Conformity Determination Report – GNWT, DoT (Highways) (For Discussion Only)

Applicant: GNWT, DOT, Highway Operations
Application #: S04L8-014
Project Name: Type B Water Licence, Construction & Maintenance of Mackenzie Valley & Colville Lake Winter Road (K'asho Got'ine District)

WORKSHOP NOTE: This application was chosen for its land use and location within the K'asho Got'ine District as a test case for the current drafting of the Sahtu Land Use Plan. The Sahtu Land Use Plan is not currently in effect and applications are not required to conform at this time. This application is 7 years old and was developed with the Preliminary Draft Plan and different regulatory expectations as a guide. It is therefore unlikely to conform to the current draft. Findings of non-conformity in this report are intended as discussion tools only to illustrate where changes in process may be needed post-plan approval. They are not intended to reflect the quality of the applications themselves.

Overall Questions/Discussion

- Unique features of this application:
  - Crosses many zones, including CZs
  - Discussion of transportation as a separate land use (CR #1)
  - Government is the proponent (exemption from part of CR #13)
  - Ongoing land use beyond the term of the licence being applied for
  - Test case for activities within FGH-CL Group Trapping Area
  - Key and necessary land use that is expected to proceed – interesting case for discussion of CR #4 (community engagement and TK) and others that didn't conform – Are the requirements reasonable?

Existing Use Exemption:

Yes. The GNWT has a 60 m wide right of way (easement?) for construction and maintenance of the winter road. This application is also related to existing land use permits S02E-001 (Mackenzie Valley Winter Road) and S00E-002 (Colville Lake Winter Road). It is exempt from any prohibitions in CR #1 (Zoning).

Overall Conformity Determination: Does Not Conform

- The activity as proposed does not conform to the following CRs:
  - CRs #2, 4, 6, 10, 20
- The activity as proposed conforms to the following CRs, subject to the further Implementation Requirements identified for each. Failure or inability to adhere to the

identified Implementation Requirements for each means the activity does not conform and cannot be authorized:
    - CRs #3, 7, 8, 11, 12, 13, 14
- The activity conforms as proposed to the following CRs:
    - CRs #1, 5, 9
- The following CRs are not applicable to this activity: CRs #15-19

Project Description:

DoT is proposing to construct and maintain the Mackenzie Valley Winter Road (MVWR) and the Colville Lake Winter Road through the K'asho Got'ine District within the Sahtu Settlement Area (SSA). The winter roads will be constructed and maintained along the existing winter road corridor in accordance with DoT snow and ice road standards to accommodate large truck traffic up to 64,000 kilograms with an approximate travel speed of 40 km/hour.

The winter road system has recently experienced a significant increase in heavy truck traffic serving the industrial and resource development companies operating within the SSA. Maintenance activities need to be increased to accommodate increased heavy traffic and public use of the winter road system in the SSA. Additional water is required to compensate for the heavier truck traffic and truckloads, to extend the operating season of the winter road system and to maintain a safe and effective winter road system for all users of the winter road system in the SSA.

The winter roads in the SSA are typically constructed by compacting and smoothing out a layer of snow to a minimum thickness of 10 centimeters, however, it must set for at least 24 hours before being open for public use. Water is used to reinforce and improve the snow roadbed structure. The water is extracted from watercourses crossed by the winter road and is applied to the roadbed at a rate of no more than 300 cubic metres of water per day.

Water will be extracted from sources using water trucks equipped with vacuum pumps with a flow-measuring device. The Department of Fisheries and Oceans (DFO) also has protocols that approve the use of 5% of the instantaneous flow quantity in watercourses at the time of extraction and 5% of the total volume of waterbodies per winter season. Before extracting water from a watercourse, an instantaneous flow measurement will be taken using a hand held measuring device to calculate the 5% instantaneous flow threshold.

Written documentation for flow rates, extraction/withdrawal rates, extraction dates, extraction volumes, pump types, ratings and specifications are to be provided for each water source used during the length of the project. The documentation records will be provided to both DFO and the SLWB.

A qualified technician will be hired to measure water velocities and volumes and to monitor water extraction rates and volumes. Daily extraction reports will be prepared for all water used for winter road construction and maintenance activities.

The typical operating season for the winter road is November 30th to March 31st and water extraction for the purposes of construction and maintenance of the winter road will occur over

this 122-day period. The water sources DFO approved for the construction and maintenance of the winter road in the K'asho Got'ine District are as follows: Hanna Creek, Donnelly River, Snafu River, Tsintu River, Mackenzie River (Fort Good Hope), Hare Indian River, Large Creek (Km's — 48, 70, 110), Tchaneta River, Lac Belot, Colville Lake, and Winter Road Lakes 4-6. Bathymetric surveys have been submitted for lakes 1-6 but stream surveys have not been completed. DoT will complete the necessary stream surveys prior to the 2005/2006 winter road season. Once completed, this information will be forwarded to DFO and the SLWB.

It is estimated that 8,900 cubic metres of water will be used for the Mackenzie Valley Winter Road from Km 1083 to Km 1172 (Fort Good Hope). The Colville Lake Winter Road stretches from Km 0 to Km 165 (Colville Lake) and will require 16,500 cubic metres of water. The total distance for this project is 254 Kms, which will result in a water requirement of 25,400 cubic metres. Water use per day is calculated to be 208 cubic metres.

DoT has requested to have a Water Licence be issued for 11 years, If DoT's proposal is accepted for an 11 year Water Licence the expiration of the Licence will occur on December 24, 2015.

CR #1 – Zoning

Zones Affected:

- Chick Lake CZ
- Nerehtene CZ
- Lac Belot CZ
- Norman Range SMZ
- Bluefish Creek to Tsintu River SMZ
- General Use Zone

Conformity Determination: Conforms (Exempt anyways)

Analysis:

- Transportation on its own is not a prohibited use in any zone

CR #2 – Protection of Special Values

Values to be protected:

- Entire area is within Fort Good Hope-Colville Lake Group Trapping Area
- Colville Lake Trail identified as a Heritage Site under "Places We Take Care Of" – recommended designation as a Territorial Historic Park and completion of oral history and archaeological research to document and protect extant heritage resources.

<u>Chick Lake CZ</u>

- Important for recreational and subsistence use – many cabins, archaeological and cultural sites
- Protect shoreline and help maintain current water quality levels
- Fish bearing lake, furbearer habitat, important waterfowl habitat

Nerehtene CZ

- Used year-round for cultural gatherings where camping, fishing and traditional Dene games and activities take place
- Located where the winter road crosses the Hare Indian River
- Important wildlife area for both moose and muskox, furbearer habitat, important fish and wildlife harvesting site
- Karst in vicinity

Lac Belot CZ

- Established to protect the shoreline, quality of water and fish, and allow traditional land and cultural uses of the lake to continue
- Slow recharge rate – water should only be withdrawn for domestic use
- Important area for traditional use – fish, wildlife and medicinal plant harvesting; lots of camps and cabins; burial and archaeological sites recorded along the shore,
- Important barren-ground caribou habitat, especially for Bluenose West Herd (concentrated here from October or November to May
- Important wildlife area for furbearers, especially marten
- Important duck breeding habitat

Norman Range SMZ

- Values to be protected are primarily derived from the many small critical sites (mostly Conservation Zones) within this SMZ – this SMZ acts as a buffer to enhance protection of the many smaller sites
- Important habitat for boreal woodland caribou, waterfowl, muskox, moose, furbearers
- Karst and springs in vicinity
- High concentration of cultural and recreation sites – cabins, tent frames, camps
- Archaeological sites
- Important fish and wildlife harvesting area

Bluefish Creek to Tsintu River SMZ

- Protect the creek and its shoreline which are important areas for recreational and subsistence use
- Protect the shoreline and maintain water quality
- Bluefish Creek connects the Mackenzie River to a number of small lakes where bluefish den and overwinter. The lakes at the western end of the creek are a source for bluefish populations.
- Good habitat and harvesting areas for moose, furbearers
- A few archaeological sites and outpost camps located along the creek

Conformity Determination: **Does Not Conform**

Criteria:

- Looking for identification of the values to be protected in the zone and specific sites related to them through community engagement and TK collection, and evidence of avoidance or appropriate mitigation measures to protect those values

- Looking for mapping/identification of sites with particular values and designations (e.g. IBP sites, archaeological sites, important wildlife areas, special harvesting areas, Heritage Sites, karst features, mineral licks, etc.) and special consideration given to those sites to protect them from harm

Description of Mitigation Measures:
- See descriptions provided under CRs #4, 7, 8, 10, 12

Analysis:
- Applies to both SMZs and CZs crossed by the winter road
- No consideration of specific zone values (weren't identified at time of application though)
- Good identification of site-specific values through TK project
- No particular consideration given to these areas as SMZs and CZs
- No evidence of discussion of specific mitigation measures to minimize impacts in these areas
- Community suggestions for mitigating impacts (using different water sources) do not appear to have been incorporated

Questions/Discussion:
- Only one of these zones existed when the application was submitted, and the detailed analysis of values wasn't available
- For future applications, we would expect to see efforts to avoid these zones, especially the CZs, as sources for water withdrawal and other intensive aspects of operations to the extent possible. It is understood that the road would still be constructed across these zones.
- Where it is necessary to withdraw water or carry out other intensive activities, then particular focus should be given to these aspects in discussions with communities to find ways to minimize impacts and that should be demonstrated in the application.

Implementation Requirements:
- Application would have to be resubmitted with consideration of these zones

CR #3 – Project-Specific Monitoring

Values to be protected:
- As described in CR #2 above

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:
- "sufficient to monitor effectiveness of proposed mitigation measures in protecting zone values and impacts to those values"
- Expect to see evidence of a monitoring program in place to ensure that the activity is not affecting the key values within SMZ
- Requires assessment of potential for impact. Where little to no impact is anticipated, monitoring may also be minimal.

Description of Impacts & Mitigation:

- Only discussion of monitoring is on water withdrawal volumes, which will be metered, logged and reported to DFO and the SLWB

Analysis:

- Based on values identified above and the key impacts anticipated by the project within the SMZs and CZs, would want to see monitoring within the SMZs and CZs of water levels and impacts to furbearers and fish in water sources - No discussion of any such monitoring programs but could be handled through conditions
- Other potential impacts are very limited within these zones (more in the GUZ) so broader monitoring not warranted

Questions/Discussion: None

Implementation Requirements:

- SLWB to require monitoring of water levels, impacts to furbearers and fish from water withdrawal sources within the 3 CZs and 2 SMZs as a condition of authorization

CR #4 – Community Engagement and Traditional Knowledge

Conformity Determination: **Does Not Conform**

Criteria:

- Looking for evidence of consultations with affected communities (land corps, band, RRC, public) on activities, concerns and TK
- In the future, will be looking for specific discussion on CRs that rely on community input to be fulfilled
- Looking for demonstration of how this information was considered and used in project design

Data from Application:

- Colville Lake consultation held on Sept 28/04 to discuss water extraction sources
    - Concern that big lakes were being used, since that is where the fish are
    - Community requested that Beaver Lake, Tchaneta River and Lac Belot not be used for water withdrawal, as these are significant use areas for the community and water levels are a concern in these areas. Nearby suggestions were provided as alternatives.
    - Requested that a monitor be hired to watch for spills and monitor water withdrawal rates and report issues to the community.
- FGH consultation held on Sept 28/04
    - Last year's extraction relied on one main water source, which dropped the water level there to an extreme low (Gibson's Gap). The withdrawal limits for the watercourse must not be exceeded. (Response – agreed, rotating water sources this year).
    - Suggest having an alternate water source for each water extraction site chosen.

    - Suggest taking Elders along the winter road to show good sources that avoid beavers and fish and identify best access routes.
    - Must have a monitor for all phases of work.
    - Statement that TEK collection should be handled internally, not by an outside contractor.
    - No specific concerns identified for water sources presented.
- Norman Wells consultation held on Sept 28/04
    - Stated that many of the streams identified as water sources between NW and FGH are mostly or completely dry this year.
- Tulita consultation held on Sept 29/04
    - Suggestion to use the Mackenzie River as a key water source given extremely low water levels everywhere else. The bank is very steep in places so careful planning and use of existing cutlines would be needed.
    - Suggestion to use Elders to help select water sources.
- TK Study conducted by GeoNorth
    - All water levels are shallow this year; all the creeks are drying out.
    - Proposed water extraction sources all fall within prime beaver habitat.
    - People were in favour of the winter road as long as water extraction sources were taken from sources listed in Recommendations section.
    - The mouths of the creeks are a source of grayling so need to ensure the water is kept clean and free of garbage.
    - Many of the water extraction sources selected by DoT along the Colville Lake Winter Road are deemed unsuitable and follow-up with the Chief is required. Local involvement and monitoring needs to occur when extracting water from the sites. The following recommendations were made:
        - Hare Indian River: Currently doesn't freeze all the way. If water is pumped out, it could freeze to the bottom. Will need to monitor flow.
        - Large Creek (km 48): Very shallow – do not use
        - Large Creek (km 70): Do not use, if water is taken out it will dry up
        - Tchaneta River: Do not use, use the lake instead. The river has been pumped dry the last two years for winter road building, the ice dropped and beaver were found dead.
        - Large Creek (km 110): Need to thicken the ice on this creek because the source is a muskeg lake.
        - Lac Belot (km 134 and 145): Do not use, important fish lake and water levels have been dropping for past 20 years.
        - Colville Lake: Do not use – fish lake and used for drinking water. Colville Lake has dropped 30-40 feet.
    - Key concern is for Chick Lake. "It is the source of everything."
    - No water should be taken from fish lakes and beaver lakes. Signs should be posted for contractors to identify them as off limits and there should be a monitor to watch for these.
    - No heavy equipment should be travelling from FGH to Colville Lake until after Christmas. This is when Bluenose West caribou migrate through the area and it is important that they not be disrupted.

Analysis:

- Fort Good Hope and Colville Lake stated that many of the water sources proposed should not be used due to unacceptable impacts to fish and furbearer. In some cases, specific alternatives were proposed by the communities. In other cases, it was recommended that Elders work with the GNWT to identify appropriate water sources. None of the problem water sources seem to have been changed to accommodate the communities concerns.
- Do not see any consideration of use of community monitors as requested.

Questions/Discussion:
- If consideration was given to the issues raised by communities for selection of water sources, it is not evident in any of the materials available on the public registry.

Implementation Requirements:
- Recommend the proponent reconsider their choice of water sources to accommodate concerns and recommendations of communities as gathered through consultations and TEK study and resubmit application

CR #5 – Community Benefits

Conformity Determination: Conforms

Criteria:
- Looking for a summary of community benefits or public interest benefits in the application
- ABAs or an INAC Benefits Agreement would fulfill this CR where they are required

Data from Application:
- Lease agreements with both Ayoni Keh Land Corporation and K'asho Got'ine District Land Corporation

Analysis:
- Lease agreements and use of local contractors for construction and maintenance contracts
- The winter road system provides a vital link for seasonal inter-community travel for Sahtu communities, the public, government and industry.

Questions/Discussion: None

Implementation Requirements: None

CR #6 – Community Land Use Monitors

Conformity Determination: **Does Not Conform**

Criteria:

- Looking for intent to use a community monitor, evidence of community input into values to be monitored, description of appropriate role in locating values and monitoring impacts to them in the field
- Reporting requirements can be handled through terms and conditions in authorizations

Data from Application:

- Requests from FGH and Colville Lake to use monitors to ensure avoidance of key lakes/streams where water was not to be withdrawn, and to monitor quantities of water withdrawn from approved water sources
- DoT will hire a competent technical person to measure water velocities and volumes and to monitor water extraction rates and volumes and prepare daily extraction reports for all water used for the Department's winter road activities.

Analysis:

- The "technical person" described above does not seem to fit with the intent of a community monitor, though it does monitor water withdrawal volumes which is a main focus. The technician does not appear to be monitoring water sources used, and does not appear to report to the community.

Questions/Discussion:

- Can the SLWB require a monitor as a condition of authorization? What other implementation options are there?

Implementation Requirements:

- SLWB to attach conditions to a) require a community monitor (maybe); and b) implement reporting requirements.

CR #7 – Archaeological Sites, Historic Sites and Burial Sites

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:

- Looking for identification of sites through both PWNHC and community engagement/TK studies and evidence that such sites are being avoided by 150m, and 500m for burial sites
- If there is high potential for undocumented sites, evidence that a heritage resource assessment is carried out

Data from Application:

- Application states that sites were obtained from the PWNHC (not available on Public Registry) and that no impacts on these sites have been identified from the proposed activities
- A burial site was indicated in the TEK study at one end of Chick Lake (no mapping included to know which end)

Analysis:

- Mapping done for SLUP development indicates a number of archaeological sites along the winter road routing
- Given that the winter road has been in operation for a number of years, it is unlikely that the continued operation would impact these sites in any new way, or that an archaeological study would be needed again – would be up to PWNHC as the CR is written now
- Setbacks can be implemented through conditions

Questions/Discussion:
- Post-plan approval, would want to see evidence of consideration of setbacks and demonstration that they were adhered to

Implementation Requirements:
- SLWB to implement 150 m and 500 m setbacks as a condition of authorization

CR #8 – Watershed Management

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:
- Need to assess potential impacts to water quality, quantity and rate of flow within SMZs or CZs
- Nothing significant would be allowed (e.g. having a river/water body dry up)

Description of Impacts & Mitigation:
- Water Quantity/Flow:
    - Water extraction to be carried out from Nov 30th – March 31 of each winter road season and will not exceed type B water licence allotment of 300 m^3/day
    - Total water withdrawal estimate is 25,400 m^3 annually
    - Will be extracted from sources listed in accordance with DFO allowances of 5% instantaneous flow quantity in creeks/watercourses at time of extraction and 5% of winter availability from lakes.
    - Restrict water withdrawals to isolated waterbodies and non-fish-bearing watercourses wherever possible
- Water Quality:
    - Standard mitigations to prevent fuel entering water during construction
    - Spill and contingency plan for hazardous materials spills in place
    - Post flagging to warn transport drivers of dangerous conditions ahead which may lead to accidental spills
    - Training to ensure safe operation of vehicles, adherence to speed restrictions
    - Use of snow fill with minimal amts of dirt and debris and relocating crossing structures away from highly erodible sites

Analysis:
- Water Quantity/Rate of Flow:
    - Withdrawing water from all 3 CZs and both SMZs so there is a direct impact

    - In general, adhering to 5% withdrawal limits should be sufficient to prevent a substantial alteration of water quantity/flow in general.
    - Indication of multiple contractors means someone needs to be coordinating overall water withdrawals (DFO/SLWB) to monitor cumulative impacts
    - Given reports of very low water conditions, if a selected water source is found to be especially low or dry, any water withdrawal could have a significant impact. More sources than required to accommodate total withdrawal needs should be identified and approved to provide flexibility so as to avoid withdrawals that substantially alter the water source (can't tell from available info if this is done).
- Water Quality:
    - Frozen conditions and mitigation measures sufficient to mitigate general impacts from construction
    - Biggest risk to water quality is from a vehicle accident and spill from road use – contingency plans in place for that

Questions/Discussion:

- Difficult application to assess re water quantity / rate of flow – limiting withdrawal to 5% seems like a sufficient mitigation to ensure no substantial alteration, yet communities identified major concerns with some sources related to water levels
- Might be a situation where implementation of this CR requires some form of general monitoring of lake/flow levels? Discuss.

Implementation Requirements:

- SLWB to ensure water withdrawal limited to 5% of instantaneous flow / under ice volume (for each source per year) as a condition of authorization
- Regulators to attach any other conditions necessary to avoid substantial alteration of water quality, quantity and rate of flow
    - e.g. suggest that additional water sources be identified with communities/DFO for use in future years to accommodate variable water levels to avoid substantial alteration of water quantity/rate of flow.

CR #9 – Drinking Water

Conformity Determination: Conforms

Criteria:

- Need to assess potential impacts to downstream drinking water sources based on Map 6 of the Plan
- Nothing significant would be allowed
- Where there is significant risk, need to see specific evidence of discussions with the community on the topic, and either a commitment to do baseline water quality collection and regular monitoring, or it would have to be a condition of authorization to require those things.

Description of Impacts & Mitigation:

- See mitigation measures above for CR #8

Analysis:

- Potential impacts to FGH drinking water source (intake on the Mackenzie River) if there was a major spill into a stream or creek flowing into the Mackenzie River. Spill contingency plans in place to address spills – low risk.
- Almost no potential for impacts to Colville Lake drinking water source

Questions/Discussion: None

Implementation Requirements: None

CR #10 – Wildlife

Conformity Determination: **Does Not Conform**

Criteria:

- Looking for a statement that data was requested from appropriate organizations and discussed with community RRCs in community engagement and TK study
- Looking for evidence that key wildlife impacts are being mitigated, and particular attention to be given to special harvesting areas – if uncertain, additional measures can be imposed as conditions of authorizations where appropriate
- Looking for special consideration for protection of barren-ground caribou if in applicable area
- Look for adherence or commitment to horizontal setbacks and minimum flight altitudes for relevant species, or implement through conditions of authorizations

Description of Impacts & Mitigation:

- Temporary disruption to wildlife from noise of construction and presence of humans - standard mitigations (no hunting, waste management) to minimize impacts
- Increased mortality due to vehicle-wildlife collisions
- Long-term access enable wildlife harvesting along the winter road

Analysis:

- Most current data:
    - A literature review was completed on wildlife to identify species of concern along the winter road (does not appear to have a mapping component) –missed barren-ground caribou, muskox
    - Considerable information provided through TEK study on wildlife habitat and harvesting sites along the winter road
    - Not enough - if an application were submitted now, all key species listed in the CR should be assessed and GIS data would be expected along with the TK information supplied
- The whole area is within FGH-CL Group Trapping Area (important for trapping furbearers) – communities identified many water sources that should not be used to avoid impacts to beavers – does not appear to have been considered
- Bluenose West Barren-ground caribou overwinter along the Colville Lake winter road. RRC suggested that traffic not open until after Christmas to allow them to move out of the area.

- No discussion of wildlife setbacks but these could be applied as a condition of authorization

Questions/Discussion:
- Implementation requirements below suggested to implement CR

Implementation Requirements:
- Would expect more comprehensive assessment of impacts based on important wildlife habitat and harvesting areas using most current data – would require a revised application.
- Work with communities to identify water sources that minimize impacts to wildlife, especially to fish and furbearers – would require an revised application.
- Regulators to apply conditions to mitigate impacts to Bluenose West barren-ground caribou (e.g. delay road opening until they have left the area as suggested).
- Regulators to require adherence to setbacks as outlined in the CR as a condition of authorization (no flights - minimum altitudes not applicable)

CR #11 –Species Introductions

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:
- Looking for basic precautions to be taken to avoid introduction of species
- Where revegetation is required, that seed mixes are approved by the GNWT, ENR

Description of Impacts & Mitigation:
- No consideration of this CR in application
- Revegetation discussed as a possibility

Analysis:
- Frozen conditions and limited disturbance of vegetation/soil expected, especially given use of local contractors (and presumably local equipment)
- Could be handled through conditions

Questions/Discussion: None

Implementation Requirements:
- SLWB to apply conditions as required to minimize unintended introduction of invasive species
- Any reseeding to be done with seed mixes to be approved by land use inspectors (and ENR?)

CR #12 – Sensitive Species and Features

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:

- Looking for evidence that information was sought on the location of plants, karst, hot and warm springs, mineral licks, amphibian sightings, and ice patches from appropriate departments and adherence to setbacks other requirements as appropriate

Description of Impacts & Mitigation:

- The only feature discussed is unique plant species – their range was determined to be west of the winter road

Analysis:

- Based on mapping done during development of the SLUP, karst and hot/warm springs are known to be in the vicinity
- Other features were not investigated, though most are not in the vicinity of the winter road
- Could be handled by conditions

Questions/Discussion: None

Implementation Requirements:

- Regulators to determine location of sensitive features in relation to the project and apply relevant conditions as required under the CR

CR #13 – Closure and Reclamation

Conformity Determination: Conforms, subject to implementation requirements

Criteria:

- Part 1: If the applicant is not a municipal, territorial or federal government, security to be calculated to cover full cost of reclamation and required by SLWB as a condition of authorization
- Part 2: Expect to see discussion of long term use of the area with community orgs and government bodies to determine an appropriate reclamation goal, and a draft closure and reclamation plan to be included to achieve that goal.
    - Generally, the goal should be for full reclamation to the extent possible/reasonable.
    - Where a decision is made to not do that in order to accommodate further use, then that should be made explicit.
    - The "Plan" does not have to be a separate document but sufficient to describe intent, especially at early stages of land use.

Description of Impacts & Mitigation:

- Not discussed in application other than possible reseeding of areas devoid of vegetation to minimize erosion and sedimentation of water bodies.

Analysis:

Part 1: The GNWT is exempt from the requirement to post financial security – Not Applicable
Part 2:

- Will be subject to annual use, likely indefinitely, so reclamation doesn't make any sense at this stage.
- Should still include something about long-term reclamation and clean-up for when the road is no longer used, but not immediately urgent - could be managed under terms and conditions

Questions/Discussion:
- Need to add question under "criteria" to catch government exemption for security collection.
- Discuss what would be appropriate for inclusion of reclamation planning when the use is expected to be ongoing

Implementation Requirements:
- SLWB to attach requirement for closure and reclamation planning consistent with this CR as a condition of authorization

CR #14 – Permafrost

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:
- Looking for consideration of impacts to permafrost and mitigation measures in place to limit impacts to permafrost

Description of Impacts & Mitigation:
- No discussion of permafrost in application documents, just impacts to soils in general
- Basic mitigation measures employed - ensure ground is frozen with adequate layer of compacted snow present before road opening; ensure ground not disturbed when collecting snow; maintain a 5 m buffer between snow collection area and stream edge; monitor road conditions to ensure that soil is sufficiently frozen to prevent rutting, compaction or admixing; use of seasonal culverts at sites with winter flow

Analysis:
- Given winter conditions and mitigation measures, no substantial impacts expected
- Given repeated annual use, some rutting is to be expected
- TK study included comments from Norman Wells (contractor?) with suggestions on construction methods to reduce impacts to permafrost which should be considered and applied if appropriate

Questions/Discussion: None

Implementation Requirements:
- Regulators to attach any conditions to authorizations they deem necessary to minimize impacts to permafrost.

CR #15 – Climate Change

- Content not yet determined

CR #16 – 19

- Not applicable

CR #20 – Water Withdrawal

Conformity Determination: **Does Not Conform**

Criteria:

- Activity must not involve the withdrawal of water from Lac Belot, Stewart Lake or Tate Lake, other than from the lakes' outflow.

Description of Impacts & Mitigation:

- Propose to withdraw water from Lac Belot in 2 places for road construction and maintenance

Analysis:

- As above

Questions/Discussion: None

Implementation Requirements: None