

### Review Comment Table

<b>Board:</b>	GLWB
<b>Review Item:</b>	GNWT INF - Type A Land Use Permit Application - Dempster Highway Operations/Maintenance and Quarrying (G21E001)
<b>File(s):</b>	<a href="#">G21E001</a>
<b>Proponent:</b>	GNWT - INF (Infrastructure)
<b>Document(s):</b>	<a href="#">Permit Application</a> (14305 KB) <a href="#">Engagement Plan</a> (431 KB) <a href="#">Spill Contingency Plan</a> (426 KB) <a href="#">Sediment and Erosion Control Manual</a> (3059 KB) <a href="#">Waste Management Plan</a> (693 KB)
<b>Item For Review Distributed On:</b>	
<b>Reviewer Comments Due By:</b>	June 23, 2021
<b>Proponent Responses Due By:</b>	June 28, 2021
<b>Item Description:</b>	<p>Please be advised that GNWT INF has submitted to the to the Gwich'in Land and Water Board an application for a Type A Land Use Permit for the purpose of ongoing operation and maintenance of the Dempster Highway #8, including quarrying. The applicant requests a term of 5 years, beginning in June 2021, and carrying on activities currently authorized under permit G14E002.</p> <p>Using the Online Review System (ORS) reviewers are invited to submit recommendations on the documents linked below by the review comment deadline specified. Reviewers may also wish to consider providing an overarching recommendation regarding whether the Board should approve the submission, to provide context for the comments and recommendations and assist the Board with its decision. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the Applicant prior to submitting comments and recommendations.</p>

	<p>Preliminary Screening (Part 5 of the MVRMA): Under the Preliminary Screening Requirement Regulations, the Board must conduct a preliminary screening for a proposed development, unless it is exempt from preliminary screening in accordance with the Exemption List Regulations. Reviewers are encouraged to provide comments and recommendations (e.g., on impacts and mitigation measures) to assist with the Board's preliminary Screening Determination.</p> <p>Draft Permit: A draft Permit has been developed by Board staff, using the MVLWB's current Standard Land Use Permit Conditions Template, to allow reviewers to comment on possible conditions. Non-standard conditions are shown in green. These draft materials are not intended to limit in any way the scope of reviewers' comments. The Board is not bound by the contents of the draft Permit and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all parties</p> <p>All documents that have been uploaded to this review are also available on our public Registry. If you have any questions or comments about the ORS or this review, please contact Board staff identified below.</p>
<b>Contact Information:</b>	AlecSandra Macdonald please email

### Comment Summary

GNWT - PWNHC (Prince of Wales Northern Heritage Centre (w/in ECE)): Naomi Smethurst				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	
1	Protection of Historical, Archaeological, and Burial Sites	<p><b>Comment</b> The proposed work areas for quarry sites are unclear.</p> <p><b>Recommendation</b> Please provide figures showing the footprint of each proposed work area and describe whether proposed quarry activities will be within existing disturbed areas. Further archaeological work may be required if previously undisturbed terrain is expected to be impacted.</p>	<p><b>June 28:</b> Quarry work will take place within existing disturbed areas. Images of the quarries can be found on page 18 through 29 of the application. Full investigations will be carried out prior any work on undisturbed lands</p>	
Gwich'in Renewable Resources Board: Staff Gwichin Renewable Resource Board				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	

1	GRRB Comments	<p><b>Comment</b> Thank you for the opportunity to comment on this proposal. There are no concerns. Our Wildlife Biologist had the following recommendations that should be passed on to the operator please:</p> <p><b>Recommendation</b> <i>We encourage you to limit noise from generators, compressors, and other machinery as much as possible. Prolonged exposure to noise can be disruptive to wildlife and birds. Please monitor for invasive weeds in and around gravel pits and ensure they are removed promptly. Transporting gravel has the potential to spread weeds long distances. When undertaking work during nesting season, please perform a thorough nest search prior to commencing operations and take precautions not to disturb or destroy active songbird nests. Most migratory birds, as well as their eggs and nests, are protected under the federal Migratory Birds Convention Act. Bank swallows are known to nest in gravel pits throughout the GSA. The birds and their nests are protected under the Migratory Birds Convention Act and the federal Species at Risk Act. During nesting season, aggregate pits should be examined regularly for bank swallow nests. If active nests are found, mitigation measures should be put in place to avoid disturbing them. The Ontario Stone, Sand &amp; Gravel Association offers best practices advice for aggregate producers, including information on how to encourage the birds to limit their colonies to the inactive areas of a pit:</i></p> <p><a href="https://ossga.com/multimedia/0/fs_bank_swallows-ossga.oct.1.2015.pdf">https://ossga.com/multimedia/0/fs_bank_swallows-ossga.oct.1.2015.pdf</a></p>	June 28: Noted	
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[https://ossga.com/multimedia/0/fs\\_bank\\_swallows-ossga.oct.1.2015.pdf](https://ossga.com/multimedia/0/fs_bank_swallows-ossga.oct.1.2015.pdf)

Gwich'in Tribal Council - Department of Cultural Heritage : Sharon Snowshoe

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	
19	General File	<b>Comment</b> ( <a href="#">doc</a> ) GTC DCH Letter <b>Recommendation</b>		
1	unspecified activities	<p><b>Comment</b> The land use permit application includes numerous activities, not all of which are clearly described in terms of location, activity, impacts, and so on. . Operation and maintenance of the Dempster Highway and adjacent roads. This includes changing the banks of the road, changing bridges and culverts, making ice road crossings, and so on. . Quarrying and geotechnical work at quarries and other locations. Note that it is unclear if new ground will be opened for any pit in the list, which dramatically affects archaeological assessments. . Camps and fuel/equipment caching</p> <p><b>Recommendation</b> It is impossible for the Department to assess activities that do not include a location, timeline, and specific activities, for how these activities may impact Gwich'in culture and heritage values. For this reason, all activities listed in this permit application outside of quarrying and road surface maintenance of the Dempster are not included in our assessment in this letter. These activities (such as geotech, culvert replacement, camps, and so on) will need separate assessments when they arise. The GTC is willing to work with the proponent and the GLWB to ensure a system of notification and engagement will work for all parties, but decisions about whether or not a</p>	<p><b>June 28:</b> Operation and maintenance activities will be occurring throughout the life of the land use permit. All works that require additional permitting, licensing or an amendment of the land use permit will be communicated with stakeholders and rights holders during the engagement period.</p>	

		particular task affects heritage/culture cannot be left to a land manager.		
2	Management Plans	<p><b>Comment</b> As noted for the 2014 assessment of this license, two management plans were being developed: Dempster Highway (as indicated by Glen MacKay, NWT Assessment Archaeologist), and Gwich'in Territorial Park.</p> <p><b>Recommendation</b> The Department of Transportation should ensure they are aware of the conditions of the plans, and should inform the parties drafting the plan of any development which may impact the planning process. The Department would like to review these plans as they stand and be made aware of whether they are complete and the timeline for completion</p>	<p><b>June 28:</b> The Department of Infrastructure (INF) is not aware of the plans referenced. INF is open to engage with the organizations undertaking the plans to discuss further</p>	
3	Traditional Activities	<p><b>Comment</b> The entire Dempster Highway is an important travel route for Gwich'in harvesting and other traditional activities.</p> <p><b>Recommendation</b> In this time of reconciliation and in keeping with UNDRIP, the DCH recommends that the activities planned be discussed with the RRCs in all four Gwich'in communities to ensure that traditional activities are protected and supported byGNWT</p>	<p><b>June 28:</b> The engagement plan will be followed to communicate with the public of any land use permit renewals, amendments or extensions, highway closures and conditions, and highway maintenance</p>	
4	Location Information	<p><b>Comment</b> No location information on highway maintenance such as grading. We assume all licensed activities will be within previously-disturbed areas of the highway.</p> <p><b>Recommendation</b> If that is not the case, then the DCH and the PWNHC must be contacted.</p>	<p><b>June 28:</b> Maintenance of the highway will occur within the permitted highway right-of-way (ROW). Any work outside of the ROW that will require an amendment to the land use permit will include engagement with stakeholders and rights holders during the engagement period</p>	

5	Notification and Contact	<p><b>Comment</b> Other improvements that are of a greater scope (Geotech and culvert replacement, for example) must include contact with the DCH prior to starting, so the DCH can assess for impacts to culture and heritage values.</p> <p><b>Recommendation</b> None</p>	<p><b>June 28:</b> Any works that requires additional permitting, licencing or amendment of the land use permit will be communicated with stakeholders and rights holders during the engagement period</p>	
6	Pit Plans	<p><b>Comment</b> Pit management plans and archaeological overview assessment plans are needed for all pits, and to our knowledge only two pit management plans exist.</p> <p><b>Recommendation</b> The PWNHC, OCH, and DOT should work together to prepare an archaeological site management plan for the Dempster Highway. In the meantime, AOA and AIA as needed of all pits which may be expanded into undisturbed areas over the lifetime of this license is required, unless AIA / AOA has been carried out already.</p>	<p><b>June 28:</b> Any new quarry sites or sites that will be expanded will require a full investigation prior to moving to a new undisturbed area. INF is open to engage with the organizations undertaking the plan to discuss further</p>	
7	KM23.9	<p><b>Comment</b> Within major trail corridor, increases likelihood of unrecorded archaeological materials at site.</p> <p><b>Recommendation</b> Within range of the Porcupine caribou herd. Activities which may interact with caribou presence or caribou hunting should be avoided, and the RRC contacted if there will be any such interactions for further advice. Within major trail corridor: traditional use of the highway and surrounding area for hunting should be protected Development should not impact traditional use. Seasonal bald eagle habitat; Seasonal grizzly bear habitat (Species at Risk)</p>	<p><b>June 28:</b> Noted</p>	
8	KM 28.8	<p><b>Comment</b> Within major trail corridor, increases likelihood of unrecorded archaeological materials at</p>	<p><b>June 28:</b> Noted</p>	

		<p>site.</p> <p><b>Recommendation</b> Near to berry-picking areas. Dust and traffic may impact the ability to use berry harvesting sites. If development will interact with berry harvest locations/times, the berry harvesters should be contacted to determine mitigation strategies. Within range of the porcupine caribou herd. Activities which may interact with caribou presence or caribou hunting should be avoided, and the RRC contacted if there will be any such interactions for further advice. Within major trail corridor: traditional use of the highway and surrounding area for hunting should be protected. Seasonal bald eagle habitat; Seasonal grizzly bear habitat (Species at Risk)</p>		
9	KM 34.6	<p><b>Comment</b> Numerous trails nearby, increases likelihood of unrecorded archaeological materials at site.</p> <p><b>Recommendation</b> This area is within the range of the Porcupine Caribou herd. Activities which may interact with caribou presence or caribou hunting should be avoided, and the RRC contacted if there will be any such interactions for further advice This camp is close to berry harvest areas. If development will happen during berry harvest seasons, there should not be interactions between berry harvest and the development, including dust contamination, prevention of access of traditional harvest areas, and so on. Seasonal bald eagle habitat; Seasonal grizzly bear habitat (Species at Risk)</p>	June 28: Noted	
10	KM 36.7	<p><b>Comment</b> Archaeological assessment completed in 2009 by DCH, no concerns at this time.</p> <p><b>Recommendation</b> This area is within the range of</p>	June 28: Noted	

		<p>the Porcupine Caribou herd. Activities which may interact with caribou presence or caribou hunting should be avoided, and the RRC contacted if there will be any such interactions for further advice. This camp is within berry harvest areas. If development will happen during berry harvest seasons, there should not be interactions between berry harvest and the development, including dust contamination, prevention of access of traditional harvest areas, and so on. Seasonal bald eagle habitat; Seasonal grizzly bear habitat (Species at Risk)</p>		
11	KM 141	<p><b>Comment</b> Within major trail corridor, increases likelihood of unrecorded archaeological materials at site.</p> <p><b>Recommendation</b> There is a cabin ~500m from this site. If in active use, this cabin's owner must be engaged about mitigation. 2003 owner: L. Jerome. Boreal woodland caribou (Species at Risk) calving area about 750m from the site. Within close proximity to named place Theetoh Nin', a trail between Tsiigehtchic and Fort McPherson. Within traditional beaver, muskrat, and mink trapping area for Tsiigehtchic residents Near traditional fishing areas Traditional moose hunting area</p>	June 28: Noted	
12	KM 166.3	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Boreal woodland caribou frequently sighted along the highway and in the general area (Species at risk) Within swan habitat Within habitat/hunting areas for black bear, caribou, moose.</p>	June 28: Noted	
13	KM178.1	<p><b>Comment</b> Trails and place names nearby increase likelihood of unrecorded archaeological remains.</p> <p><b>Recommendation</b> Boreal woodland caribou</p>	June 28: Noted	

		frequently sighted along the highway and in the general area (Species at risk) Pit is located on traditional Gwich'in named river (Rengleng River) Coal extraction by Tsiigehtchic nearby. Within habitat/hunting areas for black bear, caribou, moose.		
14	KM193.7	<b>Comment</b> None <b>Recommendation</b> Traditional trapping area for Tsiigehtchic Within habitat/hunting areas for black bear, caribou, moose, grizzly.	<b>June 28:</b> Noted	
15	KM211.2	<b>Comment</b> Trails nearby. <b>Recommendation</b> Active hunting/trapping area (Tom Wright). Within habitat/hunting areas for black bear, caribou, moose.	<b>June 28:</b> Noted	
16	KM230.2	<b>Comment</b> None <b>Recommendation</b> Tentframe camp in this location. If active, owner/user should be engaged about mitigation. Within berry-picking area. Dust and traffic may impact the ability to use berry harvesting sites. Within habitat/hunting areas for black bear, caribou, moose.	<b>June 28:</b> Noted	
17	KM 235	<b>Comment</b> Within major trail corridor, increases likelihood of unrecorded archaeological materials at site. Numerous archaeological sites nearby. (Arch assessment done) <b>Recommendation</b> Within fishing area Within habitat/hunting areas for black bear, caribou, moose.	<b>June 28:</b> Noted	
18	KM 251	<b>Comment</b> Unrecorded but known archaeological remains. Site must not be developed further until this is rectified.	<b>June 28:</b> Noted	

		<b>Recommendation</b> Within habitat/hunting areas for caribou and moose.		
<b>Gwich'in Tribal Council - Lands and Resources: Kanda Gnama</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	
10	General File	<b>Comment</b> ( <a href="#">doc</a> ) GTC L&R letter <b>Recommendation</b>		
1	Cumulative Effects	<b>Comment</b> None <b>Recommendation</b> From a lands and resources management perspective, there is a concern that the areas of activity specified in the Project Description are not prescriptive enough to assess whether they will contribute to long-term cumulative impacts in the Gwich'in Settlement Area.		
2	Quarry Management	<b>Comment</b> None <b>Recommendation</b> It is the recommendation of GTC Lands and Resources (GLR) that pit management plans be developed for all quarry sites located on Commissioner's Lands along Highway 8 within the GSA. As demand for granular resources continues over the long term, it is important to understand the types, quantities, and qualities of the resources available and strategically manage them until such time that the resources are effectively exhausted and site-specific reclamation plans initiated. Without a comprehensive management plan in place for individual pits, it is difficult to determine how the various users of these pits, including contractors, sub-contractors, and the local public, contribute to cumulative impacts on the lands and surrounding environments through ongoing access and use. If not for all pits (e.g., those with multiple users), this recommendation should at least be	<b>June 28:</b> Pit management plans are included as required in the quarry permit applications to The Department of Lands	

		considered where INF is the sole permit holder for quarries along Highway 8.		
3	Information Request - Abandoned Quarries	<p><b>Comment</b> None</p> <p><b>Recommendation</b> It is requested that further information be provided on INF's labelling of abandoned quarries that are being proposed for reactivation. How long have these quarries been out of commission and has that passage of time enabled natural reclamation or environmental rejuvenation processes to occur? If so, to what extent, and how has that altered vegetative communities, wildlife habitat and human uses of the areas (e.g., new berry picking opportunities)?</p>	<p><b>June 28:</b> Site km 6 has been and will continue to be used as a stockpiling site. INF does not proposed to use the abandon pits at km 193.7 and km 211.2.</p>	
4	Information Request - pits	<p><b>Comment</b> None</p> <p><b>Recommendation</b> To further assess the management and impacts of quarry usage over time, the following information should be provided: the coordinates for Km 34.6 and 36.7; and an aerial photograph of Km 251 demarcating the current areas that have been worked / disturbed, and the undisturbed area(s) where INF is proposing to extend the quarry footprint.</p>	<p><b>June 28:</b> Coordinates for Km 34.6&amp;nbsp; &amp;nbsp;67&amp;deg; 12&amp;#39;14&amp;quot;N, 135&amp;deg;37&amp;#39;59&amp;quot; W km 36.7 - 67&amp;deg;13&amp;#39;23&amp;quot;N, 135&amp;deg;34&amp;#39;44&amp;quot;W Image of INF work zone at km 251 is attached. No expansion at km 251 is included in this application <b>June 28:</b> Please note on the attached image the legend should read km 251 area, not km 255 widening.</p>	
5	Culture, Heritage and Archaeological Resources	<p><b>Comment</b> None</p> <p><b>Recommendation</b> GLR supports the GTC Department of Culture and Heritage (DCH) recommendation that an archaeological site management plan be developed for Highway 8. The GSA lands include non-renewable cultural and heritage resources that must be identified, preserved, and protected before they are</p>	<p><b>June 28:</b> INF is open to engage with the organizations undertaking the plan to discuss further. No work on undisturbed grounds at km 251 is included with the application</p>	

		destroyed. This is particularly important for any project work that will take place on previously undisturbed grounds (e.g., at the Km 251 pit)		
6	Culture, Heritage and Archaeological Resources	<p><b>Comment</b> None</p> <p><b>Recommendation</b> GLR notes in the Draft Land Use Permit that Sections 44 and 45 include provisions that the permittee conducts an Archaeological Overview prior to any new land disturbances, and that areas identified as having high potential for archaeological or burial sites will be subject to an Archaeological Impact Assessment; it is recommended to retain these sections for the final permit, but with the addition of DCH to the summary report recipient list.</p>	June 28: Noted	
7	Camps	<p><b>Comment</b> None</p> <p><b>Recommendation</b> GLR recommends that any camps are established only within the footprint of one of the quarries identified in Section 8 of the project application, and/or on durable land only.</p>	June 28: Noted	
8	General Use Areas	<p><b>Comment</b> None</p> <p><b>Recommendation</b> It is recommended that INF employ the use of a drone to capture aerial images of all proposed work sites including but not limited to quarries, staging areas, stockpiling sites, areas of geotechnical investigation, areas where roadway embankments will be altered, and where bridges and culverts will be maintained and/or replaced. Images should be captured both before the commencement of this Land Use Permit project activities, and again at the end of the permit period, and incorporated into reporting requirements to the GLWB. This will enable an informed assessment of how project activities are altering the landscape in a</p>	June 28: INF is open to further engagement with the interested organizations to discuss this request	

		<p>real-time manner over the life of a permit. INF can then present the before-and-after images as substantial evidence of how project work is carried out over time, and these can then be incorporated into the Project Description for future permit renewal applications. This is a strong recommendation and, considering the magnitude and general costs associated with ongoing Highway 8 maintenance work, the use of a drone for a day at the beginning and end of the project should be considered reasonable and achievable. It will provide valuable assessment abilities for all stakeholders who are concerned with land and resource management issues within the GSA.</p>		
9	Conclusion	<p><b>Comment</b> None  <b>Recommendation</b> INF's Highway 8 project work is recognized as being essential to the modern economies within the GSA, but it is important that detailed and informative materials be presented to the region's stakeholders during assessment and decision-making processes. GLR will appreciate attention to the above-described information deficiencies and recommendations, to best manage the area's lands and resources, now and for future generations.</p>	June 28: Noted	