

Testimony of Norman Van Vactor  
CEO/President of Bristol Bay Economic Development Corporation

Statement for the Record

Before the U.S. House of Representatives  
Committee on Natural Resources  
Subcommittee on Energy and Mineral Resources  
Hearing on “EPA vs. American Mining Jobs: The Obama  
Administration’s Regulatory Assault on the Economy”

October 8, 2013

Dear Members of the Committee:

Thank you very much for inviting me to testify today. My name is Norman Van Vactor and I am the CEO/President of the Bristol Bay Economic Development Corporation (BBEDC) in Dillingham, Alaska. I have lived and worked in the Bristol Bay region for the last 38 years. For 37 of those years I divided my time between Bristol Bay and Seattle Washington. I started as a deckhand on fishing tenders working my way through college as a vessel Captain, later joining the Shore Side Management team with Peter Pan Seafoods as a Plant Manager. With time I became the Bristol Bay Manager for Peter Pan Seafoods, one of the largest seafood companies in the United States. My responsibilities included managing the shore-based cannery and the floating processing ships. In 2006 I joined a smaller family owned fishing company and started a shore-based freezing operation in Dillingham. Subsequently I became the General Manager of Leader Creek fisheries based in Naknek Alaska.

From operating the oldest continually operating cannery in Alaska, to being involved with the development, construction, and modification of floating processors, to new startups, to taking on regulatory and other issues that preceded my direct involvement, my experiences throughout the fishing industry in Bristol Bay have been varied.

Through these experiences, I have seen first-hand the immense economic and cultural value of the Bristol Bay fishery. Last fall I was offered the opportunity to become the CEO/President of BBEDC. We are a regional community-based corporation charged with developing and enhancing the economic opportunities in the 17 communities that we represent and for the greater Bristol Bay watershed when possible. Our support and constituency is not race-based but residency-based. The indigenous people and folks like myself who call Bristol Bay home have one commonality – our lives and economy focus around salmon.

My testimony today focuses on the importance of the Bristol Bay economic engine – the pristine salmon fishery – and the positive role EPA has played and should play in assisting the people of Bristol Bay in protecting this immensely important economic and cultural resource. First I will define for you the economics of Bristol Bay; second I will speak to my business experiences as a manager of seafood processors in the community and as President/CEO of BBEDC; third I will explain my view on why the location, size and type of the proposed Pebble Mine presents an unacceptable risk to our economy and people; and finally, I will lay out

the reasons why my community and others have asked the EPA to step in and use its legal authority to help protect the Bristol Bay watershed.

## **Bristol Bay Economics**

The Bristol Bay salmon fishery is without question large and valuable. The commercial salmon industry has been in place for over 120 years to say nothing of the time period of subsistence and recreational use before that. It is the world's single most valuable wild salmon fishery and provides about 50% of the world's sockeye salmon production. The economic importance of the fishery extends well beyond Bristol Bay and Alaska, and is particularly significant to the West Coast States of Washington, Oregon, and California. . In fact, the Bristol Bay fishery provides 14,000 jobs to the nation. Every summer over 7,000 commercial fishermen fish in Bristol Bay and this provides essential income and additional jobs to watershed residents. The University of Alaska Institute of Social and Economic Research found the Bristol Bay salmon fishery has a total economic output or sales value of \$1.5 billion across the United States (see Attachment 1).

In the just completed fishing season of 2013, over 23 million fish found their way home and about 16 million fish were sustainably harvested. All that in a down biological cycle. Our fishery is robust and healthy because of the pristine and untouched watershed conditions. Consumers, increasingly aware of the healthy attributes of wild salmon vs farmed salmon, are seeking our wild salmon products. Our fishery and the economic value derived from it, while not without challenges, are looking better than they have for 20 years.

We know we have to invest in our own future. To that end, BBEDC recently acquired a 50% stake in Ocean Beauty Seafoods, one of the largest seafood processors and distributors in Alaska. In addition, Silver Bay Seafoods, a new player to the region and largely owned by fishermen, is building a new shore based processing plant with capitalization in excess of \$40 million. Silver Bay plans on being operational in 2014. These investments in our resource are being done with faith and hope for a continued healthy and sustainable fishery far into the future. Greater investment opportunity exists and I have no doubt that others would invest their resources if the cloud of uncertainty, posed by the threat of the Pebble Mine, was eliminated.

In February of 2011, after two years of engaging community members in 27 communities, the people of Bristol Bay drafted the “Bristol Bay Vision Statement” (see Attachment 2, excerpt below).

### **Bristol Bay Vision Statement February 2011**

**The foundation** of the Bristol Bay Region is committed families, connected to our land and waters.

**We believe** future generations can live healthy and productive lives here. Across our region, we share common values of community, culture, and subsistence.

**We see** a future of educated, creative people who are well prepared for life. This requires:

- Excellent schools
- Safe and healthy families
- Local jobs
- Understanding our cultural values and traditions

**We assert** the importance of local voices in managing our natural resources to continue our way of life.

**We welcome** sustainable economic development that advances the values of Bristol Bay people. Our future includes diverse economic opportunities in businesses and industries based largely on renewable resources. Large development based on renewable and nonrenewable resources must not threaten our land, our waters, or our way of life.

**We foster** cooperation among local and regional entities to coordinate infrastructure planning for stronger, more affordable communities. Investments in energy, housing and transportation promote sustainable communities and spur economic development.

**We recognize** the need to locate new sources of capital to implement this vision with a goal of generating self-sustaining regional economies.

**We are unified** to secure a prosperous future.

As you can see the people of Bristol Bay have a clear vision for the future. That vision is based on the fact that we are a salmon-based community and economy, and the vision is founded on a fish-first policy.

## **Positive Role of EPA Permitting and Enforcement in the Business Community**

My perspective, and the perspective shared by most of the industry at the production level with boots on the tundra and in the boats of BB, is that EPA has been present, fair and consistent. I personally had positive and helpful interactions with EPA during my experience managing the seafood processing community. Further, I found EPA to be effective and fair in permitting and enforcing standards, and this fairness helps promote positive business decisions.

Togiak Seafoods, which is owned in part by one of our member communities, is a good example where EPA provided clarity upfront so that the project could proceed. EPA told folks right off the bat that, given the volume of discharge and the location of the facility, certain criteria must apply to obtain a discharge permit for the site. This early input changed the way the community approached and implemented its business plan. EPA's input didn't stop the project; rather it changed it for the better of the community and industry.

We can construct things properly and run our businesses accordingly when we know the necessary standards up-front. This also provides needed certainty for both the community and investors. Standards and regulations are important for the public and regulated community, but they are not enough. We also need strong and consistent enforcement by EPA to make sure that there is a level playing field amongst the regulated industry. Consistent enforcement rewards those in compliance and also provides a clear message to the regulated community that there is a price to be paid for non-compliance with permits intended to protect the environment.

## **Proposed Pebble Mine**

The location, type, and size of the proposed Pebble Mine – as described in the Northern Dynasty Minerals Ltd.'s own publicly-available documents – presents an unacceptable risk to our people and economy. The proposed mine sits at the headwaters of the Kvichak and Nushagak River drainages, two of the most prolific salmon-producing watersheds in the world. These headwater areas include streams and wetlands that support the essential salmon spawning and rearing habitat of these drainages, and pristine water quality of these areas is critical for salmon production and survival.

The Pebble deposit is a low-grade ore that requires large-scale mining to be economically viable. If fully developed, Pebble Mine would be the largest mine of its type in North America, and would dwarf the combined size of all mines ever developed in Alaska.

Finally, a significant percentage of the ore within the Pebble deposit includes potentially acid-generating properties. The proposed Pebble mine therefore would require the use of a tailings storage facility where acid-generating tailings would be stored behind a dam in perpetuity.

In short, no iteration of the Pebble Mine plans I have seen is acceptable or good for Bristol Bay. These plans all contain unacceptable risks to the greatest wild salmon run left on the planet.

### **The EPA and Bristol Bay**

I want to highlight that EPA is involved in Bristol Bay because the community asked EPA to engage and protect the fishery and the people who rely upon it. Our community has received little support from the State of Alaska to date and we therefore turned to the federal government. In May 2010, six federally-recognized tribes and commercial fishermen petitioned EPA to use its authority under the Clean Water Act to protect our fishery. Other Bristol Bay area tribes, the Bristol Bay Native Corporation, and Bristol Bay commercial and sport fishing groups, among others, also requested that EPA take action to protect Bristol Bay. This was a collective expression of concern from the community to have certainty that its cultural and economic well-being would be protected.

The EPA responded to our request by conducting a rigorous scientific assessment of the watershed and the salmon fishery. The EPA's Bristol Bay Watershed Assessment allows the EPA to move forward to protect the region based on solid science-based information. In completing its watershed assessment, the EPA conducted two essential peer reviews of its document and supporting studies. The EPA has also been extremely responsive to public comments and concerns, including visiting our region to hold public comment meetings in six villages – Igiugig, Levelock, Naknek, Nondalton, New Stuyahok, and Dillingham. I personally participated in three hearings and meetings that EPA held throughout the Bristol Bay region. To me, the EPA has been very responsive to our concerns.

In addition to visiting the region, EPA had two public comment periods on the watershed assessment document. During the second public comment period, 98% of the people commenting from the Bristol Bay region – more than 1,200 people total – sent letters to the EPA in support of process and the watershed assessment, a truly remarkable level of agreement and participation from our region.

The Bristol Bay Watershed Assessment describes the location, size and type of the proposed Pebble Mine and clearly describes the threats to our lifestyle, community, and economic foundation. Again, no iteration of the Pebble Mine plans I have seen is acceptable or good for Bristol Bay.

In my opinion the EPA should develop performance standards that will ensure that we deal with the hard questions about the proposed Pebble mine up-front, thus providing greater certainty to businesses and the entire Bristol Bay community. The EPA has the legal authority to implement performance standards through the Clean Water Act, Section 404(c). The Riley/Yocom Report from 2011 (executive summary included as Attachment 3) describes the following performance standards that I believe EPA should implement to address proposed mining activities in the Bristol Bay watershed:

1. No discharge of dredged or fill material into salmon spawning and rearing habitat;
2. No discharge of dredged or fill material that is toxic to aquatic life;
3. No discharge of dredged or fill material that requires treatment of runoff or seepage in perpetuity.

EPA should take action now to protect Bristol Bay. There is a legitimate national interest in protecting clean water that has for centuries supported the people and economy of Bristol Bay. As a businessman, I would welcome someone telling me up front the core parameters of a permit for my proposed operations.

Our community has been dealing with the uncertainty caused by PLP for many years. In fact, this summer Senator Lisa Murkowski called for a stop to this lengthy uncertainty, stating that the proposed Pebble Mine has promoted “anxiety, frustration, and confusion” in many Alaska communities. I couldn’t agree more. EPA could, by developing performance standards now, go a long way to eliminate that uncertainty.

## **Conclusion**

The pure, pristine, and abundant water of Bristol Bay supports a salmon fishery that is the very foundation of Bristol Bay, unique in the world, and which is a national treasure. The people of Bristol Bay know we live in one of the most incredible places on earth – all due to our pristine fishery. And that fishery is threatened to its core by the proposed Pebble mine.

EPA's draft watershed assessment has added immense knowledge and value to the discussion concerning Bristol Bay. This information is vital to our community and future activities proposed for the Bristol Bay watershed. And just as we knew which standards would apply when I worked on bringing the Wood River Seafood Plant back to life, so too would responsible mining companies benefit upfront from knowing what standards to apply to prevent unacceptable adverse impacts to salmon fisheries.

In short, the threat to Bristol Bay posed by the proposed Pebble mine has gone on long enough. EPA should, as soon as possible, finalize the assessment and use its Clean Water Act authority to develop and implement performance standards that would apply to the proposed Pebble mine. I support EPA, and urge swift and decisive action by it to protect Bristol Bay.



Attachments to Testimony of Norman Van Vactor  
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Attachments:

1. Institute of Social and Economic Research, University of Alaska Anchorage, *The Economic Importance of the Bristol Bay Salmon Industry* (2013)
2. Bristol Bay Regional Vision Statement (2011)
3. Riley/Yocom, *Mining the Pebble Deposit: Issues of 404 Compliance and Unacceptable Environmental Impacts—Executive Summary* (2011)

## ATTACHMENT 1

# The Economic Importance of the Bristol Bay Salmon Industry



prepared for the

Bristol Bay Regional Seafood Development Association

by

Gunnar Knapp  
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Scott Goldsmith



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April 2013

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## THE ECONOMIC IMPORTANCE OF THE BRISTOL BAY SALMON INDUSTRY

### EXECUTIVE SUMMARY

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

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

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

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

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

#### Bristol Bay fishing boats

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

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



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

## Economic Impacts of the Bristol Bay Salmon Industry in 2010

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

## Overview of the Bristol Bay Salmon Industry

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

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

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

**A Bristol Bay salmon fisherman**



Bristol Bay Salmon Industry Permit Holders, by State of Residence, 2010						
Permit Type	Alaska	Washington	Oregon	California	Other States & Countries	Total
Drift Gillnet	845	642	98	109	156	1,850
Set Gillnet	629	127	38	34	99	927
Total	1,474	769	136	143	255	2,777

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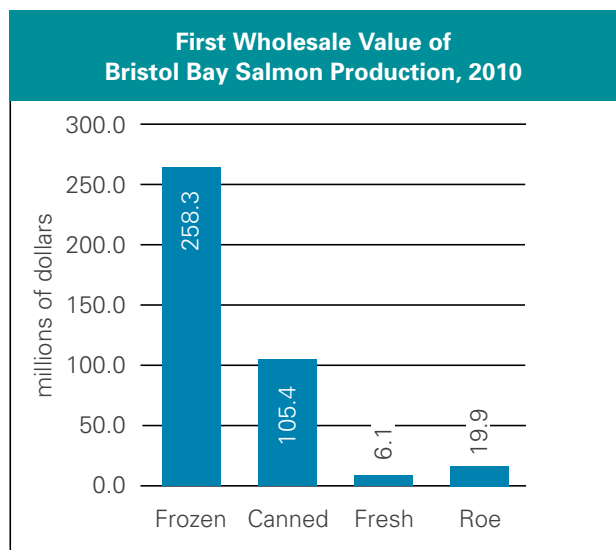
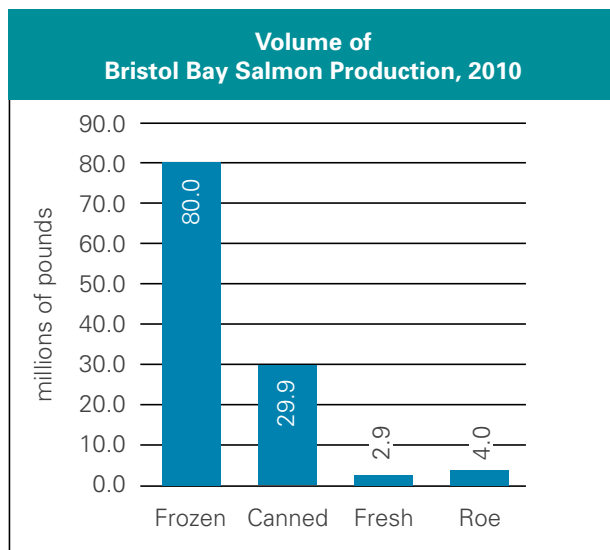
For each permit holder, who is usually a captain, there are typically two to three additional crew members. About 7,000 fishermen fished in Bristol Bay in 2010.

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

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



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



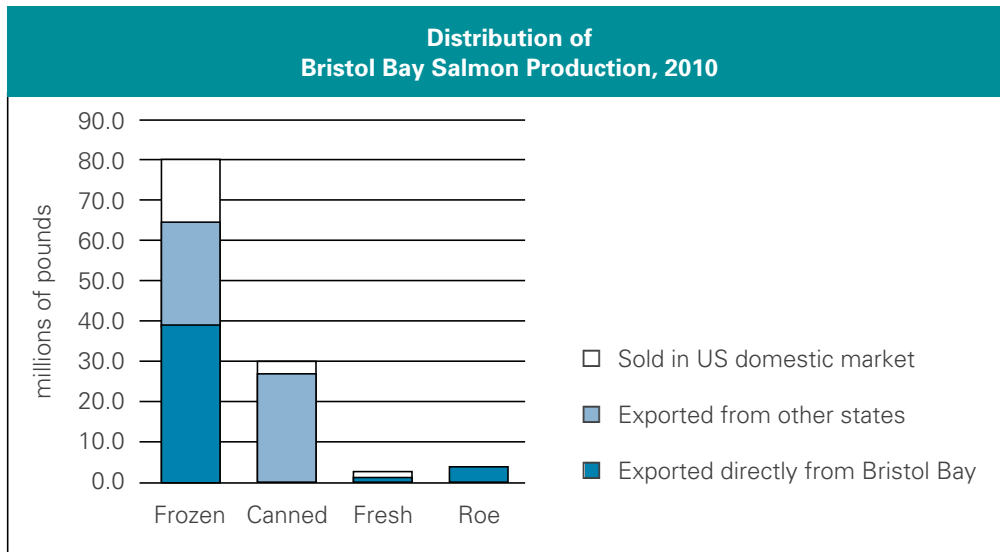


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About half of Bristol Bay frozen salmon is exported directly from Bristol Bay, primarily to Japan and China. Most of the remaining frozen salmon is shipped to Washington state where much of it is repackaged and/or reprocessed into secondary products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

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

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

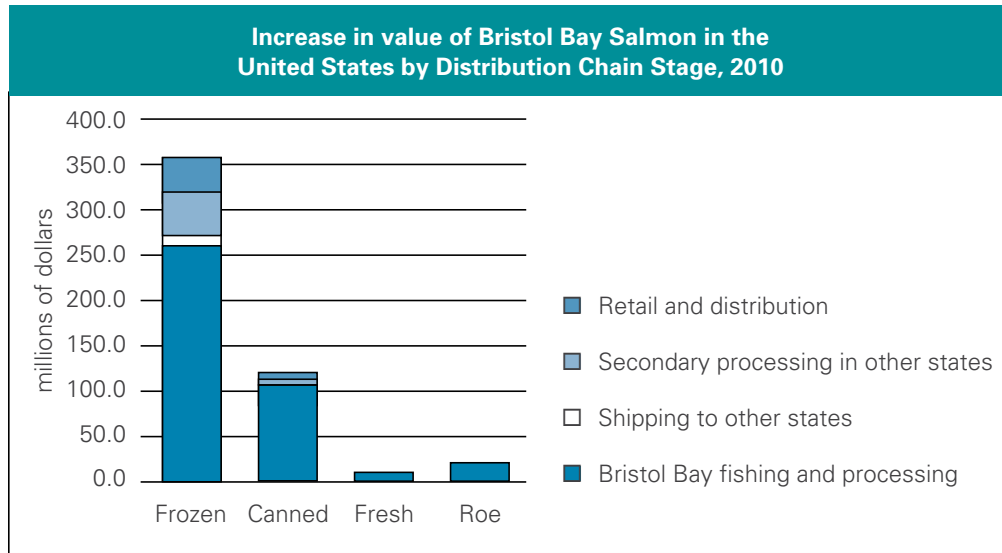


The value of Bristol Bay salmon increases at each stage in the distribution chain. Because a large share is exported, most of the increase in value in the United States occurs in Bristol Bay fishing and processing. About one-fifth of the total increase in value occurs in later stages of the distribution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

## Containers for shipping Bristol Bay salmon products



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### Economic Impacts of the Bristol Bay Salmon Industry

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

- » *Direct economic impacts:* Jobs, income and output value in businesses directly involved in harvesting, processing, and retailing Bristol Bay salmon.
- » *Multiplier economic impacts:* Jobs, income and output value created in other industries as Bristol Bay fishermen, processors and downstream industries purchase supplies and services, and as their employees spend their income.

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

- » Fishing and primary processing in Bristol Bay
- » Shipping to other states and secondary processing
- » Distribution and retailing (nationwide transportation, wholesaling and retailing of Bristol Bay salmon products in stores and restaurants throughout the United States)<sup>1</sup>

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

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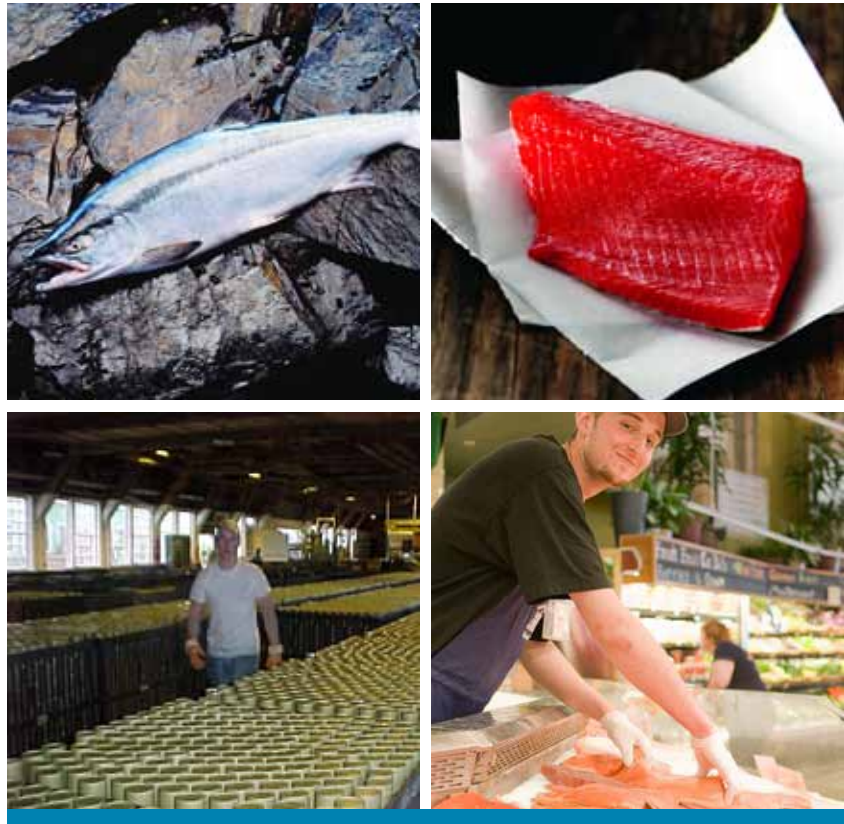
We estimated economic impacts for the United States as well as for Alaska, Washington, Oregon and California in 2010. To estimate economic impacts, we used IMPLAN input-output modeling software which tracks the ripple effects of payments between industries at both the national level as well as within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

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

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

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

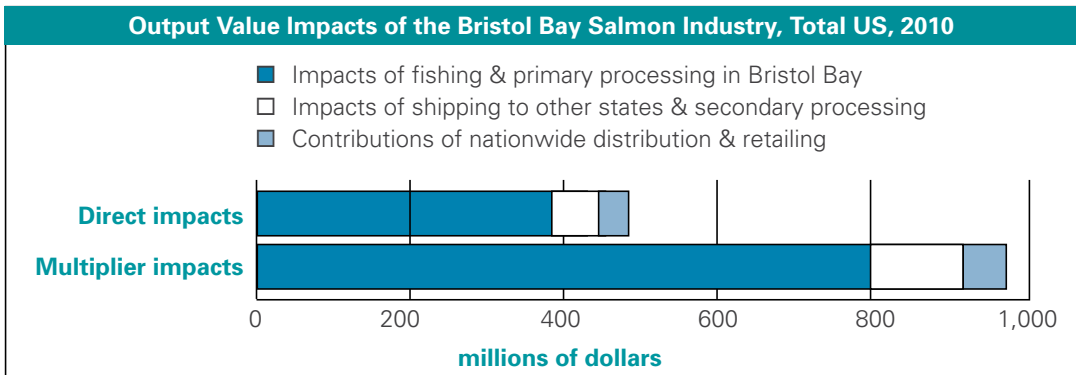
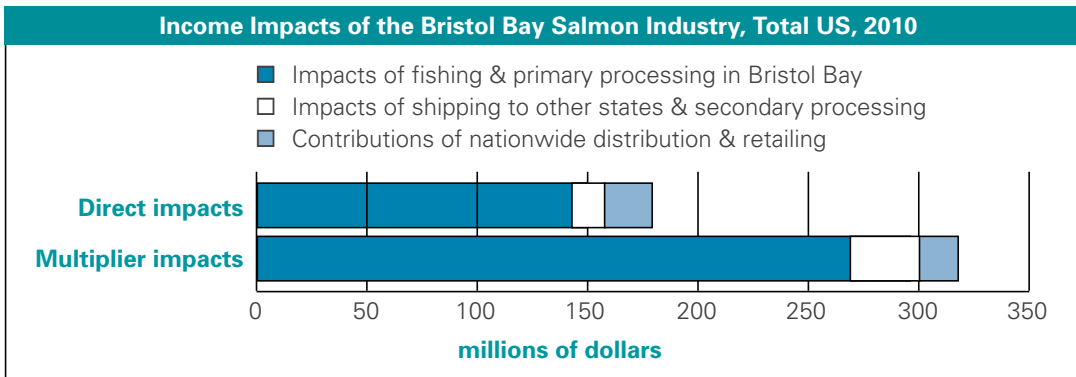
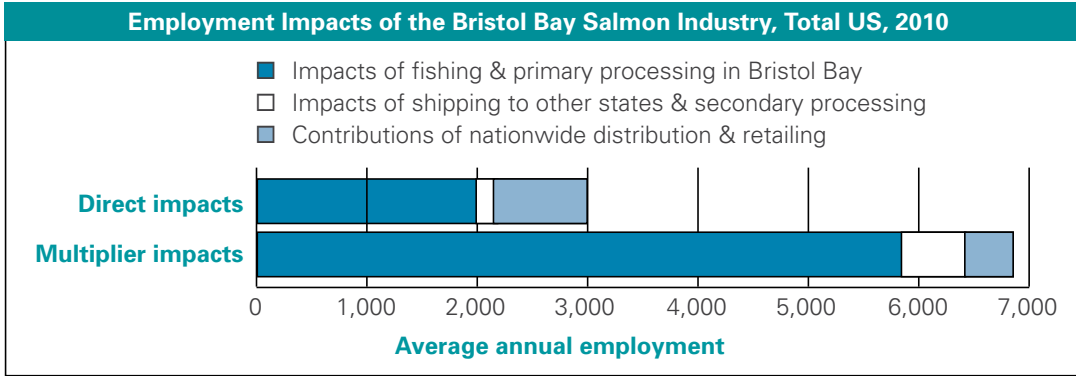
In 2010, Americans earned \$500 million from harvesting, processing, and retailing Bristol Bay salmon and the multiplier effects of these activities.



Seasonal Jobs in the Bristol Bay Salmon Industry, by State of Residence, 2010						
	Total US	Alaska	Washington	Oregon	California	Other States
<b>Fishing</b>	7,035	3,734	1,948	362	345	646
<b>Processing</b>	4,886	635	1,279	1,781	208	983
<b>Total</b>	11,921	4,369	3,227	2,143	553	1,629



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

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

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

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

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



## Conclusions

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



## ATTACHMENT 2

# Bristol Bay Regional Vision

[www.bristolbayvision.org](http://www.bristolbayvision.org)

### COMMISSIONERS

**Luki Akelkok**  
*Ekwok*

**Molly Chythlook**  
*Dillingham*

**Annie Christensen**  
*Port Heiden*

**Helen Gregorio**  
*Togiak*

**John Nelson**  
*Kokhanok*

**Hjalmer "Ofi" Olson**  
*Dillingham*

**Erin Peters**  
*Naknek*

**AlexAnna Salmon**  
*Igiugig*

### ALTERNATE

**Annie Fritze**  
*Dillingham*

### A PROJECT OF

*Bristol Bay Native  
Association*

*Bristol Bay Native  
Corporation*

*Bristol Bay Area  
Health Corporation*

*Bristol Bay Housing  
Association*

*Bristol Bay Economic  
Development  
Corporation*

## About the Bristol Bay Regional Vision Statement

Commissioners for the Bristol Bay Regional Vision project prepared a region-wide vision statement after listening to the opinions and concerns of nearly 1,000 residents of the region. Meetings took place in 27 communities between September 2010 and January 2011.

This Vision Statement reflects the shared values of the people of the region based on what residents in every community said. In each community, residents responded to an identical set of questions using electronic voting keypads; they also engaged in conversations around key issues.

Across the region, there is strong agreement about the most important aspects of peoples' lives and goals for the future. The electronic polling results and discussion notes for each community are posted on the project website. Compiled results for the region are also available. Please visit [www.bristolbayvision.org](http://www.bristolbayvision.org).

The following themes emerged from the community meetings:

- Participants in all communities hold family, connection to the land and water, and subsistence activities as the most important parts of their lives today, and expect the same to be true 25 years from now.
- When asked about things they would like to change in their community, the most often cited issue was alcohol/drug abuse and/or fear of domestic violence.
- People said the goal of education is to prepare youth to graduate with skills needed for success in college or vocational schools.
- Respondents welcome sustainable economic development that is based largely on renewable resources. Overwhelmingly, people said large development must not threaten land and waters.
- People believe they can live healthy and productive lives here in the next 25 years.



## ATTACHMENT 2

# Bristol Bay Regional Vision

[www.bristolbayvision.org](http://www.bristolbayvision.org)

### COMMISSIONERS

**Luki Akelkok**  
*Ekwok*

**Molly Chythlook**  
*Dillingham*

**Annie Christensen**  
*Port Heiden*

**Helen Gregorio**  
*Togiak*

**John Nelson**  
*Kokhanok*

**Hjalmer "Ofi" Olson**  
*Dillingham*

**Erin Peters**  
*Naknek*

**AlexAnna Salmon**  
*Igiugig*

### ALTERNATE

**Annie Fritze**  
*Dillingham*

### A PROJECT OF

*Bristol Bay Native  
Association*

*Bristol Bay Native  
Corporation*

*Bristol Bay Area  
Health Corporation*

*Bristol Bay Housing  
Association*

*Bristol Bay Economic  
Development  
Corporation*

## Vision Statement

February 2011

**The foundation** of the Bristol Bay Region is committed families, connected to our land and waters.

**We believe** future generations can live healthy and productive lives here. Across our region, we share common values of community, culture, and subsistence.

**We see** a future of educated, creative people who are well prepared for life. This requires:

- Excellent schools
- Safe and healthy families
- Local jobs
- Understanding our cultural values and traditions

**We assert** the importance of local voices in managing our natural resources to continue our way of life.

**We welcome** sustainable economic development that advances the values of Bristol Bay people. Our future includes diverse economic opportunities in businesses and industries based largely on renewable resources. Large development based on renewable and non-renewable resources must not threaten our land, our waters, or our way of life.

**We foster** cooperation among local and regional entities to coordinate infrastructure planning for stronger, more affordable communities. Investments in energy, housing and transportation promote sustainable communities and spur economic development.

**We recognize** the need to locate new sources of capital to implement this vision with a goal of generating self-sustaining regional economies.

**We are unified** to secure a prosperous future.



# MINING THE PEBBLE DEPOSIT:

Issues of 404 compliance and unacceptable environmental impacts

## EXECUTIVE SUMMARY

A number of groups have petitioned the United States Environmental Protection Agency (EPA) to initiate action under Section 404(c) of the Clean Water Act (CWA) to protect the fisheries of Bristol Bay from large-scale hardrock mining of the Pebble deposit in the headwaters of the Kvichak and Nushagak River drainages in southwestern Alaska. The Bristol Bay Native Corporation and Trout Unlimited have asked the authors of this report – both Clean Water Act experts with long and distinguished government careers – to prepare this report analyzing known information about mining the Pebble ore deposit and the potential impacts of doing so, and recommending potential 404(c) restrictions.

In order for EPA to consider 404(c) action, there must be a proposed discharge of dredged or fill material into the “waters of the United States,” including wetlands, and there must be a probability that the discharge(s) would result in unacceptable adverse environmental impacts as these are defined in federal regulations. In determining whether the potential impacts are unacceptable, EPA considers whether the proposed discharges would comply with federal regulations governing the issuance of permits for such discharges.

**READ THE FULL REPORT** [www.savebristolbay.org/mining-the-deposit-report](http://www.savebristolbay.org/mining-the-deposit-report)



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“Mining the Pebble Deposit: Issues of 404 compliance and unacceptable environmental impacts” evaluates publicly available plans to mine the Pebble deposit, concluding that these plans would not comply with federal regulations. There appear to be less damaging alternatives available to the project sponsors to extract copper than mining the Pebble deposit. Even the smallest initial 25-year phase described by the project sponsors would result in the permanent destruction of well over 9200 acres of fish and wildlife habitat, including the loss of over 30 miles of stream habitats. The secondary and long-term downstream impacts may be far greater, as the mining operation would require the impoundment of billions of tons of waste rock and tailings, as well as the potential need for storage and perpetual treatment of very large quantities of waste water from seepage and runoff.

Compared to past projects where EPA determined impacts to fish and wildlife habitats were unacceptable pursuant to its 404(c) authority, the impacts of mining the Pebble deposit are unparalleled. The report concludes that from a regulatory standpoint, these impacts are environmentally unacceptable.

**The report recommends** restrictions that EPA could proactively impose on regulated discharges of dredged or fill material (i.e., mine waste) from mining the Pebble deposit. These restrictions include prohibitions on discharges of dredged or fill material:

- 1) into salmon spawning and rearing habitat;
- 2) that fails testing requirements to demonstrate that the material is not toxic to aquatic life; and
- 3) where its runoff or seepage would require treatment in perpetuity.

These restrictions are rooted in well-established precedents and long-standing practices and policies within the CWA 404 program.

Asserting these restrictions proactively could further the goals of the Clean Water Act by providing certainty and associated time and money savings to industry and the public- including the indigenous peoples of the region to whom the United States has a trust responsibility- as to what will be required of any proposed plan to mine that deposit.



Terry Gunn

## ABOUT THE AUTHORS

**William M. Riley** had a distinguished career with USEPA working for nearly 25 years in the Seattle Office (Region 10). He retired in 2007 as the Director of the Office of Environmental Assessment and previously served as National Environmental Policy Act Coordinator, Regional Mining Coordinator, and Aquatic Resources Unit Manager.

**Thomas G. Yocom** is a former National Wetlands Expert for the U.S. Environmental Protection Agency, retiring in 2005. He previously served as a fishery biologist for the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. He has been a Wetlands Regulatory Scientist for the Huffman-Broadway Group since 2006.