

## Issues Tracking Table - Tulsequah Chief Barge Transportation System – Project Certificate Amendment Application

ISSUE NUMBER	AUTHOR OF COMMENT	ISSUE RAISED BY FIRST NATIONS	REDFERN RESPONSE	APPLICABLE REGULATORY PROCESS
1	Taku River Tlingit First Nation (1)	Missing information on TRTFN consultation and feedback on wildlife concerns	A meeting regarding wildlife issues and the proposed ACB transportation option was held with the TRTFN on June 13, 2007. A number of issues were identified on the operation of the ACB and potential effects on moose, wolf, grizzly and black bears and waterfowl. These issues were incorporated into the review of potential effects of the ACB transportation system.	BCEA Amendment
2	Taku River Tlingit First Nation (1)	Additional information is needed on weather: - specific limitations of data - discussion on implications of climate change	Weather station at Canyon Island is volunteer station that was operated from 1938-1941 and re-instated 2003. No wind data is recorded. Annex Creek station has only one year of data. Any discussion of implications of climate change over 10-year mine life would be extremely weak in their predictive certainty. Operations will be adjusted to short-term variability anyway, and potential effects of those adjustments will be discussed and authorized by regulatory agencies prior to any operational change, if that change is outside of any permit parameters.	BCEA Amendment
3	Taku River Tlingit First Nation (1)	Additional information is needed on marine mammal use of the barge route	Section 3.3.3 <i>Marine Mammals</i> , Vol. 2, discusses marine mammal species found in the Taku Inlet, Alaska. In the Taku Inlet area, the barge will be just one of many marine vessels in these waters and the additional marine traffic should not have any significant effect on marine mammals. However, there is not a lot of marine mammal data available for the Taku River, in Canada. Any additional information that the Taku River Tlingit can provide would be very useful and we would be happy to include it in our assessment.	N/A
4	Taku River Tlingit First Nation (1)	Marine mammal data sources are too old	Marine mammals are primarily a concern for the permitting process in the State of Alaska This comment does not clearly define what the author considers too old. Information sources consulted for Section 3.3.3, <i>Marine Mammals</i> , Vol. 2, included a 2006 report issued by the US National Oceanic and Atmospheric Administration along with: -Distribution of Steller sea lions ( <i>eumatopias jubatus</i> ) in relation to spring-spawning fish in southeast Alaska; Womble, J., M. Willson, M. Sigler, B. Kelly and G. VanBlaricom, 2005 -Steller Sea Lion Count Database 1992-94, 1996- from the National Marine Mammal Laboratory (NOAA) - Report by University of Alaska researcher Beth Mathews on the distribution and ecology of marine mammals in southeastern Alaska, 1996 -Alaska Department of Fish & Game, Wildlife Notebook series on marine mammals	N/A
5	Taku River Tlingit First Nation (1)	Additional sources of information on marine mammals should be included, such as Alaska Department of Fish and Game, First Nations, and other users	Marine mammals are primarily a concern for the permitting process in the State of Alaska. Alaska Department of Fish & Game databases and on-line literature were searched extensively for marine mammal information. We found indication that there was GIS-based marine mammal information for southeast Alaska but we were unable to track down a representative of the Alaska Department of Fish & Game that could provide the information to us. If TRTFN has a contact in the Alaska Department of Fish & Game for this information we would be pleased to be given access to it.	N/A
6	Taku River Tlingit First Nation (1)	Additional information to support conclusion for 'unlikely' occurrence of Pinks in mainstem; TRTFN has conflicting information	This comment, provided in Table 3-7, <i>Summary of Pacific Salmon Population in the Taku River</i> , Vol. 2 relates to Pinks using the mainstem of the Taku River for spawning. Typical pink salmon behaviour would suggest that it would be unlikely that they would spawn in the mainstem of a river like the Taku. This comment was in part generated from the information provided in the reference from TRTFN (2003, provided in Vol. 2). This report suggests that the majority of pink salmon spawning takes place further up the Taku watershed.	BCEA Amendment

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			Section 4.4.4.1 & 4.4.4.2, <i>Effects on Mainstem Spawning and Rearing and Migrating Adults and Juveniles</i> , Vol. 2, discuss potential effects of the air cushion barge with no reference to unlikely occurrence of pinks in Taku River mainstem.	
7	Taku River Tlingit First Nation (1)	Additional information is needed in both the baseline and impact assessment sections for terrestrial resources	Additional information on wildlife baseline information has been provided in a report, <i>Tulsequah Chief Mine ACB Transportation System - Supplemental Wildlife Information and 2007 Survey Results</i> . This report was provided to the TRTFN in mid-October 2007. A detailed assessment on the potential effects of the ACB transportation system and the proposed monitoring and mitigation measures to reduce those effects is provided in <i>Tulsequah Chief Mine ACB Transportation System - Detailed Wildlife Effects Assessments and Mitigation Measures</i> available mid-January 2008.	BCEA Amendment
8	Taku River Tlingit First Nation (1)	Additional information is needed on subsistence use of the river, which will be provided by TRTFN.	The TRTFN is undertaking a Traditional Land Use Impact Study that will document subsistence activities on the river.	BCEA Amendment
9	Taku River Tlingit First Nation (1)	Additional description of channelization effects is needed.	Information on channelization is provided in Section 5.6.1.1, <i>Channelization</i> , Vol. 2. Here, channelization is described as the straightening and/or ceasing a rivers ability to migrate laterally (i.e., erode banks). These effects can have considerable impact on the hydraulic characteristics of a watercourse and associated fish habitat. By following the thalweg, there will be minimal disturbance to the river channel itself.	BCEA Amendment
10	Taku River Tlingit First Nation (1)	Sediment management plan requires identification of areas vulnerable to erosion as well as monitoring methodology.	The outline of the Environmental Management Plans, including the Sediment and Erosion Control Plan, are provided in the environmental assessment, in Appendix A, <i>Environmental Management Plan Outline</i> , Vol. 2. General management measures are provided in that document. These management plans will be further developed during the field trials that are part of the commissioning, prior to routine operation, and will focus on measures to minimize the effects on fish and fish habitat.	BCEA Amendment
11	Taku River Tlingit First Nation (1)	Additional information is needed on method used to determine impact on fish entrainment is 'minimal'	The conclusion that this effect would be minimal is based on the circumstance under which the effect would occur, and limited spatial extent of such an occurrence. . The possible entrainment of juvenile fish into the air wash of the air cushion barge would only occur in shallow waters when the barge is entering or leaving the water. In Canada, this is limited to the barge landing area. This area will be monitored when operations begin to confirm the predicted effects and to modify operations if necessary to limit effects to juvenile fishes after consulting with Fisheries and Oceans Canada. In relation to the total length of shoreline along the barge route, the barge landing site represents a very small amount of the total habitat where juveniles are found along the Taku River. It is likely that the disturbance created by the approaching barge would cause the fish to temporarily move out the immediate vicinity of the approaching barge, thereby avoiding injury. Given the limited area that is potentially affected in this manner, the disturbance is temporary, and the likelihood that juveniles will avoid the approaching vessel due to disturbance, the effect was considered to be minimal.	BCEA Amendment
12	Taku River Tlingit First Nation (1)	Additional information on wildlife baseline information to understand existing vulnerabilities and to better characterize potential impacts	Additional information on wildlife baseline information has been provided in a report, <i>Tulsequah Chief Mine ACB Transportation System - Supplemental Wildlife Information and 2007 Survey Results</i> . This report was available to the TRTFN in mid-October 2007.	BCEA Amendment

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13	Taku River Tlingit First Nation (1)	Additional information on method of finding no measurable impact to the Canadian commercial fishery is needed	Commercial fishers were interviewed in July 2007 to identify concerns and document use (location, methods, timing, number of participants). Interference with fishing activities is expected to be very limited, as described in Volume 2, Section 4.6.1. The section of river that is actively fished will be disrupted for approximately ten minutes as ACB transits the area twice per day, on average. The Transportation Communication Plan will be developed to ensure that commercial fishers on the river are notified in advance of the barge schedule, and any anticipated changes to that schedule.	BCEA Amendment
14	Douglas Indian Association	What are the potential impacts to current and historic native land use sites along the proposed barge route including the Tulsequah River, Taku River, Taku Inlet, Gastineau Channel and Stephens Passage.	There are no predicted impacts to native land use sites in Taku Inlet, Gastineau Channel or Stephens Passage since these bodies of water are large and the barge activity is not significant in comparison to natural forces or existing marine and terrestrial activity. To ensure any potential impacts are identified in the Tulsequah River, or Taku River the company has supported a Traditional Land Use Study that is being compiled by the Taku River Tlingit First Nation. The scope of that review will include the Tulsequah River and Taku River in Canada. The company is in contact with SEALASKA, the Southeast Alaska Native Corporation who steward much of the First Nations historic information for the Taku River corridor.	BCEA Amendment
15	Douglas Indian Association	How will a bond amount be determined regarding the barge access alternative in case hazardous materials spill or other unforeseen accident causing irrevocable damage to the natural resources of the Taku River Watershed.	The Alaskan permitting process allows the State of Alaska to require a bond for spill response be secured. This is associated with the general land use permit the company has applied for in Alaska. The company has hired a third party contactor to determine and document the appropriate bond amount in consideration of the materials to be handled and any difficulties that different seasons may pose in undertaking a response. In Canada the company is expected to prepare a spill prevention and response plan and to have sufficient resources in order to initiate the plan should an incident occur. It is difficult to speculate on any compensatory matters.	BCEA Amendment and Alaskan Permitting
16	Douglas Indian Association	What are the potential impacts to the fish and wildlife resources of the Taku River watershed resulting from the proposed barge access alternative including barge landing sites?	The issues of fish and wildlife impacts in Canada have been addressed in Volume 2, Section 4.4 (aquatic resources) and Section 4.5 (terrestrial resources). This assessment includes the barge landing site at Big Bull Slough near the confluence with the Tulsequah River.	BCEA Amendment
17	Douglas Indian Association	What are the potential impacts of the proposed barge access alternative, including barge landing sites, on threatened and endangered species inhabiting Taku Inlet, Gastineau Channel and Stephens Passage?	The areas mentioned are outside of both the British Columbian and Alaskan permitting parameters. The information and questions provided by the Douglas Indian Association for these marine areas are valid and the company appreciates their concern for these important species. All information provided is taken under advisement	N/A
18	Douglas Indian Association	What are the time frames of the design, building and field testing of the proposed barge and its tow vehicle?	The design of both the amphitrac and ACB has been completed and construction is underway on both vessels. The ACB is being constructed near Portland, Oregon and the amphitrac is being constructed in Scotland, United Kingdom. Both vessels should be ready for field testing by late February or March 2008. The company is sharing its commissioning tests with the State of Alaska to ensure that at the very least operational criteria such as pressure and minimal impacts asserted in the operational plan are complied with prior to any operation on the Taku River. Third Party consultants have been contracted to provide expertise to the company to ensure the sea-worthiness of the vessels prior to acceptance from the manufacturer. The American Bureau of	BCEA Amendment

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			Shipping or other similar party will certify the vessels for their type of use. Neither vessel is required to undergo inspection by the US Coast Guard for the use intended.	
19	Douglas Indian Association	What is the status of the existing cleanup order for the Tulsequah Chief Mine?	The company installed an interim passive water treatment facility during 2005. Development of the mine has begun and an initial stage of development is the diversion, capture, and active treatment of water. Full containment of all historic waste rock, and full treatment of all water from the mine site is intended to be in place by December 2008. The development of these works is reviewed and permitted by primarily the Ministry of Energy, Mines, and Petroleum Resources, Ministry of Environment, and Fisheries and Oceans Canada.	N/A
20	Douglas Indian Association	What is the status of the testing of Shazah Creek valley alluvial fan as described in the PAC section 5(3)?	That testing was completed and results were accepted as complete by provincial agencies. We encourage the BCEAO to ensure this information is available from the E-PIC website.	N/A

**Respondents:**

1. Susan M. Carlick. Taku River Tlingit First Nation Land and Resources. October 10, 2007. Taku River Tlingit First Nation comments regarding Redfern's application for Environmental Assessment of their revised access proposal to reopen the Tulsequah Chief Mine Project.
2. Frank Miyasato, President. Douglas Indian Association. May 1, 2007. Douglas Indian Association comments regarding Redfern's application for Environmental Assessment of their revised access proposal to reopen the Tulsequah Chief Mine Project.

Comments attached.