DFO File # NU-09-0037

#	DFO Comment:	Stantec Response:
1	Section 3.4.3 of the December 2010 Final Design Report indicates: "The intake type proposed is a screened intake 'can' connected to the flexible intake line. The 'can' is constructed of Stainless Steel, with openings in the wire mesh of 0.1 inch (2.5 cm). It is capable of flowing up to 770 USGPM, the anticipated flow rate of the 250 mm pipeline." This information does not appear to adhere to the Fisheries and Oceans Freshwater Intake End of Pipe Guide which can be found: http://www.dfo-mpo.gc.ca/library/223669.pdf The fish screen criteria for open screen area and screen mesh size is typically 2.54mm, not 2.5cm. DFO would like to confirm whether or not the final intake design will adhere to the DFO Freshwater Intake Guide	The final intake construction does adhere to the DFO Freshwater Intake Guide. A #7 Mesh Wire Cloth with 2.54mm openings is used. The 2.54cm openings was a error.
2	Section 3.5 of the December 2010 Report - Pipeline Discharge – what is the purpose of the proposed outfall? How is the concrete pad proposed to be constructed (poured in place, or moved to site). What is the velocity of discharge exiting this outfall and the dimensions of the outfall energy dissipation pad? Has any information on fish and fish habitat at the outfall location been gathered?	The outfall splash pad is to reduce erosion concerns with the discharge of the water line. The concrete pad is constructed offsite and moved in to place. Specifications including dimensions are shown in the Issued for construction drawings. Fish and fish habitat information have not been studied at the discharge location.
3	Section 3.6 - The pump is proposed to be situated next to Lower Landing Lake. Has the Proponent considered any spill containment/mitigation to prevent the diesel from entering the Lake?	Equipment is proposed to be contained within a Seacan, as shown on the drawings. Additionally, the pump and equipment in the seacan are located a significant distance from the lake and river as shown in the drawings. Community personnel will be responsible to monitor the equipment during use and will have access to spill pads and response equipment if necessary.
4	Has an assessment of the current impact of water withdrawal on fish and fish habitat from Nipissar Lake taken place	The 2009 1310 Rankin Inlet Water Supply Study Final Report April 20, 2010 includes a Nipissar Lake Volume Study and Environmental Variable Study in Appendix E. It does not include a specific study on fish and fish habitat's. The river which water is being withdrawn from (Chars River) flows directly to Hudson Bay. The withdraw rate is 10% of the flow rate of Chars River.
5	Was an evaluation of the fish and fish habitat in the river in which the intake is proposed to be located in, and water bodies upstream and downstream been conducted?	The 2009 1310 Rankin Inlet Water Supply Study Final Report April 20, 2010 includes a Nipissar Lake Volume Study and Environmental Variable Study in Appendix E. It does not include a specific study on fish and fish habitat's. The river which water is being withdrawn from (Chars River) flows directly to Hudson Bay. The withdraw rate is 10% of the flow rate of Chars River and impacts to upstream water bodies is not expected.
6	Does the Proponent have information to conclude that fish and fish habitat will or will not be affected by the proposed new intake in all seasons (spring, summer, fall, winter)	The intake system only operates for two - three months each summer. Due to the low flow rate and volume of water use it is not expected to have significant negative impacts on fish and fish habitats.
7	Currently the Proponent proposes only summer withdrawal. Has the Proponent considered impacts to fish and fish habitat during low flow periods, and will there be sufficient flow for fish passage during the period of water withdrawal upstream and downstream of the intake?	The maximum withdrawal rate is less then 10% of the river flow rate and therefore negative impact to fish and fish habitat is not expected during the operations of the system.
8	Does the Proponent have a preliminary design of the proposed intake that can be provided?	Issued for Construction drawings have been submitted to the NWB as part of this review.
9	Will dredging be required to facilitate construction and placement of the intake? And if so, how often will maintenar	No dredging is proposed or expected for the system.
10	Will the proposed pipeline be required to cross any other watercourses/water bodies?	No water crossings are to be crossed for the overland pipeline.
11	Has any consultation taken place with respect to potential impact to fishing in the River in which the intake is proposed to be located in, and if so, what comments have been received, and were they considered in the proposal?	Community and government consultations took place during the preliminary stages of the project design. No issues or concerns were raised during the consultations.
12	As there is a fish habitat compensation project which is currently being monitored and was constructed by Agnico-Eagle for the Meliadine Mine Project, has consideration been given towards any potential impact to the Agnico compensation project as a result of potential lower water levels resulting from the intake?	No, however the low flow rate and volume of withdrawn water is not expected to cause significant negative affects on upstream water bodies.
13	Was an alternative assessment completed for the proposed new water source?	Yes several options were discussed during the preliminary stages of the project with the overland replenishment being the best option.
14	Was an evaluation of fish and fish habitat in Char River and water bodies upstream and downstream conducted?	No fish or fish habitat studies were conducted.
15	Has the Proponent proposed any mitigation measures to protection fish and fish habitat from the intake including construction and design of the intake, velocity, screen size and type, location, etc.?	Mitigation measures were taken during the design of the pipeline. The screen was designed as per DFO standards for min. opening size. The surface area of the intake was developed such that maximum velocity did not exceed 0.16ft/sec. The intake is not permanent and is to be removed each fall.

#	AANDC Comment:	Stantec Response:
1	Describe natural fluctuations, variability and sources of variability in flow rates in Char River. Include seasonal fluctuations. Theoretical velocity and flow rates had previously been determined based on Manning's Formula for Uniform Flow. AANDC suggests the proponent consider installing flow meters and/or a hydrometric station to collect data within the river to accurately capture on site characteristics and flow rates.	We will not be able to install flow meters or a hydrometric station to collect data this year and argue that this level of effort is not warranted for the proposed project.
2	Describe existing and/or proposed protected areas, special management areas and conservation areas within the watershed or downstream environment.	We are not aware of existing or proposed areas defined as per the AANDC comment.
3	Provide additional information on water chemistry within Lower Landing Lake and Char River and potential impacts water withdrawals will have on the source and discharge water bodies (i.e. Nipissar Lake).	We will not be able to provide this information and argue that this level of effort is not warranted for the proposed project.
4	Please include assessment of alternative water bodies investigated and rationale for choosing Lower Landing Lake.	Lower Landing Lake was the requested withdrawal lake for economical and supply quantity reasons.
5	AANDC recommends that the Proponent provide high resolution maps/images of the suggested pipeline path and intake/discharge locations. Reference to the Hamlet of Rankin and other reference sites should also be included (i.e. Commissioner's land parcels, Hudson's Bay).	The Issued for Construction drawings include maps and images of the pipeline path - no additional images are available for distribution.
6	AANDC recommends additional information be provided on spill contingency planning and mitigation measures with respect to the pumping station and generators.	Equipment is proposed to be contained within a Seacan, as shown on the drawings. Additionally, the pump and equipment in the seacan are located a significant distance from the lake and river as shown in the drawings. Community personnel will be responsible to monitor the equipment during use and will have access to spill pads and response equipment if necessary.