Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	I'd like to discuss some of the weak points of the assessment. I believe that it's weak in regards to when discusses the seismic activity in that particular area.	DLG	0	Thomas Tilden	
	I believe that we need to put a little more emphasis on, and that is climate change.	DLG	1a	Thomas Tilden	
	My concern is the dam; the earthquakes; the possibility of the waste rocks; the fact that we contain this material forever, that's a long, long time	DLG	3a	Stevens	
	I cannot fathom thinking about open pit mine. Money is good for jobs, but the livelihood of your commercial fishermen is in jeopardy. Our food are in jeopardy, our future is in jeopardy.	DLG	5a	Anna Mae Ferguson	
	We need to get this assessment completed and then we need to go on to make sure that the 404(c) can be taken as the next step	DLG	8a	Russell Nelson	
	(Speaking in Yup'ik) he started commercial fishing in 1936; he fished until 2008. The concern that he's concern has been fish in Bristol Bay and then the major area that he is concerned about is the habitat that is already gone -- for the smolt and fish	DLG	9a	Dan Nunalook, Sr.	
	Fathers taught us to love the land, land for our bodies, land provides homes, land provides crops for women and children, land provides rivers for our fish and mountains for our hunting skills. We love this land, we respect this land, we protect this land.	DLG	17a	Nelson	
	it should be clear that storing mine underwater slow -- not stop acid generation and evidence of hundreds of operating mines around the world. Lots of industry document indicate that all impoundment leak to some extent over time. So the bottom line seems very clear, managing for the wild sustainable productive fishery or the visual likelihood of managing for water pollution and perpetuity and assessment makes a very compelling scientific case for 404(c).	DLG	19a	Bonnie Gestring	
	There's one rule that I think is relevant to this whole issue and it's overlooked, it is the temporal issue. Namely, how this decision impacts future generations. This should be a standard by which all decisions should be based in this watershed. First consider that the margin of error in the testing of the sulfite, and if you apply that margin of error couple percent to 10 billion tons of waste, that's a significant margin of contamination of the watershed compliance. Next, how will this withstand seismic activity? Is seismic in the watershed assessment. The next 25-year and 70-year mine scenario severely understates the probability of other mine development (note: transcript is not accurate – will rely on submitted paper comments)	DLG	20a	Dylan Braund	
	Why would anybody want to threaten there food -- our food source? We live in a known ring of fire of earthquakes.	DLG	22a	Wilson	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	Along with BBNC and 31 villages passed the resolution, and that is asking the EPA to act on the assessment and also act on the 404(c) process.	DLG	23a	Peter Andrew	
	I support the draft assessment and am hopeful that due process the EPA will vote the 404(c) based on some science, common sense, and a vision of future that understands the meaningful difference between the abstract of wealth and true wealth the Bristol Bay Region is wealth in body.	DLG	24a	Raymond	
	The international commission on large dams bulletin 121 addresses tailing dam failures. And the three most prominent reasons for fail tailing dam failures arises from over chopping unusual rain fall, seismic liquefaction, and important of institutional of failures. And I'd like to address each one of the those if I could. 7 First of all, I would like to say that the values you use when you're addressing seismic failures I think is inadequate, the data base is mines from 2000-mile from all over the world. I think your data base ought to be addressing specifically mines from seismically active areas, and I think that would change the probabilities of what's going on. In terms of overtopping, a couple of years ago, this was springtime, I saw the whole Basin from black coin all the way up that was underwater. And in terms of management of tailings facilities or institutional stuff, we don't have any human institutions that go back even a thousand years. I think that you need to assess -- reassess roots.	DLG	27a	Hofferle	
	Even without failure, a large open pit mine will have unacceptable impacts, fugitive dust alone are -- is great harm to people in the environment. Open pit mining is not rocket science, the technologies safeguards have been around a long time. Around the world all take leave and have caused water quality on issues, mostly open pit mines are a desert of mines, which Bristol Bay is pretty much a swamp. So even under the blown failure scenarios is not a question of if or when the impacts of the ecosystem will occur.	DLG	27b	Lisac	
	I think it's extremely conservative. I -- I think there's probably more threat than what you're seeing, but I appreciate you're recognizing the fact that Pebble doesn't have to put a mine plan for us to know what they have to do to make it economically and physically develop. So you guys definitely did the right thing here.	DLG		Patricia Treydette	
	If that mine goes through and there's damage to the water quality, we will lose our customers. You guys hold the key. We don't get a fair deal from the State of Alaska. We feel that there was 67 permits that needs to be issued to be Pebble Mine votes, 66 of them are going to come from the State of Alaska and one from you guys, it is EPA.	DLG	30a	Robin Samuelson	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	about 45 years ago I used to work for a mining company in Bristol Bay. And this was a mining company that used to dredge. The -- the dredge pond, which is behind the dredge, was upstream of the dredge, and the out roll from that, which I think was called the salmon river, flowed about a mile and a half into the crest near Bristol Bay. And the river itself was muddy and the bay for a half a mile out was just pure yellow, and obviously we had no fish.	DLG	31a	John Bouker	
	In the assessment, you generally use the open pit mines in the area. But I know there's a lot of talking about block caving touching on that full report; I think that needs to be explored further. Frankly, I'm more concerned about block caving where you don't know what's going on underground. And you don't know what's going to happen when things subside. So I hope that -- that could be expanded more.	DLG	34a	Dan Dunaway	
	I'm worried that, again, whether there is a fault or not a fault, the farm fishery community has a very available reason to say, "Hey, guys, community – world community, you guys might be eating tainted fish here." I'm worried about is what might take place if the mine is installed.	DLG	34b	Don Latsha	
	I would simply urge that EPA take action under the 404(c) to protect the Bristol Bay salmon	DLG	35a	Joe Chythlook	
	You know we can talk about dollars and cents and cost benefit analysis, fishery versus the mining; but we have very unique jobs here. We have owner/operator businesses and immense opportunities, very low cost. So if people want to get any businesses and build their businesses, and I think that's incredible, and not only that, but it's a value that you know the politicians look to small businesses in the country and how much that means to our economy, and this is really an example of where we have those small businesses. This is a small business mecca here in Bristol Bay.	DLG	36a	John Friss-Mikkelson	
	I hope that you can add to your assessment something that addresses clean drinking water; I didn't see that. There is another thing that I did not find I -- after looking through the three volumes. The biological threats to an environment that development brings such evasive plans there are evasive plans here in Alaska that add to the degradation of the salmon habitat, there are also evasive plans documented by -- that have killed the moose in Anchorage.	DLG	37a	Jennifer Robinette	
	I wonder if the risk -- that risk probability that is generated is underestimated, they come from the literature review of other mines around the world is one of the most unstable places on the earth. Another question that proposed to me after reviewing the document was the cost of maintaining the mines for long time, forever is a long time. Much longer life span of most corporations, so then who's going to foot the bill in the long run?	DLG	52a	Curry Cunningham	

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	COMMENT	LOC	#	Commenter	Response
	(The UAF Dillingham campus had a symposium and)A lot of people who are in this room presented all kinds of data that abstract books, and I guess you call it literature. We'd like to see some of that information maybe to be included in this next version of the document.	DLG	52a	Todd Radenburgh	
	I'd love to see a real definition of the world perpetuity. The second generations pay the -- to me it says seven million years, 100 million years, all this has implications of scale. So I'd like to see scale issues as well, individual scale, individuals going up to the communities, and both the social aspects as well as the major or natural aspect, ecosystems services; there is nothing like that in the document.	DLG	52b	Todd Radenburgh	
	And it's pretty astonishing to see in black and white what we know what -- happen to our renewable resources if any little mishap happens at the mine. We requested that the EPA utilize their authority to enforce the 404(c) on the Clean Water Act to protect the watershed that request still stands	DLG	54a	Dorothy B. Larson	
	And in perpetuity in essentially I think look like from giant -- either it seems like, you know, that eventually there will be an earthquake	DLG	54b	John Montecucco	
	I also ask that you consider -- or continue to consider, if you have our cold temperatures and recovery rates of our plants, fish, water and so forth when considering mitigation measures or damages to the area. The recovery rate in Alaska, I believe, is very slow. We were at very cold temperatures, 30 below temperatures for weeks. I also was pleased to see that assessment considered rain falling on top of spring snow.	DLG	57a	Joseph Faitl	
	If this Pebble Mine goes around, could -- never be able to fish the same way as we do now. I'm sure that people going along with this will try not to pollute our 18 fish, but it's very, very sure they can't.	DLG	57b	Katrina Mower	
	We have been concerned with the Pebble for many years and asking the EPA to please use your authority under section 404(c) of the Clean Water Act to protect our watershed and everything that goes with it.	DLG	60a	Delores Larson	
	The city of Dillingham depends on serving as a major hub and import for the world's largest salmon fishery. And on the commercial wild salmon fishery has been the backbone of many people's livelihoods and subsistence for many generations. There are 297 commercial in the world watersheds here in watershed of those 156 drift, 112 near Dillingham. Multiply that by three, that's the number of jobs created. You can see that Dillingham hosts one of the last working fisheries in the nation.	DLG		Jody Seitz	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	Thanks for endorsing the 404(c) and for setting the issues, and I really appreciate it. My concerns outline your draft assessment at two levels of uncertainty. The first level of uncertainty is the uncertainty the inconclusiveness of the existing knowledge that we have in the ecology region. We still don't know -- very little of the geology, biology, seismology, and their interactions in the sensitive area that we call Bristol Bay. We need science and setting up the area before we risk large scale mining. My second level of concern on the uncertainty is the extent of our ability to quantify and effectively mitigate potential failing on operation and closures of mines the size of the Pebble. Experts have proved the operations were three times in the last couple of years. We were told that they somehow leaked; and they said it never happen, and if it did, it could be effectively vague; that the experts were wrong on both counts.	DLG		Jerry Liboft	
	What I would like to see EPA do is wait till they submit a proposal and then take action. Don't wait until the permitting goes through I would like to see what they plan on doing. I am going to be too busy to make an intelligent comment. I looked at it for about an hour but there is a lot of information to digest and I won't be putting my boat away until the end of July. I won't be able to comment on anything until August or September, so I would like to see the comment period extended	IG		Joe Alvarez	
	If this development up there is developed, I think the potential for a disaster is imminent. It will affect the spawning beds for the salmon. Wherever you start in the lower 48, the Columbia River, Sacramento River. High development has destroyed the salmon industry out there and talk to a lot of fisherman from the lower 48 that come up here to fish and they say take care of our fishery up here you've got a golden opportunity. Another thing I want to tell you is that I don't think you should extend that comment period.	IG		Hjalmer Olsen	
	I didn't see anything in the report about the permafrost and about how the ground when it freezes, it heaves. I guess my concern is that this dam if this dam is not covered and then the ground heaves, then the tailings would be able to seep into the ground as you know the wetlands here - it is all water underneath and it is all soppy. I wish you would look more into the permafrost and how the ground would change levels. I know from personal experience around here, the houses, they shift, the buildings they shift, s that is something that they should really, really consider even if they could do this 100% perfect okay they should look into it. Everything around here is lopsided because of it	IG		Kristina Rameriz	

Spoken comments from public meetings

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	most importantly to carry through with all of your studies a review of history. When EPA did their study in 1990-something on a dam somewhere. What was the result of that study and how did it compare to fact. Show your error bars from error bars from specific documented cases. If you could carry that through it would be very useful.	IG		Don Shepard	
	It looks like they are polluting already. I want EPA to look into what they are already doing with the drill holes and the mud. It looked like pollution and like maybe there was already acid coming up from the drill holes. I would like that to be looked into and seeing maybe if it is polluting and already happening.	IG		Renee Zacker	
	information that is available from Northern Dynasty minerals, from Pebble Partnership and from other state agencies as to what resources already exist in the region is monumental. The assessment has taken those data into consideration and has looked at what a potential mine would look like in the region and in that area and it has accurately determined on a minimal basis that there is going to be an impact to the area to the fishery and the habitat. I've also looked at the assessment through the eyes of this region and the jobs that are talked about extensively. It is not EPA's job to create jobs. It is EPA's job under the CWA to protect the waters of the US. The state of Alaska has failed to do so. I strongly urge to stay on time and stay on target and make a final determination with the final assessment.	IG		Brian Kraft	
	On Lake Iliamna you can find north winds on the Kokhanok winds you find east wind. Think of all the machinery exhaust that will blow over and fall on the Scott River side. That is unacceptable. When you have a shift of wind, it will fall right in the middle of Iliamna. Look at before during after pictures of large scale mining and if you keep that as true,	IG	13a	Roy Andrew	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	I am particularly concerned by the likelihood that the mine waste will become a severe and lasting source of acid mine drainage to the rivers and streams below the mine. Acid mine drainage is like opening Pandora's Box. There is no fix for it. The assessment estimates that there are waste rock piles alone could generate up to 2.8 billion gallons of contaminated seepage every year and that the copper concentration of that seepage could be so high that the entire flow of upper Talarik Creek couldn't provide enough dilution to meet water quality standards. So failure to contain those releases could cause the entire creek and possibly portions of Iliamna Lake to become toxic to fish. There has been talk about storing the acid generating waste rock under water or in the tailing impoundment or in the open pit after the mine has been closed. I would like to stress the importance that storing mine waste under water will only slow the process it doesn't stop acid generation and there is ample documentation even with industry records of hundreds of operating mines around the world. These records say that all these mines leak to some extent over time. The bottom line in terms of my take away is that there is a bit of a choice between managing for a sustainable a fish population in perpetuity or managing mine waste and contaminated water in perpetuity. The assessment makes a compelling case for initiating a 404c process.	IG		Bonnie Gestring	
	BBNC and the village corporation have a long proud history of doing economic development in the region and we want to continue to be able to do that. However, I could not speak more eloquently than my BBNC board members have done in making their request to EPA. The point I would make on behalf of the landowners, is that there is sustainable development that will need to happen even as we increase the protections for the development of such projects. We do appreciate all of the science and effort that has gone into the assessment. Considering not just the corporations but other private land owners as well who are impacted by such significant decisions. The renewable resource of fish is priority and is not matched anywhere in the world and we want to continue to support that.	IG		Tiel Smith	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	This won't be the first time we have had things like this go under the radar. In my brief overview, I would say that the one thing that stood out is that you compare apples and oranges. In looking at the sockeye salmon you are looking at Bristol Bay and your document name is Bristol Bay assessment. Possibly 2/3 of the runs don't come within 100 miles of this system. Back when I fished Egegik they were looking for 10 million, now they are looking for 5. When you say 82,000 are in the system that doesn't seem like a lot. A decent fisherman will catch 20,000. What I would like to see more of in the assessment itself is percentages and rates and what the impact would exactly be on the resource. It speaks also to acres and miles, but it doesn't speak to the system itself.	IG		Sandra Alvarez	
	Figure 5-14 on page 566 and figure 5-16 on page 573 illustrates the proposed transportation corridor and the distribution of salmon, Dolly Varden, rainbow trout and the sockeye spawners that use this area. What, if any areas of similar construction can you provide regarding the overall risk of this type of destruction to the spawning population? The destruction and the risks of this making it are far too great for me to just sit back and not inquire if whether or not the proposed Pebble mine, our existing fisheries and our subsistence way of life can really coexist? Natural disasters are unknowable, unstoppable and unpredictable in most cases. I ask that you please delve deeper into these natural occurrences and the potential it plays on the withstandings of the proposed pit, and things to be built, especially the seismic activity around the proposed Pebble site. It is my understanding that perhaps the fault lines run closer than what is illustrated in the figure 4-11 on page 442. I urge you to take necessary action under 404(c) and protect our Bristol Bay wetlands, streams and our subsistence way of life.	LL		Danielle Dawkins	
	Minute concentrations of copper affect salmon, not to mention acid production and all the other potential impacts of monumental size construction activity. Witness the demise of the Alaska coastal zone management program and the formation just the other day of groups to oppose the reinstitution of the ACZMP. Based on that I personally believe that the state of AK permitting process which has been tweaked in recent years to favor dollar based development, is not capable of assessing the risks of this unique situation that involves unique life styles, unbelievable natural resource productivity and hugely valuable economic productivity that when managed properly can be sustained in perpetuity.	LL		Arthur Bloom	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	Additional and more current data is available that addresses the link between mining, tailings activity and seismic activity. Mining, mine pit dewatering and eventual refilling of the mine pit, as well as tailings storage, may increase pore pressure beneath the site and lubrication, tectonic stress and fault slip in a mine site. Even at low magnitudes, current triggered earthquake could lead to increased liquefaction, tailings pond failure and chronic contamination of the Bristol Bay watershed. The size of the proposed operations at the Pebble Mine site, along with the potential development of other adjacent mineral deposits could significantly impact the water balance across the landscape and have serious implications for the tectonic stability of the proposed mine and the surrounding region. Although the Lake Clark fault is considered inactive, a 2002 study which I can provide you with citations, suggests that triggered earthquakes are just as likely in stable as in active tectonic settings. Induced seismicity may increase the probability of tailings impoundment failure, and that is something that we cannot risk here in BB.	LL		Kendell Barbary	
	The Pebble Mine would be a short term economic gain for only a handful of people, most of whom are not from the country, at the expense of long-term stability for the local people who will be affected by the mines impact. They talk of seeing the mine go through to give people in the region jobs. But if the mine were to go through and the area is devastated, due to an accident or something, then what reason is there for anyone to stay in the BB area? Without life sustaining fish and wildlife for subsistence and commercial use that we depend on and enjoy today and hopefully for generations to come.	LL		Greg Andrew	
	the people of BB and other concerned fisherman and subsistence users and as far as I'm concerned I think more enlightenment about the Pebble project will only help smooth the waters for better understanding of what our loss in that salmon area could be. Not just that area, but the ripple effect that in so many ways. I encourage people to take more of an interest and also express more concern about the environment. Many many times over the past few years, I have asked people why you support the Pebble project. The first thing I hear is "well, it will provide jobs," which is true. However, I don't hear enough about concern for the environment and long term effects, or no concern for the environment and this is very very troubling. I want to remind people that EPA is doing what they should do, what they were requested to do, and I can't thank them enough for that.	NAK		Bella Hammond	
	I would like to request a 120 day extension on behalf of the APC and Wetaviiq.	NAK		Donne Fleagle	
	Elsewhere around the world, hundreds of millions of dollars are being spent to restore habitat that has been destroyed. Here it is ours to protect, not destroy.	NAK		Norm Van Vactor	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	The assessment is appropriately focused only on large scale mining development. Thank you for not focusing on other infrastructure development that is critical to the regions survival. The assessment is not about roads, the assessment is not about runways and airports. The assessment is not about small property owners.	NAK		Daniel Cheyette	
	The Pebble Partnership views the watershed assessment as rushed and inadequate. Rushed because EPA has only spent 11 months on preparing the assessment. Rushed because the first meeting was held on this 1,100 page document are being held only two short weeks after the draft of the report was released and rushed because EPA is allowing only 60-days when the people of Alaska are being asked to comment in the middle of summer. The current draft of the assessment is inadequate because EPA spent only 11 months studying and area of 20,000 square miles, while the Pebble Partnership has spent eight years studying approximately 1,500 square miles. Inadequate because the Pebble Partnership study is almost 30,000 pages for this acreage and the EPA study is about 1,100 and inadequate because their environmental studies were gathered and analyzed by scientists on the ground and field research and EPA by their own admission did not spend time analyzing the field data.	NAK		Sharon Wilson	
	River. Most of the information in the assessment is based on the low resolution national wetlands inventory data, and vastly underestimates the area impacted by mining in a landscape where I personally sank into the saturated tundra up to my thighs more times than I wish to recall. Given their importance to fish and wildlife, more effort is essential to accurately estimate the wetland area in the region.	NAK		Sara O'Neill	
	The State of AK is acting like a development partner of Pebble. Whether it is temporary water use permits, dumping directly of drilling material into the groundwater, artesian slime running down the hill. Your watershed assessment, one area I think can be stronger is that you underestimate the size of potential damage. You are buying the argument that there is no plan. There is a plan, for a water rights application in 2006 where there is approximately 2.5 billion tons. It has to be a plan, or they have to give up their water rights application, because the law requires to have the priority date, you have to have a plan of appropriation of the water. They can't have it both ways	NAK		Rick Halford	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	Even if there weren't any accidents or catastrophic failures, common sense and now science tells us that development and operation of a mine this big would affect our fish populations and water quality. I am worried that even their exploratory drilling over the last few years has degraded water quality. We drink from a well at our house, and the kids enjoy clean safe water from the ground. I don't believe that Pebble can guarantee that acid, metal and other contaminants won't be released upstream from us over the life span of that mine. They might not even be able to detect that, which puts us all at risk.	NAK		Sharon Thompson	
	We have grandkids, we have grandparents, and we have moms, dads, uncles, aunts that live in this community. They eat the fish, they pick the berries, they eat the berries, and they take pictures. You eat moose, you eat caribou, this is very very important to our community. I am a subsistence user myself and you guys to help us out would be appreciated. We are asking as one voice, even though there are a lot of us in here, we are one voice.	NAK		Olaf Hanson	
	They have not built a containment pond that does not leach.	NAK		Fred Pike	
	the last thing I want to see is this damn mine here. It's a toxic waste spill waiting to happen and people in this room are here for a reason, because they want to continue to come here and see the sustainable and whole fishery.	NAK		Greg Harris	
	I live between the Rogue and the Klamath Rivers. Those are nice rivers, but severely degraded, and they will never recover in spite of millions of dollars that have been thrown at recovery of the salmon that once resided there. They are always imperiled. We understand full well what damages are, what Pebble is proposing here is larger than anything that we know of.	NAK		Larry Vanderlin	
	The elders have been telling me they haven't really had a chance to sit down and talk about it yet. I think that out of respect for the elders and the indigenous people here and the land holders, that just for that reason alone we should be able to go over some of this stuff so that we could make great decisions. They feel like they are being pressured.	NAK		Richard Wilson	
	This area sits in one of the most geologically active zones anywhere in North America. The impact of a sizeable earthquake is unknown, especially when you take into consideration what happened to Japan.	NAK		Tim Cook	
	My understanding is that this mine will require hundreds of millions of gallons of water to transport some 200 billion tons of crushed ore 87 miles to the coast. Further, the mine will require hundreds of millions of gallons of water from the water table for settling ponds for these mines. I just want to state that I'm not sure if we know what our water tables are here and what they will be 25 years from now. exposed. Our climate is changing and the water table is changing also, so what we change our predictions on today may not be true 25 years from now.	NAK		Mark Connor	

Spoken comments from public meetings

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	The subject of impacts of copper on the salmon are well documented, include, but are not limited to the seminal effects on salmon, liver damage, retarded growth among others.Additionally, existing water quality standards for the state of Alaska are not sufficiently protective of salmon function. Therefore, the mine could meet water quality standards and still have a detrimental effect on the fishery.	NAK		Dylan Brand	
	I am particularly concerned about the likelihood that the mine waste that is generated will become a severe and lasting source of acid mine drainage to the rivers and streams below the mine. I look at acid mine drainage as opening Pandora's Box, because there is no fix to acid mine drainage it becomes a matter of trying to manage it. The assessment estimates the waste rock pile alone could generate up to 2.8 million gallons of contaminated seepage every year and estimates the copper concentration in the seepage to be so high that the entire flow of Upper Talarik Creek could fail to meet water	NAK		Bonnie Gestring	
	I ask you to please take into consideration what is at stake here. Not just the environment we live in but also the welfare of our people and our traditional and cultural way of life is on the line. I know mine proponents want to delay the assessment because it is well done and underestimates the likely impacts and is based on good science.	NON		Kristi Jefferies	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	I think your assessment of the potential impacts of mineral development to fisheries resources actually is very conservative, almost too conservative. The reason I think this is that you assume that the Pebble prospect would only develop 6.5 tons of their 10.8 billion ton estimated resource. Because all estimates of the mineral wealth, jobs and benefits from that particular resource are based on full exploitation of the 10.8 billion tons. The watershed assessment should consider impacts of expansion to the 10.8 billion ton Pebble Mine scenario. Mines will generally expand and expand as long as they are economically viable, as do the impacts. One thing that I didn't see in the assessment is that waters in the region are very low hardness. They cannot inputs of acid. Pebble Limited Partnership's own data indicate that it will be an acid generating mine. The majority of the ore in there is acid generating. Because the waters have very low hardness and very low dissolved organic carbon, and I studied this, which means there is high potential for rapid impacts. It will start with the algae and then the invertebrates, then the fish and it is something that is very important to consider. The information on wetlands in the region is not well characterized. I've spent a lot of time on the ground at Pebble, the Koktuliś and Talarik, and it is very very wet. I think it is even wetter than has been characterized and the impacts will be much greater than have been characterized. As most of you know, of all of the fish bearing streams in Alaska, fewer than half of our streams have ever been surveyed. Many streams in the region have never been surveyed and looked at. Just a few years ago I went out and we added 105 miles of anadromous waters that no one had ever identified, including streams on top of the Pebble deposit. In the cumulative impacts section of your assessment, it indicates about 200 miles of streams or rivers could be blocked or destroyed Over 20 hundred acres could be converted to toxic waste dumps, which would require constant vigilance and maintenance into the future, possibly forever. I think it would be good to add to the cumulative effects section, a comprehensive table that adds to 10.8 billion scenario of development for Pebble along with the Groundhog scenario and three others, I can't remember the names right now. But I think that putting a table together so that people could see how many lost streams, how many blocked streams, how many areas of wetlands or estimated areas would be covered, all the way to the scenario, because frankly I think that if the Pebble Mine has 10.8 billion tons and they have potentially more based on new maps that they have, then they will develop all of it. I think it is only fair to the people who live here that they have a good idea of what they may lose. Despite some of the underestimates of likely impacts to fisheries, I think the watershed assessment and also the preponderance of scientific evidence on mining, indicated that BB fisheries would be irreparably harmed by large-scale mining due to how large the mines are; the type, because copper sulfide mines can create acid and copper is the most toxic to aquatic life. Also, where it is located in the headwaters, in a very wet region down the Talarik into Lake Iliamna, which is the world's largest sockeye salmon rearing lake, where hundreds of millions to even billions of sockeye salmon rear 1-2 years before they go to sea. If there were to be an impact in Iliamna, it would destroy the Kvichak run. In the Nushagak run, impacts there as you have indicated, it would harm not just the Chinook, but many of the other species.	NON		Carol Ann Woody	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	We encourage you to use the Clean Water Act to protect Bristol Bay. This fight has gone on long enough and it is time for people to have a chance to begin to heal. While the watershed assessment does examine the possibility of not just one massive mine, but a massive mining district being built right alongside Lake Clark National Park, we don't think it goes quite far enough to understand risks that a massive mining district would pose to the National Park, especially the mining plans that are in the headwaters of the Susitna River, a freshwater tributary of the Clark. You would think that living downstream from of a 4 million acre national park, especially one of the best and vast in the country would guarantee that you would have clean water and a clean environment to sustain you for generations. Unfortunately, as you have heard today and you have heard throughout the bay, that is just not the case with what looms just over these hills.	NON		Melissa Blair	
	There are citations that need to be annotated a lot more thoroughly. I don't see a correct reference to anything that is cited in there and realize that it is draft and you say do not quote or cite anything from that source, but in my professional opinion the writing needs to be absolutely detailed.	NON		Rick Rau	
	We celebrate that and have done a tremendous assessment of our oil and gas opportunity and our hard rock mineral potential over the past forty years. But as you can see, if you look carefully in our region, there is not a development that we have found and we have spent thousands and millions of dollars looking for something to develop. We have never overlooked the fact that salmon and game have been so much as priority in our region. We recognize that. Especially in light of Pebble project being looked at so closely. We not only know about that, we have studied it and we know about many other prospects and exploration targets in the region, none of which today make any sense to develop, based on the necessity to look for increased protections to the fish and game. I would conclude this thought by saying; this is significant, because we own the most land in the region as a private landowner, 3 million acres.	NON		Tiel Smith	
	When you look at the Pebble seismic data in that big pile of paper that they sent out, they put in about seven pages of seismic data and two of them they copied from someone else. They make this assumption that the Lake Clark fault comes straight down the lake, which aims at Pebble and all of the other faults just keep on going although they know there are fault lines that run right through Pebble, and in their data they make the assumption that the fault line goes either to the right or to the left very quickly and that it goes around Pebble. I don't see how they can come to that conclusion making an assumption like that. So that kind of data needs to be added.	NON		Russell Nelson	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	I thank EPA for sitting down with my tribe in government to government consultation. It is too bad that the state of AK can't do the same. I would like to speak of the irony that the state wants more time for public comment. You have scheduled eight public meetings and a 60-day comment period so that we the public could speak to the assessment and we will get another opportunity to comment at the peer review of the document. The state of AK should look to EPA for the right way to get public comment. The state attorney general Geraghty complains that 60 days is inadequate. He had the audacity to ask for four months for the public and state to address the technical and legal merits of this assessment. Yet, the audacity of industry representatives who express their alarm that the public isn't given sufficient time to respond. How ironic and how hypocritical. For the last 24 years, the mining companies have been exploring for copper and gold on state lands in the headwaters of BB, hoping to develop the largest mine of its type in North America. They have drilled 1200 bore holes, some more than a mile deep and used fragile tundra and wetlands as their waste dump; criss-crossed subsistence areas with tens of thousands of helicopter flights. Removed millions of gallons of water from streams and ponds that support spawning salmon and other freshwater fishes. They have done all that with the states permission. Without public notice, without inviting public comment and without public hearings.	NON		Kim Williams	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	Thank you for gathering the science and a potential mining scenario to address the potential impacts that a large scale mine will do to our salmon streams and the impact it will have on us as a people. We are represented by trustees for AK, and we went to court seeking an adequate opportunity to address the technical and legal merits of the state exploration permit. The issue is on appeal to the Alaska Supreme Court and the state adamantly insists that the public has no right to even know about such permits in advance, let alone comment on them. The state systematically avoids any public notice and any hearing before it grants mining exploration and water permits. Do they give 60 days? Never. Even when the state does allow public comment, as it did for development of the Rock Creek gold mine near Nome. The comment period is half as long and the state is downright stingy in granting more time. It allowed the public just three extra days to comment on Rock Creek. They approved the project and then were forced to shut it down when the warnings from the critics proved accurate. Had the state been doing its job for the past two decades, it would have by now its own full record of public participation on the very issues raised by your draft assessment. It would have undertaken its own analysis of whether exploration and development are in the best interest of the state. The state would not then need 60 days to comment on the draft; rather they have been doing everything in their power both politically and through regulation to grease the wheels for development. They are ready to defend their rigorous permitting process and are quick to tell EPA "hands of Alaska" because their rigorous permitting process. But I am here to say, their use of a marine land classification in their own Bristol Bay area plan is their way for them to make it easier for permitting. We all know in this room that there are no walruses around the Pebble site. That is marine land classification for you. So, if the state of AK is interested in seeking public comment, through their exploration phase of the Pebble deposit, which is a large scale mine that gets addressed in your assessment, they would already know and conclude that mining at this scale would cause a loss of spawning and rearing habitat for both anadromous and freshwater fishes. The loss of wetlands that support migratory birds and habitat for caribou and other large game. It is not EPA's role to solve for jobs in our region, nor is it your job to solve the declining population or the closing of our schools in our region. Your role is clean water and the protection of these waters. The regulations need to ensure that we have clean water.	NON		Kim Williams	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	Yesterday, June 6 was a pretty important day that not everybody recognizes. Yesterday, 100 years ago, my father was awakened by mother. This was 1912. Katmai had just blown off. It was dark for three or four days. He said it was something that he would never, ever forget. I ask you guys to take another look at the seismic and volcanic activity which is fairly close to this particular project. I'd also like to remind you that the BBNC had not taken a position on Pebble or large scale mining lightly. We studied it for a few years. We agonized over it. With the support of our people, we feel very very, very, confident that a major part of our people want us to take this position and we did. So we are asking EPA along with the BBN, which in March passed a unanimous resolution asking EPA to come in and do the assessment and get it done. We will be asking again to use section 404(c).	NON		Peter Andrew	
	We should do a 404(c) now and I read your assessment and I have a couple of quick points. On the water reserves for what the mine takes out - and puts back in there - that is not enough for us to navigate the river. On low water years we won't be able to traverse our boats across the sandbars because it's only ankle deep. One other thing I notice is that you don't declare king salmon as an endangered species. They are the rarest of all salmon. In your own comments, you stated that 30% of them would be affected. Well a lot of them go up into the Koktuli and they spawn there. To lose that species even more would be a bad thing.	NS		Richard King	
	I would argue that if you came out to get local testimony that you couldn't have come out at a better time, because you got everybody before both commercial and subsistence fishery season starts and this is the ideal time to get the testimony. If the Pebble Partnership gets to the permitting stage this fall, we want this assessment done to have the ability to have your agency and all of its resources, technical and otherwise, to have had that broad brush look at the whole area, and to look at it, not only from a cumulative risk standpoint, but also from the ecological value. What is the value of this region, and how does it tie in on this perhaps small footprint that could have devastating impacts all over the entire area if it is allowed to go forward and there is some kind of catastrophe.	NS		Bryce Edgmon	
	I own land (listed several places) and also up close to mines. My concern is that when you implement something, you have to look at the land adjacent to it in this assessment. I have land that is going to be valuable that I will pass on to my kids.	NS		Jimmy Hurley	

Spoken comments from public meetings

	COMMENT	LOC	#	Commenter	Response
	I have notes here from 2007 from some of the youth that you see here. These are notes that they had written to the state of AK. You heard Kim say and I will say again, the state is not listening, so EPA I am going to ready briefly if I can go through these quickly and if I can't I will let you know. Dear representatives, I am in second grade. I want our land left alone. Dear state representatives, don't hurt our animals and our fish and our land. Don't run our waters because we want to drink our water and we want animals to eat. Hi. My name is Malia (?) and we live in New Stuyahok. We don't want the state to let the Pebble Mine come here at New Stu, because we could eat and because we cook all of our stuff and have water and just get big if we have water from the river. I am a student at New Stuyahok; I know you want the mine to go through because of the money. Dear State Representatives, Please don't ruin our water and our animals. We could swim in the water we could dive in the water. Please don't ruin our fish and our land. Even the moose and the animals. Please don't ruin our land. We want to go hunting for moose and so I can have some fish. I get emotional. These are from kids from five years ago and the reason that I bring this up is because the state is not listening to us. As a government to government relationship here, I ask that EPA exercise their authority to use their veto power so that we can put a halt to what is happening in our backyards. I will read one more here. Dear State, Why do you want to ruin our land in Alaska? If you ruin our land, we won't have any animals in Alaska. We will miss our fish and I will miss ice fishing and hunting. We won't be able to make animals. We live in New Stuyahok in Alaska. Why do you want to have the mine to come to Alaska and have money? I will miss picking berries in Alaska. These are testimonies from our kids back then.	NS		Father Wally Gust	
	The Pebble Partnership views the watershed assessment as rushed and inadequate.	NS		Sarah McCarr	
	It is not only that, as an elder said earlier, our Mulchatna caribou herd has moved away from the Pebble exploration because of the noise factor. It was already stated during the report that the cause of the herd moving away was because of the noise.	NS		Peter Christopher	

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	COMMENT	LOC	#	Commenter	Response
	I used to see all kinds of fish. Rainbows, sockeyes, any kind of fish because I have the cabin, way up the Mulchatna below Luki's cabin. I used to see all kind of game. Any kind ofanimal. Now they are getting lesser and less. Hardly any, maybe come from after that big quake. It's really changed. Before that earthquake there used to be lots. Then we start watching before. If the mine goes through, everything is going to be gone. I used to work with Pebble looking for oil. I used to work down the coast looking for oil. They use water from the lakes. They do the same thing with these mines they will use even more. Pebble will use lots of water. It is no good. If it is bad. We have lots of little creeks up there.	NS		Gregory Chunak	
	The wide variety of fishes we have here, reds, kings, dogs, chums, whatever, and trout, grayling, pike, white fish, trout, chums, and all the other animals the wolves foxes and bears and everything that sustain off that. This watershed feeds other nutrients into and other nutrients like berries too. If the Cyanide chemicals, sulfuric acid, whatever they use to strip all that, gets into our environment it's going to kill everything off. So, It's not going to be very economically positive for us, it's going to be Environmentally damaging in severe ways, if there is a natural disaster, this is the last and largest fishery that's left that's not contaminated and other kinds of things. So, I am not looking forward to the Pebble Mine, at all.	NS		Ryan Brennan	