-350 2600 toll-free 1 907-139-7r01 fee 1 www.pobliopartnership.com



Partnership. If there is no formal written determination that states the rationale for the decision, please identify the statutory or regulatory basis for conducting such a scientific assessment.

- Please identify other instances in which EPA has conducted such an assessment.
- What methodology will the EPA use in identifying risks and threats through this process? Is there statutory guidance for this? How will "threats" be defined?
- If there are no established procedures or precedents for such a scientific assessment, what is the process EPA will use to design and establish how the assessment will be conducted?
- Without the benefit of reviewing a project's specific mitigation plans, which
  would be detailed as part of a permit application process on both a state and
  federal level, how will the EPA assess what actions will result in "adverse effect
  on municipal water supplies, shellfish beds and fishery areas, wildlife or
  recreational areas?" What are the standards that will be utilized in establishing
  this criteria?
- By what criteria will the EPA determine if the Bristol Bay salmon fishery is a one-of-a-kind, world class fishery? Will the EPA include reviews of Alaska's other salmon fisheries notably the Copper River, the Yukon River, the Kuskokwim River and the Cook Inlet Drainage?
- By what definition will the EPA determine existing literature is "relevant?"
- By what criteria will the EPA determine existing and potential risks to the Bristol Bay salmon fishery associated with large-scale development activities and how will the EPA define "large-scale development?" Will climate change be included in the risk identification process?
- How will the scientific peer review be conducted? Who will be part of the peer review? How will the peer review panel participants be selected? For instance, PLP's Environmental Baseline Document (EBD), which we will share with you later this year, will be about 20,000 pages in addition to the appendices with the raw data. This exhaustive document brings together the work of more than 500 independent scientists from more than 50 companies. How will this information be peer reviewed?
- How will the EPA ensure that the peer review is balanced? Will the EPA establish conflict of interest criteria for the peer review process? How will the EPA



determine what "existing science" is relevant to accept for review and what criteria will it utilize?

- How will EPA ensure this process will not conflict with NEPA or prejudice EPA's role in the NEPA process should the Pebble Partnership submit a permit application?
- Will the scientific assessment evaluate the impacts of other major users of the watershed including commercial fishing, tourism, transportation infrastructure, hunting and guide services? If not, why?
- What type of budget will be allocated for the scientific assessment? Has the EPA prepared a cost estimate for this endeavor? If so, please send that to PLP.
- In addition to risk, will the review look at the potential opportunities presented by development in the watershed?

I very much appreciate the EPA's efforts to make this process transparent. With that in mind, I respectfully request that the PLP be allowed to fully participate in the assessment. In order for us to meaningfully participate in this process we will need the answers to the questions I have raised above.

Once we learn more about the EPA's intended way forward with this assessment, we should discuss a schedule whereby we can engage with EPA to communicate our data and information.

I look forward to continuing this dialogue and appreciate your time and consideration.

Sincerely,

John Shively

CEO

The Pebble Limited Partnership

CC: The Honorable Sean Parnell, Governor of Alaska
The Honorable Lisa Murkowski, United States Senator, Alaska
The Honorable Mark Beglch, United States Senator, Alaska
The Honorable Don Young, United States Representative, Alaska

# DOCUMENT PAGE BREAK

From:

Phil North

Subject:

IFASB@kpc.alaska.edu Re: Bristol Bay EPA

Subject Date:

05/07/2011 09:00 PM

### Hi Alan,

Two corrections: 1. Its 404c, not 505c. 2. We are being careful to say that at this point we are not starting a 404c process. We are gathering the information necessary to determine if a 404c process is warranted. We don't want to give people the impression that we have started the 404c process. I know this may seem like a fine line, but it is significant for us and for the public perception of what we are doing.

While I'm at it - We have set a relatively short time line to get this done so that we can be responsive to the tribes that requested we initiate a 404c action in advance of a permit for the Pebble Mine. In order to do an advance action we must have the watershed assessment completed before PLP submits their applications. We may not make that time line, but we will try. We think we can do it and provide the high quality science needed in the time frame we have set. If we find we need more time for the science then we will extend the time lines.

Have a good trip.

### Phil

Phillip North
Environmental Protection Agency
Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax 260-5992
north.phil@epa.gov

"To protect your rivers, protect your mountains."

To: "Apayo Moore Troll < ttroll@TNC.ORG>, Ann Fienup-Riordan - Ex. 6

Catherne Knott - Ex. 6

"ingjt@uaa.alaska.edu" < ingjt@uaa.alaska.edu>, Holly Cusack-McVeigh < exhibits@prattmuseum.org>, "Jeanne\_Schaaf@nps.gov" < Jeanne\_Schaaf@nps.gov>, "John\_Branson@nps.gov" < John\_Branson@nps.gov>, KERRY FELDMAN < afkdf@uaa.alaska.edu>,

Sasha Lindgren <slindgren@kenaitze.org>, Steve Langdon <afsjl@uaa.alaska.edu>, "Karen\_Evanoff@nps.gov" <Karen\_Evanoff@nps.gov>, Phil North/R10/USEPA/US@EPA

From: Alan Boraas <IFASB@kpc.alaska.edu>

Date: 05/07/2011 12:16PM Subject: Bristol Bay EPA

### Folks,

As most of you know, the Environmental Protection Agency is undertaking a Clean Water Act Section 505c evaluation of the Bristol Bay region which will have major implications for the future of the region and Alaska. The EPA study, of course, focuses on water, streams and stream resources, particularly salmon and broadly consists of three parts: a biological component, an economic component and a cultural component (TEK). Unlike the other parts, the cultural component will involve going to selected villages, listening to culture bearers, and translating their words into a form that EPA can use to either apply or not apply 505c status to the region. In addition the information must stand the test of potential litigation. It's a daunting task that apparently for political reasons must be completed in about six months. Attached are several documents we wish you would review. With the exception of the Kenatize Indian Tribe letter, all are in draft status. The synopsis is a portion of the broader synopsis. In addition there will be a more traditional subsistence component summarizing fish harvesting and consumption data that has previously been collected by other projects.

Essentially, this portion of the EPA study frames the cultural situation thusly: "What would be the impact on the villages of the Bristol Bay region if healthy wild salmon and other stream resources were significantly diminished or otherwise not available."

We will carefully consider all of your comments and suggestions and thank you in advance for your time. This same packet will be sent to the village councils in the region via the EPA tribal liaison.

Alan Boraas

Catherine Knott

[attachment "Synopsis only Cultural component 5-7-11.docx" removed by Phil North/R10/USEPA/US]
[attachment "Interview Questions 5-1-11.doc" removed by Phil North/R10/USEPA/US]
[attachment "Methodology2.docx" removed by Phil North/R10/USEPA/US]
[attachment "KIT Introduction Letter" removed by Phil North/R10/USEPA/US]

[attachment "Boraas.jpg" removed by Phil North/R10/USEPA/US]





### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

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

MAR 3 0 2011

OFFICE OF THE REGIONAL ADMINISTRATOR

Mr. John Shively Chief Executive Officer Pebble Limited Partnership 302 C Street, Suite 604 Anchorage, Alaska 99503

Dear Mr. Shively:

I am writing in response to your letter, dated February 28, 2011, in which you reiterate Pebble Limited Partnership's (PLP) position that EPA should not take an action under Section 404(c) of the Clean Water Act (CWA) until PLP has formally initiated permitting for the Pebble Project and started the National Environmental Policy Act (NEPA) process. You articulate PLP's interest in participating in EPA's Bristol Bay Watershed Assessment and you ask EPA to respond to fourteen specific questions about the watershed assessment. You also state that once you have had an opportunity to learn more about EPA's "intended way forward" with the Assessment, you suggest that EPA and PLP "discuss a schedule whereby [PLP] can engage with EPA to communicate [its] data and information." I will respond to these three important points, and enclose EPA's response to your more specific questions.

First, as we have discussed, EPA is not currently taking action under Section 404(e) of the CWA. Throughout 2010, a number of tribes, tribal entities and other groups in Southwest Alaska requested that EPA initiate review of impacts that metallic sulfide mining may have in the Bristol Bay watershed utilizing our authorities pursuant to Section 404(e) of the CWA. Other Alaska tribes, tribal entities and groups requested that we let the typical permitting process for mines run its course. EPA considered a number of options and relevant information before determining that the best option at this point, given the available information, is the watershed assessment that we have chosen to conduct. The assessment will provide critical information to decision makers about potential risks of large-scale development in the Kvichak and Nushagak watersheds on fisheries of Bristol Bay, and in possible measures needed to protect the watersheds and ensure the sustainability of those fisheries.

Second, you have requested that PLP be allowed to participate in the assessment. EPA plans to involve PLP in our process. I sent you a letter on March 15<sup>th</sup> requesting baseline environmental data and analysis that PLP has already gathered and conducted on the Bristol Bay watershed. These data will complement existing information that collectively characterizes current conditions of the watershed, thereby facilitating a more accurate watershed assessment. EPA is also collecting and reviewing scientific data and information from peer-reviewed literature and in government agency reports. Our plan is first to engage federal, state and tribal agencies in technical discussions, and in developing an expanded, annotated outline and a preliminary draft assessment. Once each document is developed, EPA plans to share the

documents with the public for review and also for discussion at a public meeting. We invite PLP's review of the draft documents and your participation at the public meetings to ensure that our assessment yields a result that is high quality, scientifically sound, and includes effective consideration of your input.

Third, I want to emphasize how important your offer to share information is to EPA and this assessment. From the beginning of our discussions together, PLP has offered to share its significant collection of environmental information with EPA. Based on our recent discussion I understand you will be providing this information in April. We would appreciate receiving the information at the earliest point in April you can make it available. I realize we are asking PLP to respond quickly, but EPA wants the assessment to be timely, efficient, accurate and transparent. We believe your information will help us in achieving those goals.

Finally, I am enclosing EPA's responses to the fourteen specific questions you raised in your letter to me. If you have any more questions or concerns about our responses or about the assessment in general, please do not hesitate to contact me. I would also encourage you to have your staff contact Rick Parkin, EPA's Associate Director for the Office of Ecosystems, Tribal and Public Affairs, and the Management Lead for the Bristol Bay Watershed Assessment. Rick can be reached at (206) 553-8574. Thank you again for your cooperation and assistance in the Bristol Bay Watershed Assessment.

Sincerely,

Dennis J. McLerran Regional Administrator

Enclosure

ce: The Honorable Sean Parnell Governor of Alaska

The Honorable Lisa Murkowski United States Senator, Alaska

The Honorable Mark Begich United States Senator, Alaska

The Honorable Don Young United States Representative, Alaska

bcc: Bob Sussman Nancy Stoner ENCLOSURE
EPA's Response to PLP's Questions
2/28/11 Letter from Shively to McLerran

**PLP Question #1:** Did the EPA make a formal determination to initiate this scientific assessment process? If so, please provide a copy of that determination to Pebble Partnership. If there is no formal written determination that states the rationale for the decision, please identify the statutory or regulatory basis for conducting such a scientific assessment.

EPA Response #1: No, a formal written determination was not prepared. EPA is conducting this assessment under our Clean Water Act (CWA) Section 104 authorities described below. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Toward achievement of that objective, Section 104(a) directs EPA to establish national programs for the prevention, reduction, and elimination of pollution and as part of such programs directs EPA to:

- "(1) in cooperation with other Federal, State, and local agencies, conduct and promote the coordination and acceleration of, research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of pollution;
- "(2) encourage, cooperate with, and render technical services to pollution control agencies and other appropriate public or private agencies, institutions, and organizations, and individuals, including the general public, in the conduct of activities referred to in paragraph (1) of this subsection;
- (3) conduct, in cooperation with State water pollution agencies and other interested agencies, organizations and persons, public investigations concerning the pollution of any navigable waters, and report on the results of such investigations..."

Section 104(b) further states that in carrying out these provisions, EPA's Administrator is authorized to:

- "(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities referred to in paragraph (1) of subsection (a);
- "(2) cooperate with other Federal departments and agencies, State water pollution control agencies, interstate agencies, other public and private agencies, institutions, organizations, industries involved, and individuals, in the preparation and conduct of such research and other activities referred to in paragraph (1) of subsection (a)..."

**PLP Question #2:** Please identify other instances in which EPA has conducted such an assessment.

EPA Response #2: The mission of the EPA is to protect human health and the environment. As such, evaluating the environmental impacts of different actions is a central role and function of the agency. EPA has conducted environmental assessments that evaluate the impacts of past actions or estimate the potential impacts of future actions. Below is a list of several recent

examples of such assessments. (Please note that some of these assessments are currently in draft form and under review.)

- U.S. EPA. Predicting Future Introductions of Non-indigenous Species to the Great Lakes (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/066F, 2008. (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=190305)
- U.S. EPA. Climate Change and Aquatic Invasive Species (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/014, 2008. (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=188305)
- U.S. EPA. A Framework for Categorizing the Relative Vulnerability of Threatened and Endangered Species to Climate Change (External Review Draft). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/011, 2009. (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=203743)
- U.S. EPA. The Effects of Mountaintop Mines and Valley Fills on Aquatic Ecosystems of the Central Appalachian Coalfields (External Review Draft). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/138A, 2010. (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=215267)
- U.S EPA. Clinch and Powell Valley Watershed Ecological Risk Assessment, U.S.
   Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington Office, Washington, DC, EPA/600/R-01/050, 2002. (<a href="http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=15219">http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=15219</a>).
- U.S. EPA. Ecological Risk Assessment for the Middle Snake River, Idaho. U.S.
   Environmental Protection Agency, Office of Research and Development, National Center
   for Environmental Assessment, Washington Office, Washington, DC, EPA/600/R 01/017, 2002.
   (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29097&partner=ORD-NCEA).
- U.S. EPA. Waquoit Bay Watershed Ecological Risk Assessment: the Effect of Land-Derived Nitrogen Loads on Estuarine Eutrophication. U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington Office, Washington, DC, 600/R-02/079, 2002. (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=15221).

**PLP Question #3:** What methodology will the EPA use in identifying risks and threats through this process? Is there guidance for this? How will "threats" be defined?

EPA Response #3: EPA has published Guidelines for Ecological Risk Assessment which will help to inform our approach to the Bristol Bay assessment. These Guidelines can be found at: http://www.epa.gov/raf/publications/guidelines-ecological-risk-assessment.htm.

**PLP Question #4:** If there are not established procedures or precedents for such a scientific assessment, what is the process EPA will use to design and establish how the assessment will be conducted?

EPA Response #4: Many of the details of our assessment are still being developed. As previously noted, EPA will use the Guidelines for Ecological Risk Assessment to help inform

our approach to the assessment.

**PLP Question #5:** Without the benefit of reviewing a project's specific mitigation plans, which would be detailed as part of a permit application process on both a state and federal level, how will the EPA assess what actions will result in "adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife or recreational areas?" What are the standards that will be utilized in establishing these criteria?

EPA Response #5: The "adverse effect" standard referenced in your question applies to section 404(c) decisions. EPA is conducting the Bristol Bay Assessment to characterize the aquatic and fisheries resources of Bristol Bay and potential threats to the long-term sustainability of these resources. EPA is not using the Assessment to make a decision under our section 404(c) authority. In order to assess actions that may represent a risk or threat to resources in Bristol Bay, EPA will characterize the fishery to determine the chemical, physical, and biological characteristics of the Bristol Bay that are critical in supporting the ecological health and sustainability of the salmon fishery. EPA will then identify reasonably foreseeable large-scale future development activities that could occur in the watershed and we will assess how these activities could impact the characteristics that support the fishery. In evaluating potential impacts to Bristol Bay resources, we will also evaluate the effectiveness of potential actions to mitigate or avoid these impacts. Any information PLP would like to provide EPA regarding impacts and mitigation measures is welcome. As previously noted, EPA will use the Guidelines for Ecological Risk Assessment to help inform our approach to the assessment.

PLP Question #6: By what criteria will the EPA determine if the Bristol Bay salmon fishery is one-of-a-kind, world class fishery? Will the EPA include reviews of Alaska's other fisheries notably the Copper River, the Yukon River, the Kuskowim River and the Cook Inlet Drainage?

EPA Response #6: EPA will review available information describing salmon producing systems in Alaska, along the west coast of North America and Asia, and make appropriate comparisons with Bristol Bay. We may compare Bristol Bay to the rivers you have listed or we may aggregate them into a larger fishery as we deem scientifically valid. We would invite you comment on this topic when we have produced a draft document.

PLP Question #7: By what definition will the EPA determine existing literature is "relevant"?

EPA Response #7: EPA is interested in evaluating a broad range of technical literature characterizing resources in Bristol Bay and other information that help us to meet the goals described in the February 7, 2011 Outline for the Development of EPA's Bristol Bay Watershed Assessment. We look forward to collecting an inclusive set of data and information that can be used effectively to describe aquatic and fishery resources, characterize potential threats to these resources, and inform development of a range of options for protecting them from such risks. We expect that information collected by PLP regarding resources in the Bristol Bay watershed are examples of relevant information and we look forward to reviewing these data. As previously noted, the details of our assessment are still being developed. However, EPA has published Guidelines for Ecological Risk Assessment which will help to inform our approach to the Bristol Bay assessment.

PLP Question #8: By what criteria will the EPA determine existing and potential risks to the Bristol Bay salmon fishery associated with large-scale development activities and how will the EPA define "large-scale development?" Will climate change be included in the risk identification process?

EPA Response #8: As previously noted, the details of our assessment are still being developed. However, EPA has published Guidelines for Ecological Risk Assessment which will help to inform our approach to the Bristol Bay assessment. EPA does not anticipate that climate change considerations will significantly influence assessment of existing resources in the Bristol Bay watershed or evaluation of options for responding to potential threats associated with large scale development. We remain open, however, to consideration of scientifically valid issues that may be raised during the assessment, including issues raised by PLP.

**PLP Question #9:** How will the scientific peer review be conducted? Who will be part of the peer review? How will the peer review panel participants be selected? For instance, PLP's Environmental Baseline Document (EBD), which we will share with you later this year, will be about 20,000 pages in addition to the appendices with the raw data. This exhaustive document brings together the work of more than 500 independent scientists from more than 50 companies. How will this information be peer reviewed?

EPA Response #9: The peer review process will be a critical element of the watershed assessment and we appreciate the importance of this issue as reflected in your question. The details of EPA's Bristol Bay watershed assessment, including the details of the peer review process that will be used for this assessment, are still being developed. However, EPA has established standards and procedures regarding peer review which can be found in EPA's Peer Review Handbook (see: <a href="http://www.epa.gov/peerreview/">http://www.epa.gov/peerreview/</a>). We look forward to providing additional details regarding the peer review process as the assessment moves forward.

Regarding environmental information and data collected by PLP, in previous discussions you expressed a willingness to share baseline environmental data and analysis that PLP has gathered and conducted on the Bristol Bay watershed immediately with EPA. EPA's March 15th letter to you reiterated that request and expressed a desire to receive such information and data collected thus far by PLP by March 31, 2011. We continue to look forward to receiving this information since it should facilitate a more timely and accurate watershed assessment.

**PLP Question #10:** How will the EPA ensure that the peer review is balanced? Will the EPA establish conflict of interest criteria for the peer review process? How will EPA determine what "existing science" is relevant to accept for review and what criteria will it utilize?

EPA Response #10: We appreciate the importance of the peer review issues raised in this question and their relevance in assuring a scientifically valid and transparent assessment. As previously noted, the details of EPA's Bristol Bay watershed assessment, including the details of the peer review process that will be used for this assessment, are still being developed. We look forward to providing additional details regarding the peer review process as the assessment moves forward.

**PLP Question #11:** How will EPA ensure this process will not conflict with NEPA or prejudice EPA's role in the NEPA process should the Pebble Partnership submit a permit application?

EPA Response #11: We expect the Bristol Bay assessment can complement the NEPA process. The assessment will assist EPA and other federal agencies that participate in the scoping of NEPA documents. It will also be helpful in development of an Environmental Impact Statement (EIS) for the proposed Pebble Mine, especially the "Affected Environment" and "Mitigation" discussions. Should Pebble submit permit applications to trigger the NEPA process while EPA is developing the Watershed Assessment, EPA has the resources and capability to be involved in both processes concurrently.

**PLP Question #12:** Will the scientific assessment evaluate the impacts of other major users of the watershed including commercial fishing, tourism, transportation infrastructure, hunting and guide services? If not, why?

EPA Response #12: The Bristol Bay Watershed Assessment has been developed to focus on one of the world's largest remaining salmon fisheries and potential threats to this fishery associated with future large scale development in the Bristol Bay watershed. Although this question recognizes additional threats/users in the watershed, we do not anticipate evaluating the cumulative adverse effects of these users together with the large scale development activities that are the focus of this assessment. As part of the assessment, EPA will collect and evaluate information associated with activities previously authorized under Section 404 of the CWA in the Bristol Bay. However, EPA is particularly interested in assessing new threats associated with large scale development, such as large scale transportation infrastructure and mining, that alone might significantly impact the ecological integrity of resources in the Bristol Bay watershed, including the sustainability of the existing salmon fishery.

**PLP Question #13:** What type of budget will be allocated for the scientific assessment? Has the EPA prepared a cost estimate for this endeavor? If so, please send that to PLP.

PLP Response #13: EPA has not yet developed a detailed budget for this assessment.

**PLP Question #14:** In addition to risk, will the review look at the potential opportunities presented by development in the watershed?

PLP Response #14: EPA is aware of the economic opportunities and benefits of potential future development in the Bristol Bay watershed that will be directly relevant to decisions under the Clean Water Act, NEPA, and other Federal and State programs. The Bristol Bay Watershed Assessment, however, will not itself be a decision making process, but rather gather data and identify options which will help to inform future decisions. EPA is eager to use this assessment to ensure that an effective and comprehensive characterization of the environmental resources present in the watershed and threats to these resources are developed and a set of options for responding to these threats are identified. We expect that opportunities presented by potential development will be more fully considered as a part of future decision-making.





October 21, 2011

Mr. Dennis McLerran
Regional Administrator
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
140-RA
Seattle, WA

#### Dear Dennis:

I am writing to thank you and your staff for meeting with John Iani and me on October 12<sup>th</sup>. We discussed several items that I would like to confirm.

#### Finalizing the Environmental Baseline Document

First, I am sorry that we have been unable to transmit our environmental baseline document ("EBD") to you as soon as we had both hoped. It has taken much longer than we expected to complete our pre-release internal data quality review of this 20,000 page document. We will transmit the EBD to you as soon as we can complete this technical review: our current plans are to have the EBD ready for release on or about December 6.

#### Making PLP Consultants Available to EPA

In order to keep this process moving forward, , we have offered to make some of Pebble's scientific and technical consultants available to respond to any specific questions EPA has prior to the release of the EBD. Rick Parkin has contacted Ken Taylor, and we look forward to working out the details of that arrangement.



#### Baseline Data Transmittal Format

We will be providing the baseline information in pdf format. We recognize EPA's desire to obtain the data in a manipulatable format. However, this data has great value to us (we have spent over \$100 million on it), and EPA cannot guarantee that the data will not be made public.. Ordinarily this data and its interpretation would not be made public until we applied to begin the NEPA process. We offered to discuss providing the raw data to an agreed upon independent third-party contractor that could make analysis runs per EPA requests, but it is my understanding that this approach will not meet EPA's review standards for the watershed assessment.

#### EPA Review of the Baseline Data

EPA indicated that providing the EBD in December might mean that EPA would choose not to use some of the information contained in it. EPA has indicated in the past that that data was very important to your study. We agree that these data are important, thus, we believe that EPA should take the time and effort to review this information. We do not expect to begin applying for permits for our project until 2013, so we do not understand why EPA would feel the need to issue its assessment without considering the EBD data.

#### Mine Design Layout

As we stated at the meeting, we will be unable to comply with the request that Rick Parkin made for a current mine design layout of the Pebble Project that would be of any use to the Watershed Assessment process. As you are aware, we are currently in the pre-feasibility phase of developing a mine design layout which we hope to complete late in 2012. PLP and its predecessors have considered many options for all components of this project over the past several years, and we are still considering additional options.

The pre-feasibility study will result in a mine design layout that will supersede all previous designs. This study will include a comprehensive analysis of the geologic,



mining engineering, and economic factors governing the project, as well as an evaluation of appropriate environmental mitigation alternatives. The environmental evaluation will include, among other things, subjects such as waste management, water treatment, reclamation practices and mine closure and reclamation. Until that study is completed, there will be no mine design for EPA to analyze that has taken all of these factors into account, so the request is premature.

It takes years of environmental studies, careful planning and design work to ensure that the plan we ultimately propose — which will be reviewed by numerous federal and state regulatory agencies — meets or exceeds the agency design requirements and environmental protection standards. The reviewing agencies will include the EPA, the U.S. Army Corps of engineers, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, as well as the Alaska Departments of Fish and Game, Natural Resources and Environmental Conservation and others. All of those agencies, as well as Native Alaskans and the public, ultimately will have the opportunity to participate in a thorough review of the Pebble Project as the Environmental Impact Statement is developed under the National Environmental Policy Act.

EPA has undertaken the unprecedented task of assessing the impacts of potential development of a mineral deposit before the project is designed and submitted for permitting. Using an outdated and merely conceptual plan such as the one submitted in 2006 to the Alaska Department of Natural Resources by Northern Dynasty Mines for water rights applications — or even the preliminary Waldrop plan of February 2011 — would be an inadequate basis for such an assessment. Any analysis of this design would lead to erroneous conclusions having little relevance to what may actually be submitted by PLP at some future date.

#### Relevant Data From Other Mining Operations

There are alternative and sources of information for the agency to tap in lieu of a conceptual Pebble mine design that will likely become irrelevant. hile all mine designs are location specific and must address local physiographic, environmental and social conditions, there are some examples of existing mines in somewhat similar ecological



regions of North America that might provide you with a more accurate assessment of the effects of mining a copper/gold/molybdenum deposit on the surrounding environment. Analyzing these would provide EPA with real data rather than speculative results. The Gibraltar mine and Highland Valley Copper are two copper mines in British Columbia that have been constructed and have been in operation for a number years. Both of these operations are mining ore bodies similar to that of the Pebble deposit, and both are in the Fraser River Valley where they must co-exist with one of the largest sockeye salmon populations in the world.

The regulatory environment here in Alaska is at least as stringent as it is in Canada. An analysis of the impacts of either of these two mines on the surrounding environment would provide your agency with a far more solid basis for any conclusions in your assessment of the Nushagak and Kvichak watersheds than you will produce using a hypothetical mine plan, regardless of the source.

We will be providing information on these and other mines so that EPA has an opportunity to assess mitigation measures being used by 21<sup>st</sup> century mining operations.

#### Watershed Assessment Schedule

EPA's current schedule for the Watershed Assessment is too ambitious. Given the substantial amount of information that EPA will have to review, and given the area being studied is the size of New Jersey and Maryland combined, providing a quality science-based product of the quality requested by Sen. Cantwell (among many others) is not realistic. Either quality or schedule will have to be sacrificed. Of those two choices, we respectfully request that quality should be controlling here. Moreover, as noted above, extending the schedule will not pose any risk to the watershed because PLP does not plan to apply for any permits before 2013, and when it does, the project will undergo a thorough environmental review.



#### Peer Review

We had a very healthy discussion about the approach EPA will use to have an independent contractor select members of the peer review panel. We support this approach and are pleased that all peer reviewers will have to be free from conflicts of

interest with PLP, our opposition and EPA itself. As we know, at least one of the contractors pick by EPA to assist with the Assessment was not free of such conflicts.

#### Tribal Consultation

Our discussion about Tribal consultation was quite useful. We understand that Region 10 solicited 31 tribal entities in the Bristol Bay region to determine which Tribes were interested in being consulted during the Assessment, and 14 of those entities responded positively. Rick Parkin has since provided us with the names of those Tribes.

We understand that EPA is still in the process of finalizing your consultation plan for the Tribes, and that EPA has been conducting some Tribal consultation since the study began. We will be interested in seeing the plan once it is complete.

#### Mitigation

Finally, one of the aspects of the Assessment which continues to concern us is the approach EPA will take to mitigation. As stated above, if attempting to predict what mine development plan fits anywhere in the two watersheds is at present an uninformative exercise, it, it is also too early to reliably predict what mitigation measures will be employed. This issue warrants further discussion.

\* \* \*

In closing we sincerely appreciate the open communication we have enjoyed with you, Bob Sussman and the Regional Administrator's office. We also appreciate your



commitment in visiting the site twice this year. We look forward to continuing our dialogue in the near future.

Sincerely yours,

John Shively

Chief Executive Officer

Robert Sussman Rick Parkin Allyn Stern Cara Steiner-Riley

## DOCUMENT PAGE BREAK



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

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

OFFICE OF THE REGIONAL ADMINISTRATOR

July 5, 2012

Honorable Michael Geraghty Attorney General State of Alaska 1031 West 4th Avenue Suite 200 Anchorage, Alaska 99501-5093

#### Dear Honorable Geraghty:

This letter is in response to your correspondence regarding the period for public comments on the Environmental Protection Agency's Draft Bristol Bay Watershed Assessment.

The EPA received several requests to extend the 60 day public comment period for the draft Bristol Bay Watershed Assessment. The EPA also received several requests to maintain the existing schedule. We have carefully considered both sets of requests and have decided not to extend the public comment period beyond the current deadline of July 23, 2012.

Historically, the EPA has provided sixty days for public comment on complex scientific assessments of comparable scope and detail. Our experience has been that a comment period of this duration is sufficient for members of the public to address the principal scientific issues, particularly where many of the commenters are familiar with and have expertise in the issues presented. In addition to undergoing public comment, the draft Bristol Bay Watershed Assessment will be evaluated by an independent scientific peer review panel. On August 7-9, 2012 in Anchorage, the peer review panel will meet to review the draft Bristol Bay Watershed assessment. The first two days will be open to the public and the panel will entertain public comments on August 7, 2012.

Some individuals requesting an extension of the comment period stated that more time is needed so the public can have access to the peer review process. The current peer review process for this draft assessment follows the Office of Management and Budget guidelines by ensuring that the public comments will be available to the peer review panel before it begins its deliberations on the adequacy of the science that is the foundation of the draft Bristol Bay Watershed Assessment. The OMB's 2004 Final Information Quality Bulletin for Peer Review recommends: "Whenever feasible and appropriate, the agency shall make the draft scientific assessment available to the public for comment at the same time it is submitted for peer review (or during the peer review process) and sponsor a public meeting where oral presentations on scientific issues can be made to the peer reviewers by interested members of the public. When employing a public comment process as part of the peer review, the agency shall, whenever practical, provide peer reviewers with access to public comments that address significant scientific or technical issues." A summary of public comments received by the EPA will be provided to the peer review panel. The current schedule follows the process recommended by the OMB Bulletin, by making public comments available to the peer reviewers and providing the public the opportunity to make oral presentations to the panel.

We have received feedback suggesting a longer comment period should be provided because the draft Bristol Bay Watershed Assessment purportedly involves important questions of state and federal law. The purpose of the draft Bristol Bay Watershed Assessment is strictly to inform the EPA about the significance of the Bristol Bay's ecological resources and the potential impacts of large-scale mining on these resources. This is not a regulatory action. The EPA conducted the Draft Bristol Bay Watershed Assessment based on authority under Section 104 of the Clean Water Act. If, in the future, the Agency decides to initiate a regulatory action, there would be a process for public review and comment.

Some parties requesting an extension expressed concern that the comment period overlaps with the Bristol Bay fishing season and that commercial and subsistence fishers would not be available to comment on the Draft Bristol Bay Watershed Assessment during this period. The EPA's public meetings on the draft Bristol Bay Watershed Assessment in June were well attended by over 2,000 people including many of those who practice a subsistence way of life and many in the commercial fishing industry. These public meetings were held in eight communities, including six within the Bristol Bay watershed. This is in addition to 16 meetings in Alaskan communities as the draft Bristol Bay Watershed Assessment was being prepared. To date, 870 individual letters and over 14,500 form letters have been submitted to the Docket on the draft Bristol Bay Watershed assessment, demonstrating that these groups are actively engaged in the public comment process.

In May, 2010, the EPA received several requests from Federally Recognized Tribes to use its authorities to address large-scale mining in Bristol Bay. The EPA's policy is to consult on a government-to-government basis with Tribes. We embarked on the draft Bristol Bay Watershed Assessment to help us better understand the Bristol Bay salmon fishery and the risks of large-scale mining to that fishery so that we would have a more informed basis for deciding how to respond to the Tribes. The resulting delay in acting on the Tribal requests has created uncertainty and anxiety in some Tribal villages. Maintaining the current schedule for public comment and peer review will minimize further delays by enabling the EPA to move forward with the assessment in a timely manner.

You also asked the EPA to post online the "cited reference, bibliography, and source data materials (approximately 2,000 documents) that are listed throughout the executive summary, assessment, and each of the appendices." The EPA is currently unable to do this as we do not have permission from the copyright owners to post these copyrighted materials online. Securing permission from all publishers would be costly and resource intensive. The EPA does not typically secure permission to distribute copyrighted materials since cited materials are publically available from other sources. This is consistent with the EPA's historic practice with respect to Agency risk assessments.

We will continue to accept comments until July 23, 2012. You can download the document as well as submit comments at: www.epa.gov/bristolbay. If you have additional questions about the draft Bristol Bay Watershed Assessment, please contact me or have your staff contact Rick Parkin, who is the EPA's lead coordinator for the Watershed Assessment at (206) 553-8574.

Sincerely,

Dennis J. McLerran Regional Administrator





# DEPARTMENT OF THE ARMY ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS P.O. BOX 6898 JBER, AK 99506-0898 MAR 1 4 2014

District Commander

Mr. Dennis J. McLerran U.S. Environmental Protection Agency Regional Administrator, Region 10 1200 Sixth Ave, Suite 900 Seattle, WA 98101-3140

Dear Mr. McLerran,

This is in response to your February 28, 2014 letter regarding the decision to proceed under the EPA's Clean Water Act Section 404(c) regulations (40 CFR 231.3) to review potential unacceptable adverse environmental effects of discharges of dredged and/or fill material associated with potential mining activities of the Pebble deposit in southwest Alaska.

The U.S. Army Corps of Engineers (Corps) has held pre-application meetings with Pebble Limited Partnership (PLP) since 2004. Through these meetings, PLP has been made aware that the proposed work would require a Department of the Army permit under Section 404 of the Clean Water Act. This process will include a public interest review, development of an environmental document in accordance with the National Environmental Policy Act and a review for compliance with the 404(b)(1) guidelines. However, at this time, the Corps has not received a permit application for this project, and is therefore unable to evaluate the impacts of potential discharges associated with the Pebble deposit.

The Corps has not yet begun the public interest review and evaluation process, and it would be premature to submit any information for the record at this time. If PLP does submit a permit application, the Corps would process it in accordance with the regulations found at 33 CFR Part 325; however, the Corps notes that under 40 CFR Part 231.3(a)(2) and in accordance with 33 CFR Part 325.8, the Corps cannot issue a permit for discharges of dredged and/or fill material into the defined disposal site until a final determination is made by the EPA on the 404(c) action.

Please contact me directly if I can be of further assistance. Detailed information desired by your staff may be obtained by contacting Ms. Karen Kochenbach, of Regulatory Division who can be reached at (907) 753-2782, or by email at Karen.a.kochenbach@usace.army.mil, or by mail at the address found on the letterhead.

Sincerely,

Christopher D. Lestochi

Colonel, U.S. Army Corps of Engineers

District Commander