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Building *Nunavut* Together  
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Bâtir le *Nunavut* ensemble

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Government of Nunavut  
Nunavut Kavamat  
Gouvernement du Nunavut

July 27, 2020

Keith Morrison  
Technical Advisor II  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU X0B 0C0

Sent VIA Email: [info@nirb.ca](mailto:info@nirb.ca)

**RE: Comment Request for TMAC's Hope Bay 2019-2020 Annual Report.**

Dear Keith Morrison,

On behalf of the Government of Nunavut (GN), I would like to thank the Nunavut Impact Review Board (NIRB) for the opportunity to provide comments on TMAC's Doris North and Hope Bay Project 2019 Annual Report.

The GN has reviewed the 2019 Annual Report for the "Doris North and Hope Bay" project and provides our comments in the attached Appendix.

Should you have any concerns with our comments, please contact me by phone at 867-975-7757 or by email at [Bpirie@gov.nu.ca](mailto:Bpirie@gov.nu.ca).

Qujannamiik

[Original Signed By]

Bradley Pirie

Project Manager, Research and Monitoring

Cc' Natalie O'Grady [Nogrady@gov.nu.ca](mailto:Nogrady@gov.nu.ca)  
Avatiliriniq Coordinator

## Appendix

<b>GN Comment # 01</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Mine Closure and Reclamation Plan – Progressive Reclamation
<b>Terms and Conditions</b>	8
<b>References</b>	<ul style="list-style-type: none"> <li>• Hope Bay Project Boston Conceptual Closure and Reclamation Plan (SRK 2017a)</li> <li>• Hope Bay Project Doris-Madrid Interim Closure and Reclamation Plan (SRK 2017b)</li> <li>• TMAC Resources Inc. Phase 2 Hope Bay Belt Project NIRB Project Certificate No. 009</li> <li>• Hope Bay 2019 Annual Monitoring Report (April 2020)</li> <li>• Naeth, M.A. and S.R. Wilkinson. 2011. Reclamation at the Diavik Diamond Mine in the Northwest Territories substrates, soil amendments and native plant community development phase II final report. Final Report to Diavik Diamond Mines Inc. Edmonton AB. 31 pp.</li> <li>• Jorgenson, M.T. and M.R. Joyce. 1994. Six strategies for rehabilitating land distributed by oil development in arctic Alaska. Arctic 47:374-390.</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>Project Certificate #009, Term and Condition #8 states:</p> <p style="padding-left: 40px;">“Acceptability of reclamation efforts should [be] confirmed through the Proponent’s public engagement with local communities and discussion of local aesthetic values (e.g. acceptability of the topography and landscape of the project areas following progressive reclamation efforts). Progressive reclamation efforts should also demonstrate consideration for the feasibility of topsoil/organic matter salvage to promote revegetation.”</p> <p>Reclamation efforts for 2019 focused on the Doris Crown Pillar Recovery Trench, as described in Section 11.1 of the Proponent’s Hope Bay Project 2019 Annual Report (“Annual Report”). Acceptability of reclamation efforts are to be confirmed through public engagement with local communities. Section 11.1 of the Annual Report does not indicate whether this public engagement has occurred or not, and whether this condition as described under Term and Condition #8 of NIRB Project Certificate #009 has been fulfilled.</p>	

**IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

Progressive reclamation and restoration allow ecosystem processes to continue during operations once activities have been completed. Because natural recovery of disturbed sites can take decades (Jorgenson and Joyce 1994, Naeth and Wilkinson 2011), progressive reclamation allows for recovery to commence as soon as possible. Natural contours to the landscape maintain aesthetic values for local people and provide consistent habitat conditions for wildlife and plants that exist and occasionally overlap with the project footprint. The Proponent's 2019 Annual Report does not include (i) discussion of the progressive reclamation efforts completed to date or (ii) reporting on any public engagement, or whether such engagement has included discussion on whether proposed topography and landscape once restored will align with aesthetic values of the local community.

**RECOMMENDATION(S)**

The GN requests that the Proponent revise the Annual Report to include details on the (i) progressive reclamation and (ii) public engagement completed to date. Or, if neither has yet been completed, the GN requests that the Proponent revise the Annual Report to clearly indicate such.

<b>GN Comment # 02</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Wildlife and Wildlife Habitat – Caribou and Muskox Mitigation Measures
<b>Terms and Conditions</b>	22
<b>References</b>	<ul style="list-style-type: none"> <li>• Government of Nunavut, 2016, GN Comments on TMAC Resources Inc.'s "Doris North Gold Mine Project" 2015 Annual Monitoring Report, Comment 2/4 ("GN, 2016")</li> <li>• Government of Nunavut, 2017, GN Comments on TMAC Resources Inc.'s "Doris North Gold Mine Project" 2016 Annual Monitoring Report, Comment 02 – Remote Camera Monitoring ("GN, 2017")</li> <li>• Government of Nunavut, 2018, GN Comments on TMAC Resources Inc.'s "Doris North Gold Mine Project" 2018 Annual Monitoring Report, Comment 01 – Camera Monitoring ("GN, 2018")</li> <li>• WMMP (December 2019) Hope Bay Project, Wildlife Mitigation Monitoring Plan (December 2019)</li> <li>• Appendix C-3 Hope Bay Project: 2019 Wildlife Mitigation and Monitoring Plan Compliance Report</li> <li>• TMAC Resources Inc. Phase 2 Hope Bay Belt Project NIRB Project Certificate No. 009</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>"From fall 2017 through spring 2018, camera effort (typically recorded via timed photos automatically taken throughout each day) was unavailable due to a camera programming error; therefore, from September 2017 through the next re-programming phase in June 2018, each camera's effort was assumed to be the same as the previous year's effort for a given camera and month." (TMAC, 2020, 2019 Wildlife Mitigation and Monitoring Plan Compliance Report, Section 3.4.2.2 pp. 3-12).</p> <p>Section 3.4.2.2 of the Proponent's 2019 Wildlife Mitigation and Monitoring Plan Compliance Report analyses the results of the wildlife camera program including any issues that occurred with the collection of data. The Proponent states:</p> <p style="padding-left: 40px;">"Camera data were corrected for daily effort, where the camera was considered to have no effort during periods of more than 24 hours with snow obscuring the camera or if the camera was knocked over." (repeat)</p>	

The Proponent's 2019 Wildlife Mitigation and Monitoring Plan Compliance Report describes the exclusion of cameras from the statistical analysis where camera effort was deemed too low in December and January across years, and these months were excluded from the analysis altogether (TMAC, 2020, 2019 Wildlife Mitigation and Monitoring Plan Compliance Report, Appendix C-3, Section 3.4.3.2, pp 3-18). Further, the Proponent's analysis excluded periods of low effort where monthly camera effort was below 7 days per month.

### **IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

Year-round monitoring of wildlife around the Project is necessary to detect effects to wildlife from Project activities. The Proponent's current monitoring program does not allow for reliable and comparable year-round monitoring data.

Previous GN review comments to the Proponent's camera monitoring program in the Proponent's 2015, 2016 and 2018 annual reports identified similar issues. In comments on the 2015 annual reports, the GN recommended the Proponent:

“[U]pdate its remote camera monitoring program to upgrade its current snow build up measures [...] to ensure that the monitoring program does not suffer any unnecessary outages”. (GN, 2016)

In comments on the 2018 annual report, the GN recommended the Proponent:

“update its wildlife camera monitoring program to include more frequent equipment checks on camera traps so as to ensure their operation and to prevent further losses of camera effort and data gap; investigate and implement the use of alternate cameras or methods of setting up the cameras that may be more capable of data collection during winter; and makes concerted effort to address the GN's previous comments on redesigning the camera program to prevent prolonged outages.” (GN, 2019)

The GN has continued concerns with the analysis of wildlife camera data providing a representative result for comparison across multiple years and also across all seasons due to missing data for winter months.

### **RECOMMENDATION(S)**

The GN requests that the Proponent address all outstanding issues related to wildlife camera monitoring for caribou and muskox, including an update to its wildlife camera monitoring program to include more frequent equipment checks on camera traps so as to ensure their operation and to prevent further losses of camera effort and data gap. The GN also recommends that the Proponent investigate and implement the use of alternate cameras or methods of setting up the cameras that may be more capable of and reliable for data collection during winter; and that the Proponent makes concerted effort to address the GN's previous and ongoing comments on redesigning the camera program to prevent prolonged outages.

<b>GN Comment # 03</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Disruption of Caribou Movements
<b>Terms and Conditions</b>	12MN001-Final Hearing Report Commitment #46
<b>References</b>	<ul style="list-style-type: none"> <li>• NIRB Final Hearing Decision for the Phase 2 Hope Bay Belt Project (Page B-9 and B-10)</li> <li>• Hope Bay Project - 2019 Nunavut Impact Review Board Annual Report (TMAC, April 2020)</li> <li>• TMAC Resource Inc Hope Bay Project: 2019 Wildlife Mitigation and Monitoring Program Compliance Report Appendix C-3 (TMAC 2020)</li> <li>• 191231-05MN047 12MN001-2019 Wildlife Mitigation and Monitoring Plan (TMAC, December 2019)</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>Final Hearing Report Commitment #46 calls for the Wildlife Mitigation and Monitoring Plan (WMMP) to be revised to include the following:</p> <p style="padding-left: 40px;">“The Project’s effects on caribou movements will be monitored at a local scale using behavioral observations from height-of-land surveys and snow track study.</p> <p style="padding-left: 40px;">The design of these monitoring programs will be developed in consultation with the Government of Nunavut and the Inuit Environmental Advisory Committee, will use methods supported by peer reviewed literature and will consider statistical power.</p> <p style="padding-left: 40px;">The snow track study will be designed to estimate the index of permeability of Project roads to caribou. These programs may be discontinued after definitive results are obtained or if statistical power cannot be achieved by means of reasonable sampling design and effort, as determined by NIRB.”</p> <p>The Proponent’s Hope Bay Project 2019 Annual Report (Annual Report) does not report on the effects on caribou movements at a local scale using behavioural monitoring from height-of-land</p>	

(“HOL”) surveys and snow track study. While Section 3.4 of Appendix C-3 of the 2019 WMMP Compliance Report documents three methods for monitoring caribou:

1. Analysis of collar data;
2. Wildlife cameras; and
3. Wildlife Sightings/Reporting program,

HOL and snow track surveys are not documented.

#### **IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

HOL and snow track surveys are necessary to identify project effects on caribou at a local scale. Wildlife camera data is only presented up to September 2019 so fall/winter data is missing. Thus, the importance of supplementary data collection methods such as snow track surveys and HOL surveys become increasingly important to understand caribou behavior in relation to Project activities. Due to uncertainty surrounding the effects of the Project on caribou movements, impact verification is of paramount importance.

Previous GN comments noted that the study design for HOL surveys are not specified in the WMMP and therefore it is not possible to determine their usefulness in assessing effects on caribou movement (Annual Report, Appendix C-3, Appendix 3.10-2; ID #GN-18).

#### **RECOMMENDATION(S)**

The GN recommends that the Proponent:

- 1) Update the Annual Report to include methods used for HOL and snow track surveys that are developed in consultation with the Government of Nunavut and the Inuit Environmental Advisory Committee
- 2) Update the Annual report to summarize the results of HOL and snow track surveys completed in 2019

<b>GN Comment # 04</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Road Design – Permeability of Caribou (Crossing Behaviour)
<b>Terms and Conditions</b>	12MN001-Final Hearing Report Commitment #48
<b>References</b>	<ul style="list-style-type: none"> <li>• NIRB Final Hearing Decision for the Phase 2 Hope Bay Belt Project (Page B-10)</li> <li>• Hope Bay Project - 2019 Nunavut Impact Review Board Annual Report (TMAC, April 2020)</li> <li>• Appendix C-3 Hope Bay Project: 2019 Wildlife Mitigation and Monitoring Program Compliance Report (TMAC 2020)</li> <li>• Wilson et al., 2016, Effects of roads on individual caribou movements during migration, Biological Conservation, 195, pp. 2-8</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>Final Hearing Report Commitment #48 calls for the Wildlife Mitigation and Monitoring Program (WMMP) to be revised to include the following:</p> <p style="padding-left: 40px;">“Periodically during the Project, analyses of caribou road crossing behaviour will be conducted to examine crossing locations in relation to wildlife crossing structures. These analyses will use available data from collars, snow track surveys, and height-of-land monitoring. Results will be presented in annual reports.”</p> <p>The Proponent’s Hope Bay Project 2019 Annual Report (Annual Report) does not present the results of this analysis. The Proponent has installed cameras #2 and #35 at the two caribou crossing ramps along the Doris-Windy All-Weather-Road , however no caribou crossings were recorded at either location. The addition of well-designed height-of-land surveys and snow track surveys could provide additional information about caribou road crossings, however neither study method was employed in 2019.</p>	
<b>IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE</b>	
<p>Understanding Project effects on caribou movement within the local study area is of paramount importance, especially migratory behavior of the Dolphin and Union herd and connectivity within their winter range, given the uncertainty in the creation of Final Environmental Impact</p>	

Statements. Disruption of caribou movements associated with mine haul roads have been detected within a 14-km zone of influence through previous studies (Wilson et al. 2016). The Annual Report should be addressing knowledge gaps on local road permeability for caribou through the effective implementation of well-designed studies as contemplated in Commitment #48.

**RECOMMENDATION(S)**

The GN recommends that the Proponent update Section 3.4 of Appendix C-3 of the WMMP Compliance Report to provide a complete analysis of caribou road crossing behavior utilizing data from all study methods outlined in Commitment #48.

<b>GN Comment # 05</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Road Design – Permeability of Caribou (Snow Bank Monitoring)
<b>Terms and Conditions</b>	12MN001-Final Hearing Report Commitment #49
<b>References</b>	<ul style="list-style-type: none"> <li>• NIRB Final Hearing Decision for the Phase 2 Hope Bay Belt Project (Page B-10)</li> <li>• Hope Bay Project - 2019 Nunavut Impact Review Board Annual Report (TMAC, April 2020)</li> <li>• Appendix C-3 Hope Bay Project: 2019 Wildlife Mitigation and Monitoring Program Compliance Report (TMAC 2020)</li> <li>• 191231-05MN047 12MN001-2019 Wildlife Mitigation and Monitoring Plan (TMAC, December 2019)</li> <li>• Rescan Environmental Services Ltd., 2011. Ekati Diamond Mine: 2010 Wildlife Effects Monitoring Program. Prepared for BHP Billiton Canada Inc: Rescan Environmental Services Ltd.: Vancouver, British Columbia.</li> <li>• Fuller, T. and L. B. Keith, 1981, Woodland caribou population dynamics in northeastern Alberta, J. Wildlife Manage 45, pp. 197-213.</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>Final Hearing Report Commitment #49 calls for the Wildlife Monitoring and Mitigation Plan (WMMP) to be revised to include the following:</p> <p style="padding-left: 40px;">“TMAC will implement a program to monitor and report snow bank heights along Project roads. This program will allow estimation of mean height and variance at a series of designated monitoring locations that are representative of snow conditions along the roads. This program will continue until operational snow management is characterized.”</p> <p>Despite Commitment #49, an analysis of snowbank height along project roads is not reported in the 2019 WMMP Compliance Report.</p>	

**IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

Snow banks along Project roads have the potential to disrupt caribou movements where snow banks are of sufficient height to act as a barrier to caribou crossing. Rescan (2011) found that caribou avoided roads when snow banks exceeded 1.6 m. Fuller and Keith (1981) found that boreal caribou move into areas of lower snow depth to support ease of movement. A clear understanding of mean snow bank heights at designated monitoring locations is necessary to identify potential impacts on caribou movement through the Project site.

**RECOMMENDATION(S)**

The GN recommends that the Proponent update Appendix C-3 of the WMMP Compliance Report to provide details of snow bank height monitoring along Project roads. Reporting shall include an estimation of mean height and variance at a series of designated monitoring locations that are representative of snow conditions along the roads.

<b>GN Comment # 06</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Traffic Monitoring and Management
<b>Terms and Conditions</b>	12MN001-Final Hearing Report Commitment #52
<b>References</b>	<ul style="list-style-type: none"> <li>• NIRB Final Hearing Decision for the Phase 2 Hope Bay Belt Project (Page B-11)</li> <li>• Hope Bay Project - 2019 Nunavut Impact Review Board Annual Report (TMAC, April 2020)</li> <li>• Appendix C-3 Hope Bay Project: 2019 Wildlife Mitigation and Monitoring Program Compliance Report (TMAC 2020)</li> <li>• TMAC Resources Inc. Final Environmental Impact Statement Volume 3, Table 4.5-1</li> <li>• 191231-05MN047 12MN001-2019 Wildlife Mitigation and Monitoring Plan (TMAC, December 2019)</li> <li>• Curatolo, James A. and Stephen M. Murphy, 1986, The effects of pipelines, roads, and traffic on the movements of caribou, Rangifer tarandus, The Canadian Field-Naturalist 100(2), pp. 218-224.</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>Final Hearing Report Commitment #52 requires that:</p> <p>“The peak traffic rates as presented in table 4.5-1 in FEIS Vol. 3 (or those identified by the Proponent, during the Project’s NIRB review) shall be established as Project monitoring thresholds. If the annual or season traffic rates estimated from Project monitoring exceed the established thresholds by greater than 25% in two (2) consecutive monitoring periods, TMAC shall conduct a revised assessment of the potential impacts of this excess traffic on wildlife. The monitoring data, analysis of effects shall be submitted in the annual WMMP compliance report for NIRB consideration.”</p> <p>The vehicle logs presented in the Wildlife Monitoring and Mitigation Compliance (WMMP) Report (Appendix 2.2-1 of Appendix C-3) are not aligned with the thresholds set out in Table 4.5-1 of the FEIS making it difficult to compare results. Table 4.5-1 in the FEIS summarizes the following road sections:</p> <ul style="list-style-type: none"> <li>○ Roberts Bay to Doris and Madrid North (10 return trips / day estimated for 2019)</li> <li>○ Madrid North to Doris (33 return trips estimated for 2019)</li> <li>○ Windy Lake to Doris (8 return trips/day estimated for 2019)</li> <li>○ Roberts Bay to Boston (0 return trips/day estimated for 2019)</li> <li>○ Boston to Doris (0 return trips/day estimated for 2019)</li> </ul>	

Appendix 2.2-1 of Appendix C-3 of the WMMP Compliance Report provides data for “Total Hauls Doris-Madrid” from May 2019 to December 2019. It is unclear if the reported number for “total hauls” is a single trip or a return trip. In May 2019, there were 1,398 total hauls. The FEIS estimated 10 return trips per day or 310 return trips for the month of May (31 days x 10). Even if 1 “haul” equals 1 return trip, the months of May, June, July, October, November and December exceed the Final Environmental Impact Statement (FEIS) estimates by more than 25% triggering a revised assessment of traffic impacts on wildlife, per Commitment #52.

Appendix 2.2-1 of Appendix C-3 of the Annual Report provides data for “Total Hauls Water Truck (Windy Lake)”. It is unclear if the reported number for “total hauls” is a single trip or a return trip. From January 2019 to December 2019 there were between 257-313 total hauls (Windy Lake). The FEIS estimated 8 return trips per day or 240-248 return trips per month. Even if 1 “haul” equals 1 return trip, each month exceeds the EA estimates and several months exceeded FEIS estimates by over 25% triggering a revised assessment of traffic impacts on wildlife, per Commitment #52.

Reporting from Roberts Bay was generated through review of wildlife camera 18 and was only provided for the months of May, July and December. It is not possible to confirm if FEIS thresholds were triggered based on the data provided.

It is not possible to confirm compliance with the traffic thresholds in the FEIS due to inconsistency and data gaps between Table 4.5-1 of the FEIS and Appendix 2.2-1 of Appendix C-3 of the WMMP Compliance Report. There is an absence of traffic monitoring and management data for Roberts Bay and Doris and Madrid North.

#### **IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

Curatolo and Murphy (1986) found that increased traffic volumes produce a negative stimulus for caribou resulting in decreased crossing frequency. Despite uncertainty regarding traffic effects on wildlife within the local study area, traffic thresholds established in the FEIS are intended to mitigate adverse impacts on all wildlife species. Additional analysis is required if these thresholds are exceeded due to the inherent uncertainty around traffic effects on local wildlife.

#### **RECOMMENDATION(S)**

The GN recommends that the Proponent update Section 2.2 of Appendix C-3 of the WMMP Compliance Report to provide a direct comparison of 2019 traffic monitoring results with FEIS thresholds. Tables 2.2-1 and 2.2-2 of Appendix C-3 of the Annual Report should be revised to cover all five road segments in Table 4.5-1 in the FEIS. These revisions should include text descriptions that provide a clear and transparent comparison to FEIS predictions to clearly establish whether the requirement for a revised assessment of traffic impacts on wildlife has been triggered.

Should this revised comparison show that the FEIS predictions of traffic levels have been exceeded the GN recommends that the Proponent produce a revised assessment of traffic effects on wildlife as per commitment 52.

<b>GN Comment # 07</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Air Traffic
<b>Terms and Conditions</b>	12MN001-Final Hearing Report Commitment #59
<b>References</b>	<ul style="list-style-type: none"> <li>• NIRB Final Hearing Decision for the Phase 2 Hope Bay Belt Project (Page B-14)</li> <li>• Hope Bay Project - 2019 Nunavut Impact Review Board Annual Report (TMAC, April 2020)</li> <li>• Appendix C-3 Hope Bay Project: 2019 Wildlife Mitigation and Monitoring Program Compliance Report (TMAC 2020)</li> <li>• 191231-05MN047 12MN001-2019 Wildlife Mitigation and Monitoring Plan (TMAC, December 2019)</li> <li>• Churchill, B. and B. Holland, 2003, Wildlife and aircraft Operation: assessment of impacts, mitigation and best management practices in the Peace region, Technical Report prepared for the BC Ministry of Water, Land and Air Protection, pp. 77.</li> </ul>
<b>IDENTIFICATION OF ISSUE</b>	
<p>Final Hearing Report Commitment #59 calls for the Wildlife Monitoring and Mitigation Plan (WMMP) to be revised to include the following:</p> <p style="padding-left: 40px;">“Fixed-wing landings/take-offs at Project airstrips will be recorded. These data will be reported in the annual WMMP compliance report. The reported information will be used to verify EIS predictions regarding flight frequency.”</p> <p>Section 2.3 of Appendix C-3 of the WMMP Compliance Report documents helicopter monitoring results but provides no data for fixed-wing aircraft operations to and from the airstrip. The absence of fixed-wing aircraft landing and take-off data does not allow for the verification of FEIS impact predictions.</p>	
<b>IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE</b>	
<p>Fixed-wing aircraft flights associated with Project activities can disturb local wildlife, resulting in avoidance of preferred habitats, disruption of movement, and other adverse effects on various species. Churchill and Holland (2003) found that aircraft can have a variety of impacts on wildlife and their utilization of habitat, including responses that reduce their fitness and ability to survive. Understanding the frequency of fixed-wing aircraft movements is necessary to understand the</p>	

cumulative Project-related disturbance regime and its relationship to impact predictions in the FEIS.

**RECOMMENDATION(S)**

The GN recommends that the Proponent update Appendix C-3 of the WMMP Compliance Report to include a summary of fixed-wing take-offs and landings and compare those results with FEIS predictions regarding flight frequency.

<b>GN Comment # 08</b>	
<b>Department</b>	Culture and Heritage
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Regulatory Compliance Status: Annual Site Status Monitoring Report; and Heritage Resources Surveys
<b>Terms and Conditions</b>	45, 48
<b>References</b>	<p>TMAC Resources. Hope Bay Project 2019 Nunavut Impact Review Board Annual Report</p> <p>TMAC Resources. Hope Bay Project 2019 Nunavut Impact Review Board Annual Report, Appendix C-2.</p>
<b>IDENTIFICATION OF ISSUE</b>	
<p>No issue or Government of Nunavut recommendation has been identified.</p> <p>For the Nunavut Impact Review Board’s information, the Government of Nunavut is reporting on the Proponent’s regulatory compliance as it relates to:</p> <p>1. <u>Annual Site Status Monitoring Report</u></p> <p>In order to assist in monitoring the mitigation and/or protection status of archaeological resources within the proposed development area, the Government of Nunavut Department of Culture and Heritage has requested that the Proponent provides Annual Site Status Monitoring Reports. These reports should be in the form of a series of maps and tables submitted to the Territorial Archaeology Office on February 28 of each year, in advance of the Proponent’s Archaeology Permit Application and Final Report submission. This is a stand-alone report documenting the ongoing status of all archaeological sites within the project development area. It is an evolving document to be submitted directly to the Territorial Archaeology Office. The purpose of the Annual Site Status Monitoring Report is to highlight the progress of the development activities, which assists the Department of Culture and Heritage in monitoring site status and providing appropriate recommendation for the mitigation and/or protection of archeological resources.</p>	

On February 28, 2020 TMAC Resources Inc. provided the Hope Bay Project Archaeological Site Status Report To the End of 2019 to the Department of Culture and Heritage.

2. Heritage Resources - Archaeological and Palaeontological Resources Surveys

As per the Government of Nunavut Department of Culture and Heritage NIRB Terms and Conditions, the completion of an archeological field assessment is required prior to any ground disturbance activities. A qualified archaeologist must apply for a Nunavut Archaeological Permit in order to carry out a field assessment study and a final report must be submitted to the Department of Culture and Heritage on March 31 of the year following the year for which a permit was issued. The final report must contain information relating to the inventory (identification/recording) of archaeological resources and document mitigation activities (protection, excavation, etc.) within the project development area.

In 2019, a Nunavut Archaeology permit was issued to Points West Heritage Consulting Ltd to assess additional components of the project development. In compliance, Final Report: Hope Bay Project, Nunavut: Archaeological Investigation in 2019 - Final Permit Report 2019-22A was 18 Government of Nunavut NIRB File no. 12MN001 submitted to the Department of Culture and Heritage. This document is also included in Appendix C-2 of the 2019 Annual Report.

**IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE**

N/A

**RECOMMENDATION(S)**

N/A