



P.O. Box 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

ᓇᓇᕗᑦ ሀᓂᓇᓂ ንᓇᕗᑦ
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

July 22nd, 2005

Bryan Purdy
Municipal Planning Engineer
Department of Community and Government Services
Government of Nunavut

Subject: Revision to Supplementary Questionnaire for NWB4DIA

Bryan,

After a preliminary technical review of the Supplementary Questionnaire for NWB4DIA the Nunavut Water Board requests further clarity and detail. Please find listed below a group of comments to be included in the submission of a revised Supplementary Questionnaire.

Due to the unique nature of the project it is difficult to provide a generic supplemental questionnaire. As I had stressed, during our July 18th, 2005 phone conversation and subsequently in earlier conversations with you, that there is a need for the proponent to cater the *Supplemental Questionnaire for Municipalities* towards the specifics of the Dianne River Road project. I was under the belief that this was understood as you had assured that revisions to the listed concerns would be rectified. According to your submission on July 19th, 2005 these issues still remain outstanding.

a) Monitoring Program (Page 12 and Page 15)

Provide the necessary answers to questions (a) to (e) as indicated. In question (b) please answer with respect to the monitoring of waters in proximity to the trail project not in respect wastewater effluent and leachate. I had identified this in our phone conversation July 18th, 2005 yet in your July 19th submission there is still a lack of information provided to satisfy these requirements. There should be significant detail in describing how samples will be taken to the laboratory, detailed sampling methodology, and what monitoring will be completed for the waters affected by the ATV trail (The answer should provide sufficient detail in concluding what waters will be effected and how these waters will be affected). If detailed responses are provided and fulfill questionnaire requirements through the contracted engineering report by Jacques Whitford (JW) the Technical Advisor advises the Proponent to adequately reference where within the complimentary report the answer is provided.

b) Public Concerns (Page 13)

It has been expressed in conversations with the Proponent that the Hamlet and community of Rankin Inlet give full support to the project. The Technical Advisor recommends that the Proponent list what community advisement measures had been carried through (i.e. date and type of meeting) and responses and concerns both in support and not in support for the Dianne River Road Project.

b) Technical Information (Page 16)

As expressed on July 18th, 2005 via telephone with the Proponent, information must be provided in Items 1, 2, 5, and 6 of the Technical Information section. Also similar to the concerns addressed in Item b within this report, the Technical Advisor recommends that the Proponent list what community advisement measures with respect to Elders had been carried through (i.e. date and type of meeting) with respect to the collection of baseline data on main water bodies in the area (As indicated on the Supplementary Questionnaire).

c) Attachments (Page 18)

In accordance with the Nunavut Waters and Nunavut Surface Tribunal Act (NWNSRTA or Act) Section 48 (3), the Board may provide guidelines to the applicant respecting the information to be provided by the applicant in respect of any matter that the Board considers relevant, including the following:

- 1) The description of the use of waters, deposit of waste, or appurtenant undertaking;
 - i. Waterbody name and location (Lot and Conc., Municipality, Lat. and Long., local area of waterbody)
 - ii. Site photos, site map, air photo, topographical map
 - iii. General condition of channel (i.e. armored, slumping banks)
 - iv. Slope of banks
 - v. Channel gradient
 - vi. Vegetation (on banks, overhanging, in-stream, to be removed)
 - vii. Fish species at and near site

- viii. Use of impacted area as spawning, nursery, rearing, food supply or migration route
- ix. Expected flow rates during time of construction

2) The qualitative and quantitative effects of the use of waters or the deposit of waste on the drainage basin where the use is to be undertaken or the deposit is to be made, and the anticipated impact of the use of the use or deposit on other users;

- i. In-water work timing restrictions for cold or warm water fishery
- ii. Proposed start and completion date of channel realignment and in-water construction
- iii. Length of realigned channel (before and after)
- iv. Plan for abandoned channel
- v. Construction sequencing
- vi. Dimensions and cross sections of new channel
- vii. Machinery proposed
- viii. Final gradient and gradient control
- ix. In-stream structure
- x. Water flow conveyance measures
- xi. Fish transfer/Water conveyance around the construction site
- xii. Monitoring during construction
- xiii. Sediment and erosion control measures

As advised in previous communication, the above information tailors the site specifics of the Dianne River Road project to the conditions set similarity in *Attachments* section of the supplementary questionnaire for other Municipal undertakings. Now it is understood that some of the information listed above is contained within the contracted engineering study. The Proponent is advised to provide referencing of where the information to the above can be found in the application submission (JW contracted study) and or provide further information to compliment the JW report.

③ Hydrology of New Trail

As mentioned in our communication via telephone it is essential to provide the Technical Advisor, regulatory interveners, and the public sufficient detail with the proposed construction with respect to hydraulics of the site. The answer provided in Item 1 within this section should be expanded to give proper explanation of how flow and storage is expected to change. It is understood that culverts will be installed in streams but further elaboration such as how it will impact flow and how it will alter the flow observed in the current natural channel. Your engineering opinion should be scientifically communicable to other reviewer engineers and scientists so they may evaluate the proposed undertaking and evaluate impact.

As aforementioned in Item 2, the Proponent is advised to include proper referencing when citing the JW report.

As expressed in the telephone call July 18th, 2005, the Technical Advisor fundamentally disagrees with the answer provided in Item 3. It was to the understanding of the Technical Advisor that the Proponent was to rectify this answer. The Proponent had indicated that this would be changed yet in the submission there is no showing of such. The Proponent is once again advised to reevaluate the answer provided in Item 3 and provide the necessary descriptors in detailing stream bed and bank stability.

In Item 4, the Technical Advisor once again fundamentally disagrees with the answer provided. It is inevitable that a change in cross section will take place with a stream crossing or installation of culvert. The Technical Advisor advises once again in reevaluating the submitted answer and provide necessary descriptors and detail related to how the undertaking will change alter flow capacity of a channel crossing. Once again as stated in previous communication with the Proponent, engineering opinion should be scientifically communicable to other reviewer engineers and scientists so they may evaluate the proposed undertaking and evaluate impact.

④ Runoff Water and the Dianne River Road

The Technical Advisor would like further clarification on how run off from the crown of the Dianne River Road will run off into surrounding waterbodies will be dealt with. Further detailed information on the materials used in the trail (i.e. granular specifications) and properties of the geosynthetic used in wet areas should also be provided.

The NWB requires clarification and confirmation on the information within the above listed concerns. Once again I would like to reiterate the need for detail in the supplemental information and licence application. This will provide to allow interveners to make appropriate judgment with respect to intervener mandate.

Should you have any questions regarding the above please feel free to contact the undersigned at (867) 360-6338.

Yours truly,

Joe Murdock, B.Sc., M.Sc., MIT, CEPIT
Technical Advisor