IR #	Comment / Issue Description / Suggested Change	Proponent Response
1	Concerns regarding potential for increased vessel activity in Koojesse Inlet; recommend the Proponent discuss any considerations made during project design and proposed operations to address possible increases to local vessel activity as a result of the project and provide additional detail on any residual or significant adverse effects that may result from the project.	The Government of Nunavut's Department of Economic Development and Transportation (EDT) is in the initial stage of planning for the operations of the Iqaluit small craft harbour facilities. The objective of the project is to improve access and safety for existing users. It is not anticipated that these improvements would result in increased boat traffic. With the planned improvements, generally, the same limitations will still exist, with boat launching and retrieval largely confined to high tide at the Municipal Breakwater and the Causeway being relatively far removed from the community. Given that Iqaluit is some 300 km from the main transit route to the Arctic, it is unlikely that vessels will deviate because there are upgraded small craft harbour facilities at Iqaluit. Refueling facilities are not currently available at the Small Craft Harbour (SCH) or the Causeway and there is no plan at this time to provide small craft or ship refueling capability to the SCH or the Causeway. It is acknowledged that the community will continue to grow, which may result in increased boaters, as will cruise and adventurer/pleasure craft traffic to Iqaluit, however, the improvements to the SCH (and causeway) are unlikely to be the driver for increased traffic. The SCH improvements will result in decreased vehicle congestion, with the Municipal Breakwater providing parking, staging lanes, and a wider launching ramp. The causeway will further alleviate congestion and will provide additional vessel launching options. Even with an increase in shipping activity, the project will improve access and navigation. The project will go through the *Navigation Protection Act* process with Transport Canada but as indicated in the PSIR no significant impact is expected. There were no concerns raised in consultation. Any additional cruise ship traffic using the SCH would be subject to its own permitting processes.

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2	Concerns regarding impacts to the marine environment as a result of onshore erosion, and lack of sediment control, and water management during construction and lack of clarity on the monitoring programs to be implemented; recommend the Proponent clarify mitigation measures to address these potential impacts and provide additional detail on its marine monitoring program.	There is the potential for sediment to enter the water from onshore construction activities involving surface disturbance that could reduce water quality although the construction activity at the shoreline is limited for this project. At the causeway, the area of the proposed rock cut, there is a predominance of bedrock, thus the risk of shoreline erosion is low but it is acknowledged within the PSIR that it will be necessary to manage run-off. At the Small Craft Harbour (SCH), the potential for sediment and erosion control (relative to the marine environment) will specifically be related to the construction of the staging lane. The sediment in the vicinity of the SCH is largely sand, and construction at the SCH will be conducted at low tide, reducing the risk of shoreline erosion. As per the Construction Environmental Management Plan (CEMP), the Contractor will be required to apply applicable sediment and erosion control best management practices (BMPs) to meet water quality criteria. Sediment and Erosion Control and water management measures during construction are provided in Section 3.5 of the CEMP. Mitigation measures are as follows: ▪ Run-off will be visually monitored and if there is evidence of flow reaching the marine environment, perimeter controls shall be applied to act as a barrier, preventing sediment or contaminants from reaching the beach or the ocean (i.e. sediment/silt fence). ▪ If visual monitoring identifies sediment run-off, turbidity will be measured and compared to the Canadian Council of Ministers of the Environment (CCME) guidelines for the protection of aquatic life. ▪ Material shall be stockpiled in such a way that debris/sediments will not enter the marine environment. Material will not be stockpiled on the ice. ▪ Stockpiling and storage of material must occur in upland designated areas and controlled in a way that debris and sediment will not enter the marine environment. As per the PSIR and CEMP, marine monitoring is planned and will cover precipitation events and the tidal cycle. Monitoring measures specific to monitoring of water quality and effects to fish and marine mammals have been provided in the CEMP. Additional measures may be through the *Fisheries Act* process. As per the CEMP and at a minimum the following monitoring is committed to, in relation to erosion and sediment control: ▪ Visual monitoring during all in-water activities and activities that may result in soil/sediment entering the marine environment. ▪ Minimum daily monitoring of turbidity/total suspended solids (TSS) in marine waters surrounding construction using handheld monitor with minimum weekly laboratory analysis to verify results. ▪ Comparison against CCME guidelines for the protection of aquatic life and background conditions to ensure mitigation is effective.

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3	Concerns regarding potential for acid rock drainage (ARD) in the cut rock on site; recommend the Proponent clarify what contingencies would be used should ARD be identified.	To assess the acid rock drainage (ARD) potential, a field survey was undertaken by a qualified geologist to inspect the site at the proposed cut area at the causeway. During this survey, representative samples were collected from both the surface and the exposed blasted rock face. Neither sulphide minerals, nor obvious signs of existing acid generation, were observed. Minimal weathering (i.e. rock degradation) was observed at the site to be excavated and in the existing rock quarry. The collected samples were considered representative of fresh, unweathered rock. Field observations and the general geology of the proposed rock excavation site did not indicate sufficient spatial variability of rock composition to foresee or predict a different mineral composition in the deeper zone to be excavated during construction, compared to the shallow zone sampled. A detailed laboratory geochemical testing program on the collected samples was undertaken, including acid-base accounting, ultra-trace metal analysis, leach testing (e.g., shake flask extraction) and x-ray diffraction to assess the potential for ARD related to rock material from the rock areas to be excavated. Analyses of the test results indicate that the predicted acid rock drainage/metal leaching (ARD/ML) potential is low: the neutralization potential ratio was greater than two (2) for all the samples, no metals of potential concern were identified in the leach test and the rock sampled did not contain sulphide minerals to potentially generate ARD, because they consisted of geochemically inert aluminosilicates (refer to Iqaluit Marine Infrastructure - Terrestrial and Human Environmental Baseline Report). Despite the low likelihood of encountering ARD susceptible rock on this project, the rock cut will be monitored, as it progresses, and if rocks suspected of containing elevated sulphide mineral to potentially generate ARD (e.g. as vein or fracture fillings) are identified, those rock materials will be segregated and field screened for ARD. Field screening would involve examination for the presence of sulphides using a magnifying glass, as well as conducting acid tests to determine the presence of carbonates. If the field tests confirm the presence of elevated sulphide mineral content, further samples of the suspect material will be collected and sent to the laboratory for detailed testing. In the meantime, the suspect material will not be used for construction and will be stockpiled and isolated from the atmosphere (e.g. covered with a High Density Polyethylene [HDPP]) and contact water, if any, will be captured, stored and later treated, if needed. If laboratory testing confirms elevated potential for ARD, the material will be permanently disposed of in a suitably constructed stockpile in line with current ARD management guidelines and best practices. Final rock cut surfaces that are to remain after construction is completed will be inspected for signs of potential ARD and subjected to further testing if necessary. If there are seams with ARD generating potential that remain exposed in the cut face, they may be over excavated and added to the ARD management stockpile. If needed, a series diversions and collection ditches will be designed and built to divert clean water from areas containing potential acid generating rock, and collect and convey contact water to a collection pond for monitoring and treatment. The ditches and collection pond will be sized and built as per regulatory requirements.

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4	Reference to emergency response plan in application, but no detail provided on what types of emergencies would be considered during response planning for either construction or operations which leads to uncertainties in understanding possible impacts of the project; recommend the Proponent provide an overview of the types of emergencies that may arise from the project and the types of mitigation or plans that may be employed to address the impacts.	Human health and safety and environmental protection are paramount considerations for the Government of Nunavut during construction of the project. An Emergency Response Plan (ERP) will be prepared for the project by the Contractor that outlines the protection of personnel, the public, and the environment in the event of an emergency scenario during construction. The scope of the Construction ERP will encompass a range of incidents during the construction phase of the project that may require the initiation of an Emergency Medical or Environmental Response. The ERP will also consider the possibility that more than one type of response may be required for any one incident. Possible emergency situations at the Small Craft Harbour (SCH) project site during construction include but are not limited to: ▪ Fire/explosion ▪ Vehicle and mobile equipment incidents ▪ Marine vessel/equipment incidents ▪ Hydrocarbon spill ▪ Security breach ▪ Wildlife encounters ▪ Natural disasters and severe weather events ▪ Major first aid/medical emergencies Specific emergency response procedures are an important part of the overall emergency management system. Response procedures will be developed for the above scenarios and will be clear, simple, practical and achievable. They will describe the steps to be undertaken, the precautions, the protective clothing and equipment to be used, any special conditions, and the responsibilities and duties of people undertaking these procedures. The ERP must be prepared by the contractor(s) who will be responsible for construction. The ERP at a minimum will include: ▪ Emergency response flow chart and communication protocols ▪ Emergency alarm signal ▪ Designated safe assembly areas ▪ Posted emergency phone numbers ▪ Directions and contact information for the health clinic ▪ A continuously available telephone ▪ Site plan with locations of fire response equipment, first aid equipment, spill kits, muster stations etc.

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		▪ Specific emergency response procedures and responsibility for first response to a range of identified emergency scenarios ▪ Evacuation and headcount procedure ▪ Site first aid and medical services requirements ▪ Training requirements for employees and response team members, including emergency drills Section 3.2.2 of the CEMP provides further information on the contents of the construction ERP to be developed by the contractor. The Department of Economic Development and Transportation (EDT) within the Government of Nunavut is responsible for the development of the ERP for the Operations phase of the project. There is a clear commitment from EDT to prepare an Operations Environment Management Plan (OEMP), Health and Safety plans for operations and the ERP for operations. Emergency Response Plans for existing operations and other Government of Nunavut operated facilities in Iqaluit will be used as a basis. The possible emergency situations for operations will likely mirror those provided above for construction.
5	Concerns regarding public access (including local hunters) to the area during construction; recommend the Proponent outline plans to manage and/or restrict traffic during construction and how local usage of the area was addressed.	As presented in Section 5.3.3 of the PSIR and confirmed during consultation in the community, the location of harvesting areas in the vicinity of the Small Craft Harbour (SCH) project site and access to the ice and water were considered in the assessment of potential impacts. Feedback through consultation, from the Hunters and Trappers Association (HTA) and Boaters' Working Group (BWG) was that construction of the project is not anticipated to impede access to harvesting areas. Effects to harvesting access will be mitigated by the construction of the causeway improvements occurring first (thus allowing access via the existing SCH), and secondarily at the SCH (thus allowing access via the causeway). Additionally, construction at the SCH is largely expected to occur at low tide, where high tide is required for launching boats. Construction activities and proposed timing will be made available to boaters. These mitigations are detailed in Section 5.3.3 of the PSIR.
6	Clarification required on the location of the three infrastructure projects (Deep Sea Port, Small Craft Harbour, and Airport Lighting Extension) proposed for Frobisher Bay; recommend the Proponent provide a comprehensive map illustrating the locations of all three projects.	Extensive consultation on the Small Craft Harbour (SCH) project with communities and specific interested parties such as the Boaters' Working Group (BWG), the Hunters and Trappers Association (HTA), the Qikiqtani Inuit Association (QIA) and other boat users in Iqaluit was conducted and summarized in Section 2.4 of the PSIR. This included focused discussions with the HTA and BWG regarding potential impacts to navigation on the construction and operation of the SCH project. A detailed log of all feedback received to date on navigation and the proponent's responses have been provided in the SCH consultation log. The proponent will continue to consult with Transport Canada and comply fully with the *Navigation Protection Act*. The proponent will also continue to consult with the community about navigation concerns and keep Transport Canada informed of the results of these consultations. A map showing all three projects (Figure 6.1) can be found in cumulative effects Section 6 of the PSIR. Please find a copy of the map attached.