Additional and Final Federal Comments on Approaches Proposed in the Study Plans for the Marten Falls Community Access Road Project – August 16, 2022

Further to the comments provided for each study plan, the comments provided in the table below outline preliminary guidance from the Federal Review Team on approaches proposed by Marten Falls First Nation (the Proponent) in Section 11 of the study plans.[1]

Important: These comments neither replace nor alter in any way the requirements outlined in the Guidelines. If Marten Falls First Nation diverges from, or omits in their Impact Statement, any requirement in the Guidelines, then the change or inaction on the requirement must be described clearly in the draft (and final versions of the) Impact Statement with a fulsome justification. Where the Agency disagrees with the change or inaction, it will require the Proponent to provide the specified information in accordance with the Guidelines.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
Aboriginal and Treaty Rights and Interest Study Plan					
01	**Section 6.2** "…In the Impact Statement, the proponent is required to describe the type of confidential information provided by each Indigenous group without compromising stipulations in the confidentiality agreements and state how that information impacted the project design, baseline data, effects assessment or mitigation measures. The proponent is required to provide evidence to the Agency in the form of a letter from the Indigenous group that provided confidential information confirming that: - the Indigenous group that provided confidential information is satisfied with the way the Impact Statement was informed; - the Indigenous group that provided confidential information is satisfied with the way the issue was solved or addressed…"	MFFN is concerned about the requirement to provide evidence to the Agency in the form of a letter from each participating Indigenous group. As indicated in Section 5.2 of the Study Plan, permission from the Indigenous community will be sought before including IK in the IS / EA Report, regardless of the source of the IK. Sensitive and / or confidential information will be specifically collected through the IK Program to inform the IS / EA Report, and its use and publication will be governed by Indigenous community-specific IK Sharing Agreements. The IK Sharing Agreements will be protected from public or third-party disclosure and will be established between the Proponent and Indigenous communities participating in the IK Program prior to the sharing and use of any sensitive information.	The IK Sharing Agreements will govern how IK and confidential information is used in the IS / EA Report. All Indigenous communities and groups identified in the IEPP will be provided with an opportunity to review the IS / EA Report and provide comment on whether they are satisfied with how the IS / EA Report was informed. MFFN will work with each Indigenous community and group to address any concerns or issues related to the use of confidential information. While MFFN can strive to secure letters from each participating community or group, MFFN cannot guarantee that each community and group will be comfortable providing a letter to the Agency.	Replace with this statement: - "In the Impact Statement, the proponent is required to describe the type of confidential information provided by each Indigenous group without compromising stipulations in the confidentiality agreements and state how that information impacted the project design, baseline data, effects assessment or mitigation measures. The proponent will strive to provide evidence to the Agency in the form of a letter from the Indigenous group that provided confidential information confirming that: - the Indigenous group that provided confidential information is satisfied with the way the Impact Statement was informed; -the Indigenous group that provided confidential information is satisfied with the way the issue was solved or addressed.	The Impact Statement must address all requirements outlined in the Guidelines. If the Proponent is of the opinion that a letter from an Indigenous group cannot be obtained, it should contact the Agency to confirm an alternative approach to meet the requirements of the Guidelines.
02	**Section 25** "…In addition, the Impact Statement must:	MFFN is concerned about the expectation that proponents describe measures and	It is not reasonable to ask that a proponent describe measures and commitments to *ensuring* the sustainability of Indigenous	Replace with this statement: - "describe engagement with potentially affected Indigenous groups and describe	The Impact Statement must describe the outcome of engagement activities with all potentially impacted Indigenous communities listed in the Indigenous

[1] Table 11-2 of the Aboriginal and Treaty Rights and Interest Study Plan and Table 11-3 of the following study plans: Acoustic and Vibration Environment Study Plan, Atmospheric Environment and Greenhouse Gases (GHG) Study Plan, Birds Study Plan, Economic Study Plan, Fish and Fish Habitat Study Plan, Human Health and Community Safety Study Plan, Peatlands Study Plan, Surface Water Study Plan, Vegetation Study Plan, Visual Aesthetics Study Plan, Wildlife Study Plan.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	- describe engagement with potentially affected Indigenous groups and describe measures and commitments to ensuring the sustainability of Indigenous livelihood, traditional use, culture and well-being…"	commitments to ensuring the sustainability of Indigenous livelihood, traditional use, culture and well-being	livelihood, traditional use, culture and well-being given the many factors that influence the sustainability of these lifeways beyond and separate from the Project.	measures and commitments to support the sustainability of Indigenous livelihood, traditional use, culture and well-being."	Engagement and Partnership Plan (IEPP), including all concerns raised by the Indigenous communities and the responses provided by the Proponent (see Section 6 of the Guidelines). The Impact Statement must include a description of the commitments to support the sustainability of Indigenous livelihood, traditional use, culture and well-being in a manner that aligns with the expectations of Section 25 of the Guidelines.
Acoustic and Vibration Environment Study Plan					
03	**Section 7.2** "…With regard to field studies, survey work must be planned to include multiple sampling locations and multiple visits to each location to support all required assessment analyses. Existing data should be considered as a limited augmentation of this new data. See the "Establishing Baseline Conditions" (sections 8.5, 8.9, 8.10, 8.11) in this Tailored Impact Statement Guidelines for recommendations on survey design and methodology. Surveys and analyses should be conducted by qualified experts. Baseline data must be collected in a manner that enables reliable analysis, extrapolations and predictions. Resulting data should be suitable for analyses to estimate pre-project baseline conditions, derive predictions of impacts, and evaluate and compare post-project conditions and at scales of within and across the Project, Local and Regional Assessment areas. Modelling methods, error estimates and assumptions should be reported (as per section 7.1). Modelling and simulations should be used early in the planning phase to estimate the necessary sampling intensity and to quantitatively evaluate the effectiveness of design options. Ethical guidelines and relevant cultural	Descriptions of specific data sources, data collection, sampling, survey and research protocols and methods followed for each baseline environmental condition will be provided in the IA/EA and are summarized in this Study Plan. The acoustic field program was only one session (late fall 2019) in Marten Falls covering two (2) locations for long-term monitoring. There are no additional field monitoring programs proposed as part of the Study Plan.	Sufficient field information is available through historic and/or recent field investigations to understand annual and seasonal variation. We have provided information regarding anticipated seasonal changes in noise levels in the project area in the Study Plan.	Reword the requirement: With regard to field studies, survey work must consider including multiple sampling locations and/or multiple visits to each location to support all required assessment analyses. Applicability of using existing data should be described in the IS report. See the "Establishing Baseline Conditions" (sections 8.5, 8.9, 8.10, 8.11) in this Tailored Impact Statement Guidelines for recommendations on survey design and methodology. Surveys and analyses should be conducted by qualified experts. Baseline data must be collected in a manner that enables reliable analysis, extrapolations and predictions. Resulting data should be suitable for analyses to estimate pre-project baseline conditions, derive predictions of impacts, and evaluate and compare post-project conditions and at scales of within and across the Project, Local and Regional Assessment areas. Modelling methods, error estimates and assumptions should be reported (as per Section 7.1). Justification should be provided to estimate the necessary sampling intensity and to quantitatively evaluate the effectiveness of design options. Ethical guidelines and relevant cultural protocols governing research, data collection and confidentiality must be adhered to.	The Guidelines aim to ensure that relevant data are collected in the various study areas, to understand the current state of a valued component. If data are older, collected elsewhere, or using an inappropriate sampling protocol, then this data is less useful and could even be irrelevant to the question posed. Ensure that the Impact Statement includes: 1) baseline acoustic data, including the desktop/historic data; 2) the description of the data sets (i.e. source, date and location data was collected); 3) a demonstration of applicability of existing data to the Project; and 4) the description of any assumptions and limitations associated with the data sets. Refer also to the feedback provided in the document: "Comments on Marten Falls Community Access Road Project (Project) revised Acoustic Environment Study Plan, from January 7, 2022, in particular comment AC-05.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	protocols governing research, data collection and confidentiality must be adhered to…"				
04	**Section 8.1** "…The Impact Statement must… for the aquatic environment, provide current underwater soundscape and vibration descriptions of the study area and at the project site from various sources based on acoustic measurements. Provide information on vibration and sound sources, geographic extent and spatial and temporal variations within the water column…"	The Acoustic Environment Study Plan will assess acoustic impacts on human receptors only. Acoustic impacts and existing conditions related to underwater environments will not be determined or measured.	Federal and Provincial noise guidelines have been developed based on research into human response to noise exposure. The noise guidelines do not address whether these criteria are applicable to wildlife, nor do the guidelines provide separate criteria for wildlife assessment. We are not aware of any underwater noise or vibration thresholds that would be applicable for this project.	Remove this requirement	Refer to the feedback provided in the document: "Comments on Marten Falls Community Access Road Project revised Acoustic Environment Study Plan, from January 7, 2022, in particular comment AC-12. As stated in comment AC-12 of the revised Acoustic Environment Study Plan, information on design and installation techniques for each watercourse crossing will be required during the permitting phase of the Project. Current underwater soundscape and vibration descriptions are likely not necessary for the Impact Statement, unless anticipated construction methodologies have the potential to generate underwater noise and/or vibration levels that may result in harmful effects to fish (e.g. blasting along the route near fish-bearing waterbodies[2]). Provide in the Impact Statement rationale for the approach followed, taking into account the feedback from the Federal Review Team.
Atmospheric Environment and Greenhouse Gases (GHG) Study Plan					
05	**Section 7.2** "…With regard to field studies, survey work must be planned to include multiple sampling locations and multiple visits to each location to support all required assessment analyses…"	The Atmospherics and Greenhouse Study Plan does not include multiple locations for survey work	Within the LSA the community of Marten Falls is the primary area of human settlement and is the only location with sufficient power and serviceability access to support air quality monitoring equipment. The measured values in the community are a reasonably conservative characterization of baseline ambient air quality across the LSA. Concentrations within Marten Falls are expected to be elevated in comparison with the remainder of the LSA due to the presence of sustained human activity (e.g., power generation, airport). Therefore, using background data collected from within Marten Falls is expected to result in a conservative characterization of baseline conditions	TISG should be updated to remove the requirement to include multiple sampling locations for the Atmospherics and Greenhouse Gases Study Plan.	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project Atmospheric Environment and GHG Study Plan" from December 16, 2021, in particular AQ-01. Include in the Impact Statement a description on how estimates of baseline air quality data could introduce uncertainty in the human health risk assessment, particularly for non-threshold contaminants. For example, health risks should consider incremental exposure compared to actual baseline data, and mitigation and follow-up monitoring should be based on actual baseline data.
06	**Section 8.2** "…The Impact Statement must:	Parameters not directly used within dispersion modelling will not be included within the	The potential for extreme weather events and pan evaporation measurements are not relevant to the air quality study and will not	TISG should be updated to remove the requirement to include extreme weather events, and pan evaporation	Provide in the Impact Statement rationale for the approach followed.

[2] Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters: https://publications.gc.ca/collections/Collection/Fs97-6-2107E.pdf

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	- provide hourly meteorological data (wind speed and direction, air temperature, net radiation, turbulence and precipitation data) from a minimum of one year to support dispersion modelling that captures the normal variability of meteorological conditions; and - provide pan evaporation measurements or estimates of monthly (or daily) evapotranspiration…"	Atmospheric and GHG Study Plan.	be provided. These values are not included within dispersion modelling.	measurements, as well as parameters not directly used within dispersion modelling.	
07	**Section 14.1** "…provide an assessment of the Project's emissions potentially contributing or adding to existing ground ozone levels…"	The potential for the Project to contribute to ground-level ozone will be qualitatively assessed for both the construction and operation phases. Potential for the generation of ground-level ozone will be evaluated based on the predicted increase in NOx and Volatile Organic Compounds around the Project area. Ozone formation will not be quantitatively assessed as the magnitude of effects is expected to be negligible.	In the Ministry of Transportation's Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects, the MTO states that, with respect to the formation of ground-level ozone, "ground-level ozone O3 is typically formed many kilometres downwind of the source of its precursors" and "concentrations are usually depressed around highways since NO emissions react relatively rapidly to convert O3 into oxygen gas." The MTO also states that "For major roads, the collective experience of the scientific community suggests that the affected immediate vicinity is limited to the area within approximately 500 metres of the road". Based on this, the contribution of the Project to ground-level ozone is likely to be minor in comparison to the near-field concentration of precursor species (i.e., NOx)	TISG should be updated to remove the requirement to evaluate ground level ozone	In the Impact Statement, approximate existing O_3 levels and assess ground-level ozone generation due to contributions from the Project's precursors, to support any assertions that formation of O_3 would be negligible. Provide in the Impact Statement rationale for the approach followed, taking into account the feedback from the Federal Review Team. Note that the Justification/Rationale provided to date without further supporting evidence would not be deemed sufficient.
08	**Section 14.1** "…The Impact Statement must… provide details of all air quality model configuration, including meteorology, land use, gridded and sensitive receptors and chemical and physical transformation settings…"	The air quality modelling will be described in detail within the Impact Statement. No chemical or physical transformation will be included in the modelling as the dispersion of emissions are expected to be generally low-level and near-field with respect to the Project.	The Study Plan intended to communicate that the formation of secondary contaminants through chemical and physical transformation is expected to be low-level based on the predicted roadway volumes. While some formation of secondary particulate is expected, the Project is in a pristine setting without large industrial or transportation sources. Secondary formation is dependent on the presence of precursor species which will be limited because of the pristine nature of the environment. Based on a projected AADT of 400 vehicles per day, the emissions of precursor species are	TISG should be updated to remove the requirement to evaluate secondary transformation	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project Atmospheric Environment and GHG Study Plan" from December 16, 2021, in particular AQ-15. Include in the Impact Statement a qualitative discussion as well as a detailed and clear rationale for the approach followed, taking into account the feedback from the Federal Review Team.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
			expected to be relatively dilute in the atmosphere. Additionally, the formation of secondary contaminants is not instantaneous, and occurs downwind of the source at which point the initial precursor contaminants have begun to disperse. In consideration of these factors, it is expected that assessing the near-road impacts of primary contaminants will result in a reasonably conservative Air Quality Assessment One exception to the above is the conversion of NO to NO2. It will be conservatively assumed that 100% of all NO emitted from the Project will be converted to NO2		
09	**Section 14.1** "…The Impact Statement must… assess the potential for emissions from the Project to contribute to acid deposition and exceedances of critical loads for terrestrial and aquatic ecosystems…"	The potential for the Project to contribute to acid deposition will be qualitatively assessed for both the construction and operation phases. Potential for acid formation will be evaluated based on the predicted increase in NOx and SOx to the airshed and subsequent potential nitrate and sulphate formation. Acid deposition will not be quantitatively assessed as the magnitude of effects is expected to be negligible	Acid deposition is a regional effect, meaning that near-roadway concentrations are not as important as airshed concentrations. It is estimated that the Project will partially displace air travel with road vehicle traffic. The impact of this modal shift on the contribution of NOx and SO2 to the airshed will be assessed and a qualitative statement regarding the implications for acid deposition will be provided	TISG should be updated to remove requirement for quantitative analysis of acid deposition	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project Atmospheric Environment and GHG Study Plan" from December 16, 2021, in particular AQ-16. Describe in the Impact Statement how baseline levels of NO_x and SO_2, support any assertions that acid deposition would not be an issue based on the measured concentrations. Provide in the Impact Statement rationale for the approach followed, taking into account the feedback from the Federal Review Team. Note that several participants raised concerns with acid rain during the planning phase.[3]
10	**Section 14.1** "…The Impact Statement must… provide emission rates for all project and regional sources within the study area, including emission factors (with methodology, uncertainty assessment and references) and all assumptions and related parameters that would enable calculations to be reproduced…"	Baseline air quality monitoring will be used to represent the Project Area and is assumed to include in the effect of any relevant regional sources. Therefore, regional source emissions will not be quantified or included in the dispersion modelling	The majority of sources are expected to be personal vehicles, residential heating, and other miscellaneous activities. There are no significant sources (e.g., large industries) which would contribute to emissions in the Study Area. As described earlier, a conservative Air Quality Assessment is one which describes the reasonable worst-case impact of the Project. Background concentrations within Marten Falls are expected to be higher than the rest of the Study Area. Therefore, using measured concentrations in the Study Area	TISG updated to remove requirement of providing emission rates for all projects and regional sources	The issue was discussed during the technical meeting on Atmospheric Environment of September 18, 2020. Include in the Impact Statement emission rates for all project and regional sources within the regional study area, including emission factors (with methodology, uncertainty assessment and references), and all assumptions and related parameters that would enable calculations to be reproduced. Future regional emissions caused by reasonably foreseeable projects during the life span of the Project should be estimated for the Atmospheric Environnement

[3] Comments provided to the Agency are available on the Canadian Impact Assessment Registry Internet site at: https://iaac-aeic.gc.ca/050/evaluations/proj/80184/contributions

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
			will result in a conservative Air Quality Assessment.		cumulative effects assessment. Refer to Section 22 of the Guidelines for requirements regarding the cumulative effects assessment.
11	**Section 14.1** The Impact Statement must provide a comparison of predicted air quality concentration against the Canadian Ambient Air Quality Standards (CAAQS) for fine particulate matter (PM2.5), sulphur dioxide (SO2) and nitrogen dioxide (NO2), and ozone (O3)."	Ozone is not a primary contaminant related to the Project	Considering the projected roadway volumes (200-300 vehicles per day), an assessment of the formation of ozone is not warranted. Ozone formation will be qualitatively assessed	TISG should be updated to remove requirement to provide comparison of ozone (O3) against CAAQS.	The projected roadway volumes (200-300 vehicles per day) differs from the average daily traffic amount described in the Detailed Project Description. The Annual Average Daily Traffic must reflect the highest annual average daily traffic amount of vehicles, including vehicles associated with future reasonably foreseeable projects, as described in Section 22 of the Guidelines, during the lifespan of the Project. Refer also to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project Atmospheric Environment and GHG Study Plan" from December 16, 2021, in particular GC-08 and AQ-14. In the Impact Statement, approximate existing O_3 levels and assess ground-level ozone generation due to contributions from the Project's precursors (as described in comment 07) and compare it against the Canadian Ambient Air Quality Standards (CAAQS). Provide in the Impact Statement rationale for the approach followed, taking into account the feedback from the Federal Review Team. Note that the rationales provided to date, without further supporting evidence, would not be deemed sufficient.
12	**Section 14.1** "…provide details of the achievement of emission standards for all mobile and stationary engines used in the Project…"	The Project is a public roadway. Ongoing operation of the roadway is not controlled by the project team. The project team cannot guarantee the types of vehicles that drive on the road.	The Project is a public roadway. Ongoing operation of the roadway is not controlled by the MFFN CAR Project Team. The MFFN CAR Project Team cannot guarantee the types of vehicles that drive on the road.	TISG should be updated to remove requirement to provide details of the achievement of emission standards for all mobile and stationary engines used in the Project.	Provide in the Impact Statement a reasonable estimate of the emissions from mobile and stationary engines used in the Project, along with the engine emissions standards. The estimate must include construction, operations and maintenance during the life span of the Project, including from reasonable foreseeable projects, such as mining and industry activities in the Ring of Fire area. Describe the assumptions made to determine the emission estimates and assess the associated effects. Refer also to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project Atmospheric Environment and GHG Study Plan" from December 16, 2021, in particular AQ-12.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
13	**Section 14.1** "…describe the locations and characteristics of the most sensitive receptors including species at risk and differential effects for sensitive receptors…"	Identified receptor locations will be described in the Impact Statement. Differential effects will not be considered in the Atmospheric Environment assessment. Results from the Atmospheric Environment will be used by individual disciplines in assessing impacts to receptors	The relevant criteria (AAQC, CAAQS) have been developed in consideration of effects at any applicable receptor type	TISG should be updated to remove requirement of assessing differential effects for sensitive receptors.	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project Atmospheric Environment and GHG Study Plan" from December 16, 2021, in particular AQ-19. Include in the Impact Statement an effects assessment featuring, at least qualitatively, how the most sensitive and vulnerable receptors (including, but not limited to, most sensitive species and potential land users in the local study area from the Indigenous communities listed in the IEPP) may be impacted by adverse effects.
14	**Section 15.5** "…describe how the Project could impact global GHG emissions, including if the Project is expected to displace emissions internationally. The Impact Statement should describe how the Project is likely to result in global emission reductions. For example, a Project that enables the displacement of high-emitting energy abroad with lower emitting energy produced in Canada could be considered as having a positive impact..."	The Project will not displace international GHG emissions. GHG emissions will be assessed against provincial, federal and sector GHG totals.	Due to the size and nature of the Project the Project is not expected to displace international GHG emissions.	TISG should be updated to remove requirement to describe impact on global GHG emissions.	Include in the Impact Statement information to meet requirements of the Strategic Assessment of Climate Change. GHG emissions cannot be contained within jurisdictional boundaries, therefore GHG emissions shall be considered a transboundary effect. Their global contribution should be taken into consideration. Provide in the Impact Statement rationale for the approach followed, taking into account the feedback from the Federal Review Team. No detailed and clear rationale was provided to justify why the requirements to describe the Project's impacts on global GHG emissions should be removed.
Birds Study Plan					
15	**Section 8.9** Design suggestions for Project Study Area and Local Study Area scales: Use a standardized design approach during survey planning. The resulting design details will serve as the basis to develop alternative designs, evaluate options for particular design details, and to identify potential efficiencies. The approaches and tools suggested elsewhere in this document (e.g., land cover analysis, data simulations) should be considered during the planning phase. The following should be considered as inputs to design planning and evaluation; − transects and sites: • transects should be spaced every 2 kilometres along the route, oriented perpendicular to the route, and with the	The use of transects is not a requirement, but a recommendation as outlined in the TISG. A GRTS study design was used for initial sampling in the PDA and LSA and is planned for additional sampling to maintain a standardized design. This selection was based on comparisons of data simulations with alternative study designs including the TISG recommended benchmark study design of transects. The use of transects is not a requirement, but a recommendation as outlined in the TISG. A GRTS study design will be used for sample site selection with consideration of	A GRTS study design was used for initial sampling in the PDA and LSA following consultations with ECCC rather than the TISG recommended study design of transects. As outlined in the TISG, simulation modelling was used to provide evidence that this sampling strategy has not resulted in the introduction of bias. Model simulations of data collected during initial sampling determined an "optimal" sample size to fil data gaps while reducing variances and producing non-biased estimates representing all land cover types. The GRTS study design was the preferred option over a simple random study design and the TISG benchmark study design for selecting additional sampling based on the lower variance and mean bias at the "optimal" sample size. A land cover	Suggest revising this requirement to read: − 'design suggestions for Project Study Area and Local Study Area scales: Use a standardized design approach during survey planning. The resulting design details will serve as the basis to develop alternative designs, evaluate options for particular design details, and to identify potential efficiencies. The approaches and tools suggested elsewhere in this document (e.g., land cover analysis, data simulations) should be considered during the planning phase. The following suggested survey design should be considered as inputs to design planning and evaluation; − transects and sites: • transects should be spaced every 2 kilometres along the route, oriented perpendicular to the route, and with the	Section 8.9 of the Guidelines indicates that the transect design is meant to serve as a tool of baseline survey design, against which alternative designs are to be compared. A GRTS design, if properly implemented, would align with the recommended spatially balanced and randomly selected sample locations, as required by the Guidelines. The proposed GRTS design should be evaluated to ensure that design elements (particularly site accessibility) do not introduce bias; the transect design was offered as a benchmark against which to evaluate the bias risk of alternative designs. Include in the Impact Statement a detailed and clear rationale for using the GRTS design as an alternative to transect survey design, taking into account the feedback from the Federal Review Team. Demonstrate in the Impact Statement that the GRTS design, if utilized, was evaluated to ensure that design elements (particularly site accessibility) did not introduce bias.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	mid-point of each transect located on the centreline of the route. A maximum length of 5 kilometres is likely suitable for sampling most habitat types, including those associated with eskers and similar linear features in alignment with the route. Transect lengths less than 5 kilometres may be suitable but should be justified with respect to an analysis of land cover that demonstrates no further change in land cover composition with increasing distance from the intersection of route and transect mid - point; • Survey sites along transect should be located as follows: 1 site on centreline of route, sites spaced every 250 meters up to 1 kilometre, then spaced every 500 meters to end of transect. A 5-kilometre transect should have 15 survey sites; • Every 100 kilometres of route should contain 50 transects. Of these, 20 transects should be sampled using Automated Acoustic Recorders (ARU) and 30 transects sampled by human observers (Point Count Transects); and	access and differences in habitat quality rather than the TISG recommendation of transects. The same ratio of ARUs to point counts will be applied to the bird study design as described in the TISG Section 8.9, Page 52. The use of transects is not a requirement, but a recommendation as outlined in the TISG. A GRTS study design will be used for sample site selection with consideration of access and differences in habitat quality. As outlined in the TISG, simulation modelling was used to provide evidence that this sampling strategy has not resulted in the introduction in bias. The same ratio of ARUs to point counts will be applied to the bird study design as described in the TISG Section 8.9, Page 52.	analysis was used in planning to expand the LSA to 6 km. Study design will not implement point count survey sites along 5 km-long transects for the following reasons: − The number of survey point using this approach (estimated 2,500) goes beyond what is needed for precise and non-biased bird modelling as demonstrated in simulation modelling. Transects at this density are not reasonable / feasible given limited accessibility to the landscape (e.g., dense forest, blow down, water features, etc.) and for field staff health and safety considerations, − Evenly spaced transects conflicts with randomized selection of habitats or if specific (i.e., rare habitats are to be targeted). − A GRTS study design will be used for sample site selection with consideration of access and differences in habitat quality. Model simulations have been competed to demonstrate the optimal sampling to fill data gaps while reducing variances and producing non-biased estimates representing all land cover types. Study design will not implement point/ARU transects for the following reasons: − Transects are provided as a recommendation and not requirement, serving as a benchmark study design. A GRTS study design will be used for sample site selection with consideration of access and differences in habitat quality. As per the TISG, model simulations have been competed to demonstrate the optimal sampling for the GRTS study design to fill	mid-point of each transect located on the centreline of the route. A maximum length of 5 kilometres is likely suitable for sampling most habitat types, including those associated with eskers and similar linear features in alignment with the route. Transect lengths less than 5 kilometres may be suitable but should be justified with respect to an analysis of land cover that demonstrates no further change in land cover composition with increasing distance from the intersection of route and transect mid- point; • Survey sites along transect should be located as follows: 1 site on centreline of route, sites spaced every 250 meters up to 1 kilometre, then spaced every 500 meters to end of transect. A 5-kilometre transect should have 15 survey sites; • Every 100 kilometres of route should contain 50 transects. Of these, 20 transects should be sampled using Automated Acoustic Recorders (ARU) and 30 transects sampled by human observers (Point Count Transects); and	

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
			data gaps while reducing variances and producing non-biased estimates representing all land cover types.		
16	**Section 8.9** "…Project components other than the route itself should be sampled. Such components that are linear (e.g., access or service roads) should be surveyed using transects as above. Non-linear components (e.g., aggregate pits) should be surveyed using a grid of sites spaced 250 metres apart and be sufficient to cover the Project component, plus a maximum 3-kilometre buffer. As with transect lengths, modification of buffer width to a minimum of 500 metres may be justifiable if land cover analysis demonstrates no further change in land cover classification with increasing buffer width..."	The requirement cannot be addressed at this time as: Project components other than the route itself are unknown. However, the PDA and LSA will be adjusted accordingly as the Project design progresses. The use of transects is not a requirement, but a recommendation as outlined in the TISG. A GRTS study design will be used for sample site selection with consideration of access and differences in habitat quality rather than the TISG recommendation of transects.	Study design will not implement point/ARU transects for the following reasons: - Transects are provided as a recommendation and not requirement, serving as a benchmark study design. A GRTS study design will be used for sample site selection with consideration of access and differences in habitat quality. As per the TISG, model simulations have been competed to demonstrate the optimal sampling for the GRTS study design to fill data gaps while reducing variances and producing non-biased estimates representing all land cover types.	Suggest revising this requirement to read: Project components other than the route itself should be sampled. Such components should be sampled following a statistically robust survey design which is comparable to the suggested transect method and be sufficient to cover the Project component, plus a maximum 3-kilometre buffer. modification of buffer width to a minimum of 500 metres may be justifiable if land cover analysis demonstrates no further change in land cover classification with increasing buffer width.	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project revised Wildlife and Birds Study Plans" from August 11, 2021, including comment WH-01. Baseline surveys at locations that would be used as quarries or other project components are required to ensure a proper assessment of baseline conditions. Section 8.9 of the Guidelines indicates that the transect design is meant to serve as a tool of baseline survey design, against which alternative designs are to be compared. A GRTS design, if properly implemented, would align with the recommended spatially balanced and randomly selected sample locations, as required in Section 8 for the Guidelines. The proposed GRTS design should be evaluated to ensure that design elements (particularly site accessibility) do not introduce bias; the transect design was offered as a benchmark against which to evaluate the bias risk of alternative designs. Include in the Impact Statement the distance to infrastructure considered when conducting baselines surveys. Many animals react negatively to infrastructure at a given distance (zone of influence), and this would need to be captured by the sampling protocol. Include in the Impact Statement a detailed and clear rationale for using the GRTS design as an alternative to transect survey design, taking into account the feedback from the Federal Review Team. Demonstrate in the Impact Statement that the GRTS design, if utilized, was evaluated to ensure that design elements (particularly site accessibility) did not introduce bias.
17	**Section 8.9** "…Regarding "bird sampling": 1. ARU Transects: Deployment of ARUs should be used to inform estimates of site use by birds across a broad range of dates (including seasons) and times of day. Since ARUs capture bird movements across dates and times, sampling on ARU	ARUs will follow this protocol with the exception of a sampling period of June 1 to July 10 for more accurate breeding recordings in northern Ontario and a reduced sampling period either during early winter (December 1 to December 31) or late winter (March 1 to March	Due to minimum temperature limitations of ARUs, winter ARU deployment will be for one month at the beginning or end of the winter season as defined the TISG. Study design will not implement point count survey sites along 5 km-long transects for the following reasons: − The number of survey point using this approach (estimated 2,500) goes beyond	Suggest revising this requirement to read: − Regarding "bird sampling": 1. ARU Placement: Deployment of ARUs should be used to inform estimates of site use by birds across a broad range of dates (including seasons) and times of day. Since ARUs capture bird movements across dates and times, sampling on ARU	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project (Project) revised Wildlife and Birds Study Plans" from August 11, 2021, including comment WH-01. Section 8.9 of the Guidelines indicates that the transect design is meant to serve as a tool of baseline survey design, against which alternative designs are to be compared. A

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	Transects should be conducted on a subset of sites within transects. This subset should include the route centreline site, with the remaining sites at 500-metre spacing out to the transect endpoint: a) Within each sampling year, ARUs should be deployed at sites as long as possible, with a minimum period of May 1 through July 10 (Breeding Recordings). Use deployments that maximize full use of battery and sound card capacity; b) A subset of at least 50% of the ARU sites should have ARUs deployed to align with periods during which sites are used by birds in fall migration (August 1 through September 30) and during the winter (December 1 though March 31) (i.e., collectively, Fall/Winter Recordings). These fall and winter sites may be a subset of either entire ARU transects or sites along transects but land cover analysis should be used to ensure the subset is an unbiased sample of the population of ARU sites; c) ARU deployments for Breeding Recordings should be programmed to record daily or every 2nd day, with a morning and an evening schedule. Recording should occur in two phases to avoid single recordings spanning two dates. Phase 1 would start at 00:00 (HH:MM), with a schedule of 3-minutes On and 12-minutes Off until 5 hours beyond local sunrise (i.e., SR+5hr). Phase 2 would start 30 minutes before local sunset, with a schedule of 3-minutes On and 12-minutes Off until 23:56 (HH:MM); d) ARUs should be set to record using a sampling rate of 44.1 kHz…"	31) and not sampling within transects	what is needed for precise and non-biased bird modelling as demonstrated in simulation modelling. Transects at this density are not reasonable / feasible given limited accessibility to the landscape (e.g., dense forest, blow down, water features, etc.) and for field staff health and safety considerations, − Evenly spaced transects conflicts with randomized selection of habitats or if specific (i.e., rare habitats are to be targeted). − A GRTS study design will be used for sample site selection with consideration of access and differences in habitat quality. Model simulations have been competed to demonstrate the optimal sampling to fill data gaps while reducing variances and producing non-biased estimates representing all land cover types.	locations should be conducted on a subset of sites a) Within each sampling year, ARUs should be deployed at sites as long as possible, with a minimum period of June 1 through July 10 (Breeding Recordings). Use deployments that maximize full use of battery and sound card capacity; b) A subset of at least 50% of the ARU sites should have ARUs deployed to align with periods during which sites are used by birds in fall migration (August 1 through September 30) and during the winter (December 1 though March 31) (i.e., collectively, Fall/Winter Recordings). These fall and winter sites should use statistical methods to ensure the subset is an unbiased sample of the population of ARU sites; c) ARU deployments for Breeding Recordings should be programmed to record daily or every 2nd day, with a morning and an evening schedule. Recording should occur in two phases to avoid single recordings spanning two dates. Phase 1 would start at 00:00 (HH:MM), with a schedule of 3-minutes On and 12-minutes Off until 5 hours beyond local sunrise (i.e., SR+5hr). Phase 2 would start 30 minutes before local sunset, with a schedule of 3-minutes On and 12-minutes Off until 23:56 (HH:MM); d) ARUs should be set to record using a sampling rate of 44.1 kHz."	GRTS design, if properly implemented, would align with the recommended spatially balanced and randomly selected sample locations, as required in Section 8 for the Guidelines. The proposed GRTS design should be evaluated to ensure that design elements (particularly site accessibility) do not introduce bias; the transect design was offered as a benchmark against which to evaluate the bias risk of alternative designs. Include in the Impact Statement a detailed and clear rationale for using the GRTS design as an alternative to transect survey design, taking into account the feedback from the Federal Review Team. Demonstrate in the Impact Statement that the GRTS design, if utilized, was evaluated to ensure that design elements (particularly site accessibility) did not introduce bias. Section 8.9 of the Guidelines requires, within each sampling year, ARUs deployed at sites for as long as possible, with a minimum period of May 1 through July 10 to ensure early season breeding birds are captured in the analysis. A June 1 start is more likely to miss detection of some species, leading to an uncertain or even incorrect conclusion of their absence. This approach would not be deemed satisfactory. Demonstrate in the Impact Statement that the resulting data from recordings was screened prior to analysis on a species-by-species basis, to ensure individual species' breeding and migratory phenology were taken into account. The proposed revision regarding the evaluation of fall and winter sites is unacceptable as it may lead to ambiguity. Evaluation should be conducted with respect to land cover, ensuring the subset is an unbiased sample of the population of ARU sites.
18	**Section 8.9** "…Acoustic file and data analysis: − acoustic files should be analyzed by interpreters skilled in identifying birds	The requirement to use a specific software for analysis should be removed as a requirement.	Acoustic storage and analysis software packages are continuously improved and updated. The technical team will select the best available software, appropriate for the	Suggest revising this requirement to read: − Acoustic file and data analysis: • acoustic files should be analyzed by interpreters skilled in identifying birds by	Using the Wildtrax interface is strongly recommended as it is a platform that enables transparent and verifiable detections and interpretations, and enables data to be retained as private, as well as, shared per required by Sections 8.9 and

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	by sound and familiar with bird communities of the region sampled. Interpretation of acoustic files should be done using the Wildtrax interface (https://www.wildtrax.ca/home), with each individual detected recorded as a data point and referenced to the first 1-minute interval it was detected: • Prior to interpretation, acoustic files suitable for analysis should be identified by examining spectrograms and listening to a short segment of the file. Files with substantial wind, rain or other noise (e.g., frogs) should be excluded..."		analysis to be conducted, at the time when analysis is being conducted. The software used will be described in the IA/EA.	sound and familiar with bird communities of the region sampled. Interpretation of acoustic files should be done using the Wildtrax interface (https://www.wildtrax.ca/home), or other suitable software with each individual detected recorded as a data point and referenced to the first 1-minute interval it was detected: o Prior to interpretation, acoustic files suitable for analysis should be identified by examining spectrograms and listening to a short segment of the file. Files with substantial wind, rain or other noise (e.g., frogs) should be excluded.	26.1 of the Guidelines. Alternative software or platforms would be acceptable if they enable transparent and verifiable detections and interpretations, and sharing data required by Sections 8.9 and 26.1 of the Guidelines. Include in the Impact Statement a detailed and clear rationale for using a software different from Wildtrax. If an alternative software or platform is used, demonstrate in the Impact Statement that it would provide all of the functionalities of Wildtrax.
19	**Section 15.2** "Account for changes in detection pre- and post-project construction. For instance, roads allow for greater detection distances and therefore any estimates of abundance or presence need to account for differential detectability; describe the effects caused by the new habitat types created in the project area by clearing vegetation. The new habitats created may attract migratory birds, which were not present before (such as the Eastern Whip-poor-will or the Common Nighthawk). Describe how these species at risk may be impacted by the project."	Post-construction survey requirement will be determined based on the results of the IA / EA, and changes in detectability will be accounted for in the IS / EA Report, if impacts are determined.	Update to include this as a request – rather than a requirement as planned pre-construction surveys will be developed during the IA / EA.	"If applicable: Account for changes in detection pre- and post-project construction. For instance, roads allow for greater detection distances and therefore any estimates of abundance or presence need to account for differential detectability; describe the effects caused by the new habitat types created in the project area by clearing vegetation."	The purpose of the requirement to take into account pre- and post-construction detection is to ensure that any potential differences from predicted impacts are not erroneously attributed to either the accuracy of the predictions or the effectiveness of mitigation measures. The rationale for not meeting pre and post-construction survey requirements is not clear. In the Impact Statement, include information about detection distances and other factors that could influence detectability during the pre-construction (baseline) data collection, so that comparisons can be made to detection distances and other factors that could influence detectability during post-construction surveys. In the Impact Statement, include predictive modeling to assess effects. If, in the future the Project is permitted to proceed, follow-up modeling could be done to evaluate the accuracy of the effects assessment and/or the effectiveness of mitigation measures.
Economic Study Plan					
20	**Section 9** "…Examples of social determinants of health that may be relevant to the Project are provided for consideration: − income (average), poverty and income inequality, disaggregated by sex and gender…"			Economic baseline information to inform economic and material determinants of health will be collected consistent with GBA+ principles. Data will be disaggregated by sex and age but not gender as Statistics Canada does not provide information disaggregated by gender	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community Access Road Project (Project) Economic Study Plans" from October 25, 2021, including comments GC-06 and EC-34. Include in the Impact Statement a detailed rationale that explains the extent and limitations with data disaggregation in the effects assessment.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
					Analyze secondary data collection sources in order to address gaps in data collection. Note that the 2021 Census of Population collected information on gender. Release of this data has started in 2022 and the latest data on the relevant topic should be used, if available. If Statistics Canada or other sources of secondary data (e.g., Northern Policy Institute, First Nations Information Governance Centre, Institute for Clinical Evaluative Sciences) do not disaggregate data based on gender, then peer-reviewed, published academic research should be consulted as a source for community labour and employment information.
21	**Section 11** "…Overall economy: − income leakages from the communities to capture services that are being delivered outside of the community…"			Income leakages will be considered qualitatively in the baseline based on primary data collected on economic activities and available secondary source data	A qualitative analysis of income leakages is deemed appropriate for the scale of this assessment, however, it would be preferable to quantify the leakage. Consider consulting third-party sources for both quantitative and qualitative survey data. Include in the Impact Statement the detailed rationale that explains limitations related to estimating income leakages in the effects assessment. Analyze secondary data collection sources and best practices in analyzing economic impacts in environmental assessment in order to address any identified gaps in data and methodologies, including Dr. Thomas Gunton's work for the Social Sciences and Humanities Research Council.[4]
22	**Section 11** "…Labour market: − known barriers and opportunities to employment for underrepresented groups, proportion of time spent on unpaid domestic and care work, by age, sex and location, and gender division of labour…"			Barriers and labour divisions will be described qualitatively. Information on domestic labour will be described as secondary sources allow and questions to that effect may be included in primary data collection. However, census-level data will not be reported as the data are not available	Analyze secondary data collection sources in order to address gaps in data collection. Note that the 2021 Census of Population collected information on gender. Release of this data has started in 2022 and the latest data on the relevant topic should be used, if available. If Statistics Canada or other sources of secondary data (e.g., Northern Policy Institute, First Nations Information Governance Centre, Institute for Clinical Evaluative Sciences, General Social Survey - Time Use) do not disaggregate data based on gender, then peer-reviewed, published academic research should be consulted as a source for community labour and employment information. Include in the Impact Statement a detailed and clear rationale for describing barriers and labour divisions qualitatively.
23	**Section 11** "….The information provided must:			These principles will inform both primary and secondary data collection to support	Refer to the feedback provided in the document: "Comments from the Federal Review Team on Marten Falls Community

[4] Source: https://www.sshrc-crsh.gc.ca/society-societe/community-communite/ifca-iac/evidence_briefs-donnees_probantes/environmental_and_impact_assessments-evaluations_environnementales_et_impacts/gunton-eng.aspx

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	- describe how community and Indigenous knowledge from related populations, including input from diverse groups, was used in establishing baseline conditions; - describe baseline economic conditions using disaggregated data and gender-statistics for diverse subgroups within the community to support GBA+; - conduct intersectional gender analysis to examine differences in the status of diverse subgroups (e.g., women, youth, and elders) and their differential access to resources, opportunities and services; and describe any relevant indicators…"			the Economic Assessment. Further, the Proponent will document baseline data consistent with these principles. The exception is data will not be disaggregated by gender as Statistics Canada does not disaggregate based on gender. Data disaggregated based on sex will be included	Access Road Project Economic Study Plans" from October 25, 2021, including comments GC-06 and EC-34. Analyze secondary data collection sources in order to address gaps in data collection. Note that the 2021 Census of Population collected information on gender. Release of this data has started in 2022 and the latest data on the relevant topic should be used, if available. If Statistics Canada or other sources of secondary data (e.g., Northern Policy Institute, First Nations Information Governance Centre, Institute for Clinical Evaluative Sciences) do not disaggregate data based on gender, then peer-reviewed, published academic research should be consulted as a source for community labour and employment information. Include in the Impact Statement the detailed rationale that explains the extent and limitations with data disaggregation in the effects assessment.
Fish and Fish Habitat Study Plan					
24	**Section 8.8** "…The Impact Statement must… provide a characterization of fish (as defined in subsection 2(1) of the *Fisheries Act)* and other aquatic species on the basis of resident and migratory species, food webs and trophic levels, structural and functional linkages, life history and population dynamics, such as dispersion, fertility, recruitment, mortality rates, re-colonization, age structure, sex ratios, population regulation, stability, distribution (communities, stocks, subpopulations, metapopulations), movements, migratory patterns, routes and preferred corridor, seasonal and annual trends in abundance, sensitive habitats and periods in relation to the study area, behavioural habitat selection, mating strategies, social interactions, predator-prey interactions at multiple spatial and temporal scales, which are critical to identifying effects to population persistence and ecological processes…"	Detailed habitat assessment and biological sampling (fish and benthic invertebrates) of a subset within the PDA to characterize habitat, fish and benthic invertebrates. Fish community sampling using methods to target different trophic levels (as appropriate) and will including benthic invertebrates. Biological field studies targeting lower and upper trophic levels will serve to describe food base and predators, species distribution, size and age class. Describe sensitive habitat features including habitat connectivity and migration barriers (desktop and field) to identify potential routes and habitat access for migratory species, variances in habitat conditions and species composition will be noted when these are observed.	Baseline studies including dispersion, fertility, recruitment, mortality, re-colonization, sex-ratios, etc. are unprecedented for an assessment of projects of similar scope, as it is generally accepted that negative residual effects to these aspects of fish and fish habitat are unlikely to occur with current industry practices. For example, such studies are not required by the DFO Fish Habitat Protection Program project review process to review similar projects to assess the potential for negative residual effects, or harmful alteration, disruption or destruction to fish habitat or harm to fish. The scope of work of the Project can also be compared to works undertaken by the Ontario Ministry of Transportation, who's class EA process and Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings does not require such studies, nor does construction of access roads and water crossing construction under the Ontario Crown Land Bridge Guidelines or Ontario Environmental Guide for Access Roads.	Reword the requirement: − The Impact Statement must provide a characterization of fish (as defined in subsection 2(1) of the *Fisheries Act*) and other aquatic species following guidance such as DFO Fish Habitat Protection Program, MTO's Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings and the Ontario Crown Land Bridge Guidelines or Ontario Environmental Guide for Access Roads. − Habitat (including sensitive habitat features, connectivity and access) for resident and migratory species must be described. − Information on food webs and trophic levels, structural and functional linkages, life history and population dynamics, such as dispersion, fertility, recruitment, mortality rates, re-colonization, age structure, sex ratios, population regulation, stability, distribution (communities, stocks, subpopulations, metapopulations), movements, and migratory patterns, routes and preferred corridor, seasonal and annual trends in abundance, sensitive	As proposed, the Federal Review Team finds that the approach is likely to allow the collection of sufficient data to adequately characterize the fish and fish habitat potentially affected by the Project and subsequently assess residual effects. However, information on specific endpoints should be included in the Impact Statement, if and where potential Project-related effects may occur. Provide in the Impact Statement rationale for the approach followed, taking into account the feedback from the Federal Review Team. Include in the Impact Statement information on specific endpoints, if and where potential Project-related effects may occur.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
		Data collection will occur through some combination of desktop, field studies and/or biological sampling specific to assess fertility, recruitment, mortality, re-colonization, sex ratios, population regulation, stability, behavioural studies are not proposed. Social and behavioural aspects will be considered in a qualitative manner		habitats and periods in relation to the study area, behavioural habitat selection, mating strategies, social interactions, predator-prey interactions at multiple spatial and temporal scales, which are critical to identifying effects to population persistence and ecological processes, must be considered, where potential project-related effects have potential to occur.	
25	**Section 8.8** "…The Impact Statement must provide a description of the biodiversity within the freshwater environment, including: -Description of the aquatic biodiversity including trophic state, periphyton, phytoplankton, zooplankton, fish, their interactions and relative significance. and the relative significance in the food chain…"	Biological sampling will incorporate methods to target fish species of all trophic levels (where applicable), and benthic invertebrates across subwatersheds and habitat types of the PSA to characterize biodiversity and food base. Observations of periphyton will be noted. Sampling of zooplankton and phytoplankton is not proposed.	Baseline studies including zooplankton and phytoplankton sampling are unprecedented for an assessment of projects of similar scope, as it is generally accepted that negative residual effects to these aspects of fish and fish habitat are unlikely to occur with current industry practices. For example, such studies are not required by the DFO Fish Habitat Protection Program project review process to review similar projects to assess the potential for negative residual effects, or harmful alteration, disruption or destruction to fish habitat or harm to fish. The scope of work of the Project can also be compared to works undertaken by the Ontario Ministry of Transportation, who's class EA process and Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings does not require such studies, nor does construction of access roads and water crossing construction under the Ontario Crown Land Bridge Guidelines or Ontario Environmental Guide for Access Roads.	Remove this requirement	Include in the Impact Statement a detailed and clear rationale for omitting zooplankton and phytoplankton sampling from the assessment.
26	**Section 7.2** "…With regard to field studies, survey work must be planned to include multiple sampling locations and multiple visits to each location to support all required assessment analyses. Existing data should be considered as a limited augmentation of this new data. See the "Establishing Baseline Conditions" (sections 8.5, 8.9,	Descriptions of specific data sources, data collection, sampling, survey and research protocols and methods followed for each baseline environmental condition will be provided in the IA/EA and are summarized in this Study Plan. We will be sampling a subset of the watercourse crossings and a	Sufficient field information is available through historic and/or recent field investigations to understand annual and seasonal variation. Given the size of the study areas, we proposed a subset of water crossings to be included for field assessment. Aerial reconnaissance surveys provide additional contextual information at crossings. Historic data further builds our understanding of regional changes.	Reword the requirement: − With regard to field studies, survey work must be planned to include multiple sampling locations and consider multiple visits to each location to support all required assessment analyses. Applicability of using existing data should be described in the IS report. See the "Establishing Baseline Conditions" (sections 8.5, 8.9, 8.10, 8.11) in this	Detailed information describing each watercourse crossing for the preferred route (e.g., qualitative and/or quantitative information about the predicted/potential effects to fish species and fish habitat) will be required by Fisheries and Oceans Canada (DFO) during the permitting phase of the Project. As proposed, the Federal Review Team finds that the approach proposed (i.e., sampling a subset of the watercourse crossings over multiple years and multiple times of year (spring, summer, fall)) could allow the

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	8.10, 8.11) in this Tailored Impact Statement Guidelines for recommendations on survey design and methodology. Surveys and analyses should be conducted by qualified experts. Baseline data must be collected in a manner that enables reliable analysis, extrapolations and predictions. Resulting data should be suitable for analyses to estimate pre-project baseline conditions, derive predictions of impacts, and evaluate and compare post-project conditions and at scales of within and across the Project, Local and Regional Assessment areas. Modelling methods, error estimates and assumptions should be reported (as per Section 7.1). Modelling and simulations should be used early in the planning phase to estimate the necessary sampling intensity and to quantitatively evaluate the effectiveness of design options. Ethical guidelines and relevant cultural protocols governing research, data collection and confidentiality must be adhered to…"	subset of those will be visited in multiple seasons and/or years to provide insight into annual and seasonal variation. Additional context will be provided by previous studies (Cliffs Chromite Project)		Tailored Impact Statement Guidelines for recommendations on survey design and methodology. Surveys and analyses should be conducted by qualified experts. − Baseline data must be collected in a manner that enables reliable analysis, extrapolations and predictions. Resulting data should be suitable for analyses to estimate pre-project baseline conditions, derive predictions of impacts, and evaluate and compare post-project conditions and at scales of within and across the Project, Local and Regional Assessment areas. Modelling methods, error estimates and assumptions should be reported (as per Section 7.1). Modelling and simulations should be used early in the planning phase to estimate the necessary sampling intensity and to quantitatively evaluate the effectiveness of design options. Ethical guidelines and relevant cultural protocols governing research, data collection and confidentiality must be adhered to.	collection of sufficient data for the Impact Statement. However, this is contingent on existing data being complete and robust enough to augment data collected during the field investigations. Baseline data must enable reliable analysis, extrapolations and predictions, and should be suitable for analyses to estimate baseline conditions, derive predictions of impacts, and evaluate and compare post-project conditions. Refer also to the feedback provided in the document: "Comments on Marten Falls Community Access Road Project (Project) revised Fish and Fish Habitat Study Plan from August 24, 2021, in particular comments FH-03 and FH-04. Include in the Impact Statement a detailed and clear rationale for using the alternative approach, taking into account the feedback provided by the Federal Review Team.
27	**Section 8.8** "…The Impact Statement must… provide a description of habitat information that includes water depths (bathymetry) and the littoral, sublittoral, limnetic, profundal, and benthic zones. Stratification information will include epilimnion, metalimnion, and hypolimnion depths in combination with a water chemistry profile (dissolved oxygen, pH, conductivity, etc.)…"	Habitat data including that specific to lake environments (e.g., temperature and water chemistry profile, lakes zonation, depth, etc.) will be provided in the IS where such lake environments fall within the area of detailed habitat assessment. Preliminary route alternatives and site selection does not identify any lakes crossed by either route alignment and therefore no lake environment within the area proposed for field studies.	There are no lakes (specifically those that would thermally or chemically stratify).	Remove requirement	Include in the Impact Statement the rationale to justify the habitat description provided for lakes, in particular for those that would thermally or chemically stratify.
28	**Section 8.8** "…The Impact Statement must… describe the use of fish and/or aquatic species (including Walleye (*Sander*	The VC list has been refined to focus on relevant and representative species. Selection of these species was	The list of species continues to evolve as the project progresses. To date, the VCs selected (based on discussions with Marten Falls community, desktop information and	Reword the requirement: - The Impact Statement must describe the use of fish and/or aquatic species for	The Impact Statement must address all requirements outlined in the Guidelines. The requirements listed in Section 8.8 of the Guidelines were determined by

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
	vitreus), Northern Pike (*Esox lucius),* Lake Whitefish (*Coregonus clupeaformis),* Brook Trout (*Salvelinus fontinalis),* Chain Pickerel (*Esox niger),* Yellow Perch (*Perca flavescens),* Cisco (*Coregonus artedi),* Burbot (*Lota lota),* Longnose Sucker (*Catostomus catostomus),* White Sucker (*Catostomus commersoni),* Lake Sturgeon (*Acipenser fulvescens)* and Lake chub (*Couesiius plumbeus)* for consumption or where use has Indigenous cultural importance…"	conducted considering cultural significance and use for consumption, as well as recreational and economic importance. Details regarding the VC selection and rationale, including cultural importance and Indigenous use for consumption will be included in the IA, and will largely be carried out through desktop analysis and Indigenous consultation.	public input) are not the same as those listed here.	consumption or where use has Indigenous cultural importance;	consultation activities during the planning phase and experts' advice.[3] The Impact Statement must describe the use of fish and/or aquatic species as outlined in Section 8.8. The list may need to be expanded to include additional species of importance, if they are identified during the assessment.
29	**Section 14.1** "…The Impact Statement must… assess the potential for emissions from the Project to contribute to acid deposition and exceedances of critical loads for terrestrial and aquatic ecosystems…"	There will be no assessment of emissions from the project to contribute exceedances of critical loads for terrestrial and aquatic ecosystems. There is no threshold established to determine that a specific concentration of NOX and SO2 would be detrimental to the terrestrial and aquatic valued components.	There is no threshold established to determine that a specific concentration of NOX and SO2 would be detrimental to the terrestrial and aquatic valued components. Studies to establish these thresholds have never been undertaken.	Remove Requirement	Include in the Impact Statement a detailed and clear rationale to explain the extent of the approach followed, taking into account baseline conditions and estimated emissions from the Project. Note that several participants raised concerns with acid deposition during the planning phase.[3]
30	**Section 15.1** "…The assessment must… include a consideration of changes to water quality both at the discharge point and in the receiving environment; changes to water quality due to runoff from any temporary and permanent project components…"	Qualitative discussion of the potential changes in surface water and subsequent effects on fish will be assessed as part of the IA/EA. Refer to the Surface Water Study Plan for more information.	Information on project discharges, if applicable, will be assessed in the EA/IA. There are no permanent discharges anticipated.	Reword the requirement: - The assessment must include a consideration of potential changes to water quality due to runoff from any temporary and permanent project components;	The Impact Statement must assess the full lifecycle of the Project taking into account all releases due to physical activities, whether the release occur at discharge points or are non-point source releases. For example, the Impact Statement must include a description of how discharges/sewage from worker camps, discharges from accidental spills and leaks, discharges from dewatering of aggregate pits and other areas and deposition of dust on waterbodies used for drinking and/or recreational activities, as applicable, would be managed.
Human Health and Community Safety Study Plan					
31	**Section 16.2** "…Describe and quantify specific thresholds and document if different thresholds were considered for vulnerable populations, including by sex and age;provide rationale and justification if specific thresholds are not used…"	Social determinant effects will be described qualitatively consistent with the magnitude definitions in Section 9.6	Quantified data may not be available.	Quantification will be pursued when possible but may not be feasible for social factors related to human health and community safety. However, the magnitude of effect will be noted with respect to different sub-groups and relevant identity factors, where applicable.	A quantitative description of change of a variable or indicator may not always be possible or appropriate. Provide to the Agency further information specifying the valued components or indicators planned to be described qualitatively, including the rationale to explain why the qualitative approach is applicable.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
Peatlands Study Plan					
32	**Section 7.4.2** "…For valued components related to wetlands, eskers, birds, wildlife, and Species at Risk, define temporal boundaries in a manner that enables detection of all species that use the project study area, local study area, and regional study area throughout the year and between years, and to estimate their temporal pattern of use (e.g., breeding, or migrants stopping on northward and/or southward migration). Baseline data collection for all biophysical valued components is to be provided for a minimum of two years, unless specified otherwise. Temporal boundaries spanning more than one year will enable accounting for variation due to irregular events (e.g., masting events, storms on migration, late snowfalls)…"	Data (desktop and field-based) will be collected to represent temporal sources of variation. Data collected will be representative of the temporal perspective of multi-years of study by using baseline data from previous years / seasons and desktop studies to supplement proposed field studies.	The combined methodologies outlined in Sections 7.2 to 7.3 [of the peatland's study plan] will constitute multiple years of study per 7.2 and 7.4.2 of the Guidelines. It is not anticipated that changes to the biophysical aspects of the Peatland VC will be substantially varied between subsequent years of field studies.	N/A	The proposed approach is unclear. Refer to the feedback provided in the document: "Comments on the Marten Falls Community Access Road Project Peatland Study Plan" from August 4, 2021, in particular comments PE-13. Provide in the Impact Statement information to demonstrate how and which soil sampling sites are representative of the locations for traditional land and resource use by Indigenous groups, and whether the Proponent considered Indigenous input to develop the proposed study methods and identify the study locations.
Surface Water Study Plan					
33	**Section 8.1** "…The Impact Statement must:… - for the aquatic environment, provide current underwater soundscape and vibration descriptions of the study area and at the project site from various sources based on acoustic measurements. Provide information on vibration and sound sources, geographic extent and spatial and temporal variations within the water column;…"	Based on the proposed engineering and anticipated construction methods of the CAR, there are no anticipated pathways of effects associated with changes in underwater noise and vibration.	There are no established underwater noise or vibration criteria associated with road development	Remove this requirement	Refer to the feedback provided in the document: "Comments on Marten Falls Community Access Road Project revised Acoustic Environment Study Plan, from January 7, 2022, in particular comment AC-12. Include in the Impact Statement a detailed and clear rationale to justify why the requirement is not relevant for the Project. Stating that "*There are no established underwater noise or vibration criteria associated with road development*" may be a methodological challenge but is not a rationale to justify lack of relevance for the Project.
Vegetation Study Plan					
34	**Section 14.1** "… The Impact Statement must… assess the potential for emissions from the Project to contribute to acid deposition and exceedances of critical loads for terrestrial and aquatic ecosystems…"	There will be no assessment of emissions from the project to contribute exceedances of critical loads for terrestrial and aquatic ecosystems. There is no threshold established to determine that a specific concentration of NOX and SO2 would be detrimental to the terrestrial and aquatic VCs.	There is no threshold established to determine that a specific concentration of NOX and SO2 would be detrimental to the terrestrial and aquatic VCs. Studies to establish these thresholds have never been undertaken.	Remove Requirement	Include in the Impact Statement a detailed and clear rationale to explain the extent of the approach followed, taking into account baseline conditions and estimated emissions from the Project.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
Visual Aesthetics Study Plan					
35	**Section 8.1** "…The Impact Statement must…describe existing ambient nighttime light levels at the project site and at any other areas where project activities could have an effect on light levels. The Impact Statement will describe night-time illumination levels during different weather conditions and seasons…"	The road is not expected to require any long term permanent lighting.	Due to the fact that there are no anticipated long-term permanent lighting structures required for the Project, there will be no potential lighting impacts to assess.	Remove this requirement	The Impact Statement will be expected to include a description of potential changes in night-time light levels resulting from the Project. Light-level effects should include both permanent and intermittent effects on wildlife of importance potentially present in the vicinity of the road that could be disturbed by vehicle lighting. If the Project would not result in changes in night-time light levels (both permanent and intermittent), the Impact Statement should indicate there is a lack of potential effects and describe the relevant arguments and evidence as rationale.
36	**Section 14.1** "…Identify and justify the approach to determine the extent to which sound effects resulting from the Project are adverse and describe any changes in night-time light levels as a result of the Project…"	The road is not expected to require any long term permanent lighting.	Due to the fact that there are no anticipated long-term permanent lighting structures required for the Project, there will be no potential lighting impacts to assess.	Remove this requirement	The Impact Statement will be expected to include a description of potential changes in the acoustic environment as well as night-time light levels resulting from the Project. Sound effects can influence wildlife negatively, and this will need to be considered in the measure of potential impacts. Light-level effects should include both permanent and intermittent effects on wildlife of importance potentially present in the vicinity of the road that could be disturbed by vehicle lighting. If the Project would not result in changes in night-time light levels (both permanent and intermittent), the Impact Statement should include the lack of potential effects and describe the relevant arguments and evidence as rationale. Furthermore, the Impact Statement is expected to include a description of the potential changes in intermittent noises, and its effects on wildlife.
37	**Section 17.2** "…The impact statement must: describe predicted effects to recreation (e.g., hunting, fishing, hiking, wildlife viewing, aesthetic enjoyment) by the community and Indigenous groups, and youth within these communities, including effects to: - Access to the resources - Quantity and quality of the resources; and - Overall experience when undertaking recreation activities, including noise, odours/air quality, and effects on visual landscapes…"	Assessment of effects to recreation activities are covered in the Land Use Assessment. This assessment will take into account any potential impacts on the visual landscape as applicable	Assessment of effects to recreation activities are covered in the Land Use Assessment. This assessment will take into account any potential impacts on the visual landscape as applicable.	See the Land and Resource Use Study Plan	The Agency acknowledges the clarification.

ID	Excerpt from the Guidelines	Proponent's Response	Proponent's Justification/Rationale	Proponent's Proposed Approach	Comments from the Federal Review Team
38	**Section 19.1** "…The potential effects…not limited to…Visual aesthetics over the life of the Project and post-Project abandonment or decommissioning..."	Impacts to visual aesthetics will be addressed in the Visual Environment Assessment for the construction and operation periods of the Project (see Section 9 of the Study Plan).	There are currently no plans to decommission the CAR as there is no expected / known end date for its need. Therefore, future suspension, decommissioning and eventual abandonment of the CAR will not be considered in the IS / EA Report. It will be considered if and when a decommissioning or abandonment application is made for the road.	Reword the requirement to remove "post-Project abandonment or decommissioning"	Include in the Impact Statement a clear description of the circumstances under which decommissioning and abandonment would occur, and demonstrate a commitment to following environmental and social best practice in all activities over the life of the Project. If the Proponent does not anticipate decommissioning and abandonment, the Impact Statement must state clearly under what circumstances decommissioning and abandonment could occur. Note that this requirement is applicable to all valued components potentially impacted by the Project.
Wildlife Study Plan					
39	**Section 14.1** "…The Impact Statement must… assess the potential for emissions from the Project to contribute to acid deposition and exceedances of critical loads for terrestrial and aquatic ecosystems;…"	There will be no assessment of emissions from the project to contribute exceedances of critical loads for terrestrial and aquatic ecosystems. There is no threshold established to determine that a specific concentration of NOX and SO2 would be detrimental to the terrestrial and aquatic valued components	There is no threshold established to determine that a specific concentration of NOX and SO2 would be detrimental to the terrestrial and aquatic valued components. Studies to establish these thresholds have never been undertaken	Remove Requirement	Include in the Impact Statement a detailed and clear rationale to explain the extent of the approach followed, taking into account baseline conditions and estimated emissions from the Project.