

APPENDIX C

EIS/EA CONCORDANCE WITH RESPONSES TO COMMENTS RECEIVED

(Provided digitally on USB flash drive with Volume 1 binder and on website address:
<https://www.firstmininggold.com/springpole-ea>)

- C-1 Federal Impact Assessment Agency of Canada and Environment and Climate Change Canada Comments on Baseline Study Reports and the Draft EIS/EA
- C-2 Ontario Ministry of the Environment, Conservation and Parks; Ministry of Northern Development and Mines; Ministry of Natural Resources and Forestry; Ministry of Mines, and Ministry of Tourism, Culture and Sport Comments on Baseline Study Reports and the Draft EIS/EA
- C-3 Shared Territory Protocol Nations Comments on Baseline Study Reports
- C-4 Cat Lake First Nation and Lac Seul First Nation Comments on the Draft EIS/EA
- C-5 Mishkeegogamang Ojibway Nation Comments on Baseline Study Reports and the Draft EIS/EA**
- C-6 Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA
- C-7 Northwestern Ontario Métis Community Comments on the Draft EIS/EA

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
MON-BL-001	Baseline Terrestrial Biology Summary Report	2.2.1. Methodology - Vegetation - 2011	<p>Table 1.1-1 shows the ecosites documented in the Project Area of Investigation and Local Area of Investigation. Several wetland ecosites common in boreal ecosystems are absent. For instance, Table 1.1-2 shows the distribution of "habitat types" based on the combination of similar ecosites and marshes, a common and abundant wetland ecosite in northwestern Ontario, represent a minor proportion of the total area of study.</p> <p>The classification of the landscape in ecosites was based on the Forest Resource Inventory (FRI). Notably, the FRI uses a semi-automated classification algorithm that removes all the waterbodies and associated wetlands from the classifications. Thus, ecologically important open water wetland ecosites, such as marshes, are under- represented in the FRI.</p> <p>This problem is also present at the Regional Area of Investigation level (see Table 1.1-3)</p>	<p>Provide an updated classification of the landscape in the study area that addresses the technical limitations of the FRI.</p> <p>It is also recommended that the EA and future reports incorporate an updated classification of the landscape.</p> <p>One approach to overcoming the issue of under-represented ecosites is to manually delineate the wetlands contained within waterbody polygons in the FRI using aerial photography. Delineated polygons can be classified using the Ecological Land Classification system. Finally, the classification accuracy can be evaluated using field-collected data.</p> <p>Discuss the limitations of the approach used for the landscape classification and evaluate the sufficiency of the ground-truthing completed as part of the baseline study.</p>	<p>The Ministry of Northern Development, Mining, Natural Resources and Forestry (NDMNR) Far North Land Cover Data Specifications Version 1.4 (2014) provides corresponding Boreal ecosite codes for each land cover class. Fieldwork completed in 2021 refined the Boreal ecosite codes for each Far North Land Cover class. Further, to inform Boreal ecosite classification, vegetation inventories and ELC stand descriptions were completed based on the Boreal Ecological Land Classification manual (Ecological Land Classification Working Group, 2009).</p> <p>In 2021, Wood significantly increased the number of vegetation (including wetland) communities that were sampled. In total, a 193 vegetation community surveys throughout the Study Area were surveyed and 25 ecosite codes were assigned corresponding to 13 Far North Land Cover communities.</p> <p>Wood continues to evaluate the vegetation community sampling efforts completed to date (2012 to 2021) to determine whether supplemental vegetation plots would improve landscape characterization.</p>	Appendix P-1 section 2.3
MON-BL-002	Baseline Terrestrial Biology Summary Report	2.2.1. Methodology - Vegetation - 2011	<p>The report indicates that "In some incidences the FRI data differed from the ecosite classification determined through field work and this was noted."</p> <p>Evaluating the accuracy of the FRI classification is a fundamental requirement to validate its use, as is the case with any remotely-sensed data. The report states that twenty-three (23) vegetation plots were completed in 2011 in the LAI. However, the information presented is not sufficient to evaluate the adequacy of the FRI data for the reasons described below.</p> <p>In Table 1.1-1, the report shows that 42 different ecosites are found in the LAI. Reasonably, it can be expected that the accuracy of the FRI varies across ecosites. The FRI may be highly accurate at classifying ecosite B128, for instance, while having a low accuracy for ecosite B127. If this assumption is valid, it is necessary to field-verify the classification of a representative sample of all of the ecosites included in the inventory for the LAI. The effort used in 2011 (n = 23) is not sufficient to evaluate the adequacy of the FRI because it could only include a fraction of the ecosites with minimum effort.</p> <p>The report acknowledges differences between the FRI data and the field classification of ecosites. However, it does not present an error rate that allows an evaluation of the data, nor does it describe the evaluated ecosites.</p>	<p>Present an adequate evaluation of the adequacy of the FRI based on empirical data. The evaluation should consider the use of sufficient sampling effort to assess the adequacy at the ecosite level.</p> <p>Present a quantitative measure of the accuracy of the FRI classification, such as an error rate based on the field verification.</p> <p>Alternatively, provide a rationale to justify the adequacy of the data, as presented in the report.</p>	<p>Wood continues to evaluate the vegetation community sampling efforts completed to date (2012 to 2021) to determine whether supplemental vegetation plots would improve landscape characterization.</p>	Appendix P-1 section 2.3

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MON-BL-003	Baseline Terrestrial Biology Summary Report	2.2.1. Methodology - Vegetation - 2012	<p>The report indicates that 75 field plots were sampled along six transects in 2012, where data on the composition of the vegetation communities and the environmental conditions were collected. The objective of the surveys was "to determine common vegetative assemblages associated with habitat types, including riparian, upland, and wetland."</p> <p>The described objectives are inconsistent with earlier sections of the report, where habitat types are classified at a finer scale. For instance, Tables 1.1-2 and 1.1-3 classify the study area in twelve habitat types. Further, Table 1.1-1 implicitly uses the Ecological Land Classification system to classify the study area into 41 different habitat types (ecosites). In contrast, this section classifies all habitats into three types, upland, riparian, and wetland.</p> <p>Further, this section does not inform what sampling strategy was used, nor does it provide a rationale to justify its use.</p>	<p>Explain why the objectives of the 2012 study used a different approach to classifying habitat.</p> <p>Describe and justify the adequacy of the sampling strategy employed (i.e., random, stratified by habitat type, etc.).</p> <p>Discuss whether the 75 plots along six transects were sufficient to obtain a representative sample of the variation in vegetation communities in the study area.</p>	<p>Vegetation surveys conducted in previous years were focused on what is now the proposed mine site. The 2012 baseline report states that Forest Resource Inventory (FRI) data for Trout Lake Forest was obtained and used to conduct vegetation assessments at the stand scale. The study area was then categorized by 'ecosite' and the total area of each 'ecosite' was determined and field plots were assigned based on access and overall percent coverage. Field plots determined the Vegetation type (V-type) or Wetland type (W-type). To determine V or W-type the Terrestrial and Wetland Ecosites of Northwestern Ontario field guide (Racey et al. 1996) was used. The V-type was further refined using Field Guide to the Forest Ecosystem Classification for Northwestern Ontario (Sims et al. 1997) and the W-type was refined using the Field Guide to the Wetland Ecosystem Classification for Northwestern Ontario (Harris et al. 1996).</p> <p>The 2013 vegetation baseline report completed field surveys and a desktop statistical analysis of species richness, diversity, and evenness. The field surveys were conducted throughout the study area to determine common vegetative assemblages associated with habitat types including riparian, upland and wetland. Diversity was determined through two indices: Shannon's diversity index and Simpson's diversity index. Further, the vegetation baseline report included wetland evaluations to describe wetlands based on the Ontario Wetland Evaluation System (OWES) (note a previous version was applicable at the time).</p> <p>The 2020 baseline report states vegetation surveys in 2019 were completed in underrepresented ecosites. These vegetation surveys were completed outside of the proposed mine site area. The vegetation surveys used modified ecosite calibration plots (Ministry of Natural Resources, 2013). Three discrete plots were surveyed in each ecosite polygon. A condensed wetland survey was conducted and OWES was not applied as it was deemed unnecessary given the homogeneity of the area and the previous survey did not result in significant findings.</p> <p>In 2021, Wood significantly increased the number of vegetation (including wetland) communities that were sampled. In total, a 193 vegetation community surveys throughout the study area were surveyed and 25 ecosite codes were assigned corresponding to 13 Far North Land Cover communities.</p> <p>Wood continues to evaluate the vegetation community sampling efforts completed to date (2012 to 2021) to determine whether supplemental vegetation plots would improve landscape characterization.</p>	Appendix P-1 section 2.3

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MON-BL-004	Baseline Terrestrial Biology Summary Report	2.2.1. Methodology - Vegetation - 2019	<p>The report indicates that the objective of the 2019 vegetation surveys was to "(have) all ecosites surveyed in relative proportion to their abundance within the vegetation LAI across the entire baseline data collection period (2011-2019)."</p> <p>However, the report does not describe surveys at the ecosite level in previous years. Thus, it is unclear whether the 2019 surveys adequately supplement the 2011 and 2012 studies.</p> <p>Further, the sampling effort (n = 30) does not seem adequate to represent all of the ecosites present in the study area.</p>	<p>Present a summary of how the ecosites surveyed in 2019 supplement the previous studies.</p> <p>Explain how the studies completed between 2011 and 2019 represent the ecosites in the study area proportionally to their abundance.</p> <p>Justify the sufficiency of the effort used to achieve the objective of proportional representation of ecosites.</p> <p>In consideration of future surveys, indicate how they will be planned to ensure consistency with previous studies and robustness of the assessment.</p>	<p>See the response to comment #3 for a summary of the methods used to sub-sample vegetation communities from 2011 to 2019.</p> <p>In 2021, Wood significantly increased the number of vegetation (including wetland) communities that were sampled. In total, a 193 vegetation community surveys throughout the Study Area were surveyed and 25 ecosite codes were assigned corresponding to 13 Far North Land Cover communities.</p> <p>Wood continues to evaluate the vegetation community sampling efforts completed to date (2012 to 2021) to determine whether supplemental vegetation plots would improve landscape characterization.</p>	
MON-BL-005	Baseline Terrestrial Biology Summary Report	2.2.2. Methodology - Wetlands - 2012	<p>The report indicates that 18 wetlands were evaluated following the Ontario Wetlands Evaluation System (OWES). Figure 2.2. illustrates the location of the assessed wetlands. However, in the figure, the extent of each wetland is unclear. Further, it is unknown whether some wetlands were grouped and treated as complexes.</p>	<p>Present a figure where each of the eighteen (18) wetlands is a distinguishable unit.</p>	<p>Wetland data available from surveys spanning 2011 to 2020 is being incorporated into the draft EIS/EA.</p>	Appendix P-1 section 2.3
MON-BL-006	Baseline Terrestrial Biology Summary Report	2.2.2. Methodology - Wetlands - 2019	<p>The report indicates that no wetlands were evaluated in 2019 because no Provincially Significant Wetlands were identified in 2012, and given the Project area's homogeneity.</p> <p>However, none of those premises are adequately supported by presenting the data used in the analysis.</p> <p>Thus, it is impossible to assess the adequacy of the decisions made regarding the need for additional surveys in 2019.</p>	<p>Present the results of the OWES analyses.</p> <p>Provide a rationale to justify the statement that the area of the Project is homogeneous. Will this rationale apply to future footprint changes or expansions? An evaluation should be conducted to determine potential effects and compensation for wetlands that are proposed to be directly impacted or destroyed.</p>	<p>Wetland data available from surveys spanning 2011 to 2020 is being incorporated into the draft EIS/EA.</p> <p>In 2021, wetlands expected to be directly impacted by a proposed components of the Project (i.e., focused around the LSA and RSA) were assessed by Wood. Wood continues to evaluate the vegetation community sampling efforts completed to date (2012 to 2021) to determine whether supplemental vegetation plots would improve landscape characterization.</p>	Appendix P-1 section 2.3
MON-BL-007	Baseline Terrestrial Biology Summary Report	2.2.2. Methodology - Wetlands - 2019	<p>The report states that "Forty-eight (48) wetland ecosites were surveyed during the 2019 vegetation surveys."</p> <p>However, no information is presented regarding the distribution of sampling units, strategy, and effort.</p>	<p>Provide a map showing the location of the sampling units. Also, describe the associated methodology, including the sampling strategy and effort.</p> <p>More generally, reviews of the baseline studies would be facilitated if additional maps depicting the footprint of the Project at a finer scale were included.</p>	<p>Wetland data available from surveys spanning 2011 to 2020 is being incorporated into the draft EIS/EA, which includes a map depicting the Project footprint.</p>	Appendix P-1 section 2.3
MON-BL-008	Baseline Terrestrial Biology Summary Report	2.3.1.1. Methodology - Wildlife - Migratory Birds	<p>Overall, the description of the methodology is insufficient to evaluate the adequacy of the baseline for migratory birds.</p> <p>The report states that "Survey locations were distributed to represent the range of habitat categories found throughout the area of investigation." However, despite the claim that the distribution of the sampling units aimed to represent the range of habitat categories, the sampling effort seems to indicate that some types were over- represented. In turn, some habitat types were barely surveyed. For example, based on Table 1.1-2, coniferous habitat represents 21.9% of the LAI. But, the effort allocated to that habitat type, expressed as a percentage of the total area surveyed, corresponds to 50.4%, based on table 3.3.1.1-2.</p> <p>Second, it is apparent that temporal replication of the surveys was not</p>	<p>Describe the sampling strategy, including the stratification per habitat category and the effort allocated to each sampling unit and habitat category in each year of study.</p> <p>Provide a rationale to justify the lack of temporal replication of the surveys.</p>	<p>Wood completed additional avian baseline surveys in 2021 and plans to re-sample areas in 2022.</p>	Appendix P-1 section 2.4.6

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			<p>planned. Each year, different sampling units were surveyed.</p> <p>Third, areas near the camp, where the footprint of the Project is located, were only surveyed in 2011 and 2012. Thus, the consequence of this apparent lack of sampling strategy is the inability of the data to adequately represent the spatial and temporal variation in the bird communities.</p>			
MON-BL-009	Baseline Terrestrial Biology Summary Report	2.3.2.3. Methodology - Wildlife - Furbearers	The report indicates that data from historical trapping records were used to estimate population trends for "the last 30 years." The results of the analysis are later presented in Table 3.3.2.3. However, the methodology used to estimate trends is omitted.	<p>Describe the methodology used to estimate the temporal trends for furbearers in the RAI and LAI.</p> <p>Discuss in the report the limitations of the inferences made based on trapping records.</p>	The draft EIS/EA is being prepared and will include a summary of the most recent historical trapping records and the methods used to estimate any temporal trends.	Appendix P-1 section 2.4.5, 2.4.6
MON-BL-010	Baseline Terrestrial Biology Summary Report	3.1 Field Survey Results - Vegetation	<p>The report indicates that fifty (50) and eighty-nine (89) plant species were identified in 2011 and 2012, respectively.</p> <p>Appendix A lists the plant species identified in 2011. However, the 2012 results are absent, and a duplicate of the 2011 results replaces them.</p> <p>Also, the species richness differs significantly between surveys, with a 78% increase observed in 2012. There are several possible interpretations for this difference: actual variation between the surveyed sites, differences in effort, and observer error.</p>	<p>Include the results of the 2012 Vegetation Survey in the Appendices.</p> <p>Discuss the possible causes that can explain the differences between the 2011 and 2012 surveys.</p> <p>If appropriate, discuss the limitations of the 2011 surveys.</p>	<p>Where feasible, the results of the 2012 vegetation survey results and causes of variation across years is included in the draft EIS/EA.</p> <p>In 2021, Wood significantly increased the number of vegetation (including wetland) communities that were sampled. In total, a 193 vegetation community surveys throughout the Study Area were surveyed and 25 ecosite codes were assigned corresponding to 13 Far North Land Cover communities.</p> <p>Wood continues to evaluate the vegetation community sampling efforts completed to date (2012 to 2021) to determine whether supplemental vegetation plots would improve landscape characterization.</p>	Appendix P-1 section 3.1
MON-BL-011	Baseline Terrestrial Biology Summary Report	3.1 Field Survey Results - Vegetation	<p>Table 3.1 classifies habitat types in the study area as upland, riparian, or wetland. This classification is incongruent with the categories presented in Tables 1.1.2 and 1.1.3 of the Methodology, which classify habitat types based on the combination of similar ecosites.</p> <p>Table 3.1 presents averages and ranges for community indexes for each habitat type in 2012. However, equivalent results for the 2011 and 2019 surveys are not shown.</p>	Classify habitat types in a consistent manner and present equivalent data for each survey. Alternatively, justify the use of different approaches.	<p>Comment noted.</p> <p>Wood used the NDMNRF Far North Land Cover Data Specifications Version 1.4 (2014) which provides corresponding Boreal ecosite codes for each land cover class. Fieldwork completed in 2021 refined the Boreal ecosite codes for each Far North Land Cover class. Further, to inform Boreal ecosite classification, vegetation inventories and ELC stand descriptions were completed based on the Boreal Ecological Land Classification manual (Ecological Land Classification Working Group, 2009).</p>	Appendix P-1 section 3.1
MON-BL-012	Baseline Terrestrial Biology Summary Report	3.2 Field Survey Results – Wetlands - 2012	<p>The report states that no provincially significant wetlands were identified based on the OWES.</p> <p>The average and range of OWES scores are included in the results. However, these results are meaningless because the targets of the evaluation were individual wetlands.</p>	<p>Provide a map showing the location of each of the evaluated wetlands.</p> <p>Provide a table showing the scores for each of the wetlands analyzed.</p>	Wetland data available from surveys spanning 2011 to 2020 is being incorporated into the draft EIS/EA.	Appendix P-1 section 3.1.2
MON-BL-013	Baseline Terrestrial Biology Summary Report	3.3.1.1 Field Survey - Results - Wildlife - Birds - Migratory Birds - All Years	<p>Table 3.3.1.1 - 1 shows the abundance and density of migratory birds in different habitat types. However, the associated methodology does not describe how abundance and density were estimated.</p> <p>Although this classification of habitats is congruent with what was presented earlier, its rationale is unclear.</p>	<p>Describe the methods used to estimate the abundance and density of migratory birds.</p> <p>Provide a rationale behind the habitat classification followed.</p> <p>In addition to a summary, present disaggregated data for the</p>	A total of 146 point-counts were conducted between 2011 and 2019 with 68 species observed from the 958 individuals recorded. An additional 32 species not recorded within point counts were observed during other surveys or incidentally, bringing the total species tallied in the LSA to 100. The total bird abundance and density by species and habitat combining all the point-count data	Appendix P-1 section 3.2, 3.3

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			It is understandable that, for simplicity, a single table is presented. However, pooling data from several years prevents interpretations regarding the temporal variation of the bird communities.	characterization of the bird communities. Clarify whether migratory birds surveys have been conducted to support the assessment of the access road and transmission line right-of-way.	from 2011 to 2019 and controlling for area of each main habitat type in the study area (birds/ha). Wood conducted extensive avian surveys in 2021 along linear corridor alternatives proposed for the Project. Wood plans to re-sample areas in 2022 as per ECCC's Guidance Memo Springpole Gold Project Environmental Assessment on Birds and Their Habitat. Repeated sampling of locations or spatial overlap of sampling between years is being conducted to separate spatial variability from temporal variability. 2021 survey results are being included in the draft EIS/EA.	
MON-BL-014	Baseline Terrestrial Biology Summary Report	3.3.1.6 Field Survey - Results - Wildlife - Birds - Eastern Whip-poor-will	<p>Generally speaking, the Project is near the northern edge of the range of the eastern whip-poor-will. Therefore, it could be assumed that this species' density would be lower than at the core of its range and similar to the density in other sites in northwestern Ontario. However, one of the challenges of surveying rare species is that the effort required to detect their presence is much larger than that needed to detect common species.</p> <p>Here, two passive recorders were used in 2011 to register sounds during the night of June 17, 2011. In 2019, recorders were placed in 8 locations, but the effort is not disclosed in the report. Nevertheless, some critical concerns should be discussed.</p> <p>First, the probability of detection of eastern whip-poor-wills in acoustic surveys is related to moonlight intensity and height over the horizon (Wilson and Watts 2006¹). In addition, the best time to record the presence of this species is during the period leading to the full moon, while the 2011 survey was conducted two days after the full moon. Notably, the report does not describe the environmental conditions during the study needed to evaluate its sufficiency.</p> <p>Second, the use of just two recorders in 2011 is roughly equivalent to sampling only two stations following the eastern whip-poor-will survey protocols, despite recording over extended periods. While in 2019 the effort was presumably greater (effort is not described in the report), the combined effort is low compared to that described in the Birds Canada protocol.</p> <p>¹Wilson, M. D., and B. D. Watts. 2006. Effect of moonlight on detection of whip-poor-wills: implications for long-term monitoring strategies. Journal of Field Ornithology 77:207–211.</p>	<p>Describe the effort used in the 2011 and 2019 surveys. In addition, describe the environmental conditions during the surveys, including the percentage of moon- face illuminated or another measure of moonlight intensity and weather conditions.</p> <p>Present an estimate of the effort taking into consideration the distance of detection of eastern whip-poor-wills.</p> <p>Provide a rationale to justify the levels of effort and the methodology employed in detecting this species.</p>	Wood completed surveys for Eastern Whip-poor-will in 2021 and detected this SAR at two locations. Details are being included in the draft EIS/EA and based on these findings, Additional surveys for this SAR and its habitat are ongoing in 2022.	Appendix P-1 section 3.2.2.1
MON-BL-015	Baseline Terrestrial Biology Summary Report	3.3.2.1 Field Survey - Results - Wildlife - Mammals - Small Mammals	<p>The adequacy of the baseline characterization of the small mammal's community concerns due to the limited effort and the potential for unaccounted experimental error.</p> <p>The catch rates for small mammals using standard trapping methods are</p>	<p>Provide references from comparable studies reporting higher CPUE.</p> <p>Evaluate the sufficiency of the effort employed.</p> <p>Due to the highly dynamic nature of some small mammals</p>	Additional small mammal trapping surveys are ongoing in 2022.	Appendix P-1 section 3.7

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			<p>generally low and must be corrected by the recaptures. For instance, Jung (20162) used an effort of 4,149.5 trap nights to obtain 479 captures from eight species in the Nearctic boreal forest in Yukon. This success equals, roughly, an 11.5% catch rate. However, 229 of the captures corresponded to individuals previously caught. Thus, the estimated CPUE may bias the abundance of small mammals upward if it is not corrected using the recaptures. In this baseline characterization, a total of 44 southern red-backed voles were captured. However, it is unknown how many individuals were recaptured because they were not marked. In addition, because the data presented is disaggregated by dates, it is not possible to estimate by how much the abundance may vary.</p> <p>Experimental error in sampling small mammals must be accounted for when interpreting the results of the baseline studies. For example, weather conditions can strongly influence the CPUE. Many species are more active during dark, cloudy nights when the predation risk is lower. In addition, the use of a single type of trap (Shermans) may result in biased characterizations of the small mammal's community. For example, studies have shown differences between age groups in the success rate of Sherman and tomahawk traps for rodents. Also, the success rate for any given trap type varies with the taxonomy of the target. Thus, differences in captures, such as those shown in 2012, may not reflect differences in species' density. For instance, more masked shrews could have been captured using pitfall traps.</p> <p>2Jung, T. S. (2016). Comparative efficacy of Longworth, Sherman, and Ugglan live-traps for capturing small mammals in the Nearctic boreal forest. <i>Mammal Research</i>, 61(1), 57-64.</p>	<p>communities, an updated characterization is recommended.</p> <p>Some sort of correction should be applied to the CPUE. If new surveys are completed, then mark-recapture protocols should be followed. If not, at a minimum, the data should be presented per night to estimate how significant the recapture bias could be.</p>		
MON-BL-016	Baseline Terrestrial Biology Summary Report	3.3.2.1 Field Survey - Results - Wildlife - Mammals - Bats	<p>There are concerns in the literature about the accuracy of the identification of bat species based on acoustic recordings. These concerns are consistent with some of the findings described in the "Analytical Challenges" section, which indicate that northern myotis and tri- colored bats were misidentified during the surveys.</p> <p>It is difficult to interpret the results because the associated methodology does not specify the effort used in the surveys. In addition, several factors that may affect bat activity, such as temperature, relative humidity, rainfall, wind, and moonlight, are not described as covariates of the surveys.</p>	<p>Include the survey data in the Appendix, including environmental covariates. At a minimum, indicate the ambient temperature during the surveys.</p> <p>Present an estimate of the error in the identification of northern myotis and tri-colored bats.</p>	Comment noted. Wood significantly expanded the bat surveys in 2021 field effort which is being incorporated into the draft EIS/EA and will include the survey data and estimates of error.	Appendix P-1 section 3.5
MON-BL-017	Baseline Terrestrial Biology Summary Report	3.3.2.2 Field Survey - Results - Wildlife - Mammals - Ungulates	<p>The Integrated Range Assessment for Woodland Caribou and their Habitat - Churchill Range 2012 (OMNRF, 20123) indicates that "there seem to be short but distinct migrations to major areas of calving or nursery activity," including Birch Lake. These areas could be regionally significant to caribou persistence in the Churchill range (OMNRF, 2012).</p> <p>The baseline report indicates that calving surveys were conducted in the north basin of Springpole lake and several lakes south of the Project.</p>	<p>We recommend that a study be conducted to evaluate the habitat use in Birch Lake by woodland caribou. If collaring data is available, its use may provide insights into the use of calving areas. In addition, calving surveys should be conducted in Birch Lake, and the target areas should be determined in consultation with OMNRF or MECP.</p> <p>Also include in the report a description of the methodology used in the calving surveys.</p>	A caribou study including a satellite telemetry program is proposed for implementation in February 2022 that would provide information on seasonal and annual range use. As part of ongoing monitoring, the winter aerial survey undertaken in February 2021 is planned to be repeated in February 2022, but with refinements to the geographic extent, based on feedback received. The geographic extent of the RSA includes a block stratification based on Category 1 Caribou (Boreal population) habitat, recent survey	Appendix P-1 section 3.3

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			<p>However, no surveys were completed in Birch lake, closer to the Project than any southern lakes surveyed.</p> <p>Suppose the Project causes a sensory disturbance of regionally significant calving areas. In that case, the logical truth is that the Project may impact the caribou persistence at the range level. Thus, it is essential to clarify two central elements, whether Birch Lake is a significant calving area and the Project can disturb the area or disrupt the migration.</p> <p>3Ontario Ministry of Natural Resources and Forestry. Integrated Range Assessment for Woodland Caribou and their Habitat – Churchill Range 2012.</p>		data (February 2021 winter kernels) and informed by the seasonal kernel data provided by MECP since the February 2021 winter aerial survey. The additional survey work for caribou will include plans to evaluate calving habitat use on Birch Lake.	
MON-BL-018	Baseline Terrestrial Biology Summary Report	3.3.2.2 Field Survey - Results - Wildlife - Mammals - Ungulates	<p>Regarding the spatial and temporal boundaries of the environmental assessment, the EIS Guidelines state that "The proponent is encouraged to consult with the Agency, federal and provincial government departments and agencies, local government and Indigenous groups, and take into account public comments when defining the spatial and temporal boundaries used in the EIS." The spatial and temporal boundaries define where and when the effects of the Project on the VECs are expected to occur. Thus, they inform the collection of baseline data because this will set a benchmark to measure changes in attributes of the VECs.</p> <p>Ecologically, the demographic processes that drive extinction risk occur at the population level. However, it is frequent to replace biological populations with management units of functional nature in wildlife management. For example, in the case of woodland caribou, their populations are managed at the range level. Therefore, to understand the effects of developments on caribou, a benchmark state of the corresponding range should be established.</p> <p>The Project is located in the Churchill range, whose status was assessed in 2012. In the absence of an updated range assessment, the current status should be considered as unknown.</p> <p>The Winter Aerial Surveys conducted in 2011, 2012, and 2020 examined sections of the Churchill range with varying effort. However, given the high mobility of caribou and their unknown detectability in surveys, the extent to which the surveys represent the range-level population status is unknown.</p> <p>The Summary of Winter Aerial Surveys, in turn, states that "MECP was consulted." However, when consulted about MECP involvement in determining the spatial scale of the assessment of caribou, Woods consultants informed that MECP had not been consulted yet.</p>	<p>Clarify whether the spatial and temporal boundaries of the caribou assessment were defined in consultation with MECP and other stakeholders.</p> <p>Provide a rationale to justify the ecological sufficiency of the effort employed in the aerial surveys.</p> <p>Discuss the extent to which the surveys are adequate to assess the range-level status and the shortfalls of the evaluation.</p>	MECP has been consulted on the caribou assessment since February 2021. A caribou study including a satellite telemetry program is proposed for implementation in February 2022 that would provide information on seasonal and annual range use in Churchill, Berens and Kinloch ranges. As part of ongoing monitoring, the winter aerial survey undertaken in February 2021 is planned to be repeated in February 2022, but with refinements to the geographic extent, based on feedback received. The geographic extent of the RSA includes a block stratification based on Category 1 Caribou (Boreal population) habitat, recent survey data (February 2021 winter kernels) and informed by the seasonal kernel data provided by MECP since the February 2021 winter aerial survey. The ongoing monitoring results is used to supplement and support the monitoring efforts carried out by government for the management of caribou at the range level. While this additional information will enhance the data that can be used for the effects assessment for the Project, the current level of data is sufficient for assessing potential effects of the Project in the draft EIS/EA.	Appendix P-1 section 3.3

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ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
MON-BL-019	2018 Existing Conditions Report. Fish Community and Habitat	2.0 Fisheries Resources at the Regional Scale	<p>The report describes Springpole lake as located in the northeastern portion of the Ontario Fisheries Management Zone 4 and part of the Hudson Bay - James Bay watershed.</p> <p>A map of the watershed is not included in the report.</p>	Provide a map of the watershed and depict the flow direction, making it easier to understand the spatial relationships.	A figure showing the watershed(s) is being provided in the draft EIS/EA.	Appendix M-1 Figure 2-1
MON-BL-020	2018 Existing Conditions Report. Fish Community and Habitat	3.1.2 Water Quality	<p>The report describes the analysis of water samples from Springpole obtained during the 2012 baseline environmental monitoring program. The results showed that levels of chromium VI, dissolved mercury, total copper, and dissolved aluminum exceeded the Provincial Water Quality Objectives (PWQO). However, it is argued that the exceedances resulted from sample contamination, and the results are disregarded.</p> <p>The report concludes that "in general terms, the surface water quality in Springpole lake can be described as better than the objectives established by MOECC's PWQO (1999)."</p> <p>It is concerning that the samples presumably contaminated were collected in February, May, and July, suggesting that the contamination episodes occurred on several occasions.</p> <p>Based on the description presented in the report, it is unclear whether the results from the presumably contaminated samples were removed entirely or only the exceedances were excluded. In addition, it is not clear the extent to which the integrity of the samples was compromised.</p>	<p>Explain how the integrity of the samples was compromised. Indicate the number of samples affected and their sampling locations.</p> <p>Remove all of the results obtained from the affected samples, even if the results do not show exceedances.</p> <p>Provide a rationale to justify the use of the 2012 data, despite the samples' compromised integrity.</p> <p>Alternatively, consider removing the data from further analysis.</p>	<p>As described in Section 2.4.1 of the Surface Water Quality Baseline Report, previous consultation with Maxxam Laboratories determined that apparent chromium and mercury exceedances between 2011 and 2013 was due to contamination by an external source through laboratory handling and laboratory error. The determination of laboratory error causing contamination of these samples is further substantiated by results of subsequent years of baseline sampling programs. Mercury and chromium concentrations measured between 2013 through 2020 at these same monitoring locations are all below applicable water quality guidelines. The methylmercury and chromium (IV) samples were collected and analyzed separately from the other analytes. Since there was no indication from the laboratory or the previous consultant that the other parameters had been similarly contaminated, these data were not excluded from analyses. This can be further confirmed by comparing the other parameter data to the 2015-2020 data, which shows that the 2011-2013 data has a similar water quality range for the other parameters. The determination of laboratory error causing contamination of these samples is further substantiated by recent results of the 2021 baseline sampling programs. In 2021 ultra-low detection of total mercury and methyl mercury was added to the baseline monitoring program. Results range from 0.0000025 mg/L to 0.0000238 mg/L, which is below the Canadian Water Quality Guideline value of 0.000026 mg/L for total mercury and confirm that mercury is very low. Thus, total mercury results for the 2011 to 2013 sampling events are not considered representative of baseline conditions of the Project area waterbodies and is not being considered further in the draft EIS/EA.</p> <p>Note, monthly baseline sampling for surface water quality has continued through 2021 and similarly indicated measured concentrations of mercury and chromium are below applicable guidelines, as well as the historical data range of other parameters. These data are being included in the draft EIS/EA.</p>	Appendix N-1 section 3
MON-BL-021	2018 Existing Conditions Report. Fish Community and Habitat	3.1.3 Temperature, Dissolved Oxygen, and pH	<p>This section of the report presents the physio-chemical parameters for basins 1 to 6 of Springpole Lake. In general, this section is inconsistent when presenting measures of central tendency and errors for the parameters measured. For example, dissolved oxygen is reported as a range for the epilimnion and a mean for the hypolimnion.</p> <p>Further, when means are presented, estimates of the errors around them</p>	<p>Report the results consistently, and include error estimates when appropriate (i.e., when presenting estimates of mean values).</p> <p>Discuss how the imbalanced sampling could have affected the physico-chemical characterization of the lake.</p> <p>Fix the content or caption of Table 2.</p>	The 2021 surface water quality sampling program includes a more rigorous sampling design than previously used and is ongoing the 2022 field program to build a comprehensive baseline physicochemical database. The historic data is being compared to more recent baseline data and these results are being consistently reported. A summary using the historic and recent baseline data is being provided in the draft EIS/EA.	Appendix N-1 section 3

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
			<p>are not included. This makes it difficult to understand the results, establish comparisons between layers, and examine the variation in the parameters. For instance, when reporting pH values in the six basins surveyed, only averages are presented.</p> <p>The survey effort (n = 20) was not evenly distributed. Thus, mean estimates for temperature, pH, and dissolved oxygen in Springpole Lake are primarily influenced by the sampling of basins 1, 4, and 5. Table 3 shows that basins 2, 3, and 6, where 15% of the effort was used (3 samples of 20), have pH levels roughly 1 unit larger than any of the other basins in the epi, meta, and hypolimnion. Mean values for temperature and dissolved oxygen are not displayed in a table.</p> <p>Table 2 does not summarize temperature, dissolved oxygen, and pH, as the caption states.</p>		<p>In the Surface Water Baseline Report, variations in the pH, temperature and dissolved oxygen (DO) with water column depth are presented in Appendix 5. Although the error and central tendency is not shown, the summary data is presented at one-metre intervals, and adequately shows the range in values for pH, temperature and DO of the water column.</p> <p>The average temperature, pH and DO for Springpole Lake presented in this section are weighted evenly by each basin. Therefore, no further weighting would affect the physicochemical characterization of the lake. Additional physicochemical characterization of Springpole Lake is presented in the Aquatic Baseline Report</p> <p>The Surface Water Baseline Report adequately documents spatial and temporal variability of surface physicochemical conditions, i.e., characterization of existing conditions within the local area habitat type is sufficient to support the baseline study. As such, no further analyses is proposed.</p> <p>Tables with appropriate captions are being included in the draft EIS/EA.</p>	
MON-BL-022	2018 Existing Conditions Report. Fish Community and Habitat	3.1.4 Fish Community	<p>The sampling effort was much smaller than recommended by the Fall Walleye Index Netting (FWIN) protocol, as the survey was interrupted given the high catch rate for walleye. Consequently, the FWIN survey may not adequately characterize the presence of rarer species.</p> <p>The reporting is inconsistent, as some characteristics are described as a minimum value (i.e., weight of walleye caught), and others as ranges (i.e., fork lengths).</p> <p>A subsection of 3.1.4 compares the results of the FWIN and broadscale surveys. Some similarities between the results were observed, as must have been expected.</p> <p>However, quantitatively, the surveys are not comparable. Thus, it is hard to support the claim that the 2012 survey is a temporal replicate of 2011.</p> <p>It is not surprising that walleye was the most abundant species in both surveys. However, it is remarkable that the CPUE was four times larger in 2011. We could assume that the difference in CPUE was due to using different methods. However, the lack of temporal control makes it impossible to rule out a real change in walleye abundance between the surveys.</p>	<p>Provide a rationale to justify the adequacy of the effort employed, particularly its sufficiency to evaluate the presence of rare species.</p> <p>When presenting results, use consistent descriptive measures.</p> <p>Discuss the limitations of comparing the 2012 and 2011 surveys, considering the use of different survey protocols.</p> <p>Discuss potential causes and limitations to the analysis of temporal changes in the walleye CPUE.</p>	<p>The baseline studies utilized various gill nets mesh sizes (not limited to FWIN-specific nets) to sample various fish species at various life stages, including Lake Trout. The data presented as “FWIN” results were summarized to show the catch relative to the FWIN net sizes and were not intended to replicate a formal FWIN program. Similarly, the use of Broadscale Monitoring net mesh sizes inherently targeted different fish sizes. The baseline data comparison presents the difference in catch relative to protocol-specific gear and supports the characterization of the fish community. These nets include small to extra large sizes as presented throughout the catch summary tables in the baseline report, showing a wide range of catch proportions for a variety of species. As such, these data provide sufficient diversity in mesh size and sample depth to characterize the fish community, including rare species. Additional fish community sampling results have been presented in the 2019-2020 baseline report (Wood 2021), and further studies have been conducted during the 2021 field season. These data are being summarized in the draft EIS/EA.</p>	

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
MON-BL-023	2018 Existing Conditions Report. Fish Community and Habitat	3.2.4 Birch Lake - Fish Community	Baseline data for the fish community of Birch Lake was collected in the summer of 2009 following the OMNRF Broad-scale Monitoring Program. Although some valuable information can be obtained from the data, it is also outdated and unsuitable for assessing the Project's effects on the fish community. Figure 45 does not seem to adequately represent the sex ratios reported for walleye in the report. On page 85 of the report, it is stated that the sex of 256 walleye was classified as unknown. In Figure 45, only a minor fraction of walleye are classified as "Undetermined."	Discuss the adequacy of using the 2009 survey results in Birch Lake to evaluate the Project's potential effects. Verify the data presented in Figure 45.	The NDMNRF have completed three cycles of Broadscale Monitoring (BsM) within Birch Lake (2009, 2014, 2019) that has characterized the fish community as according to the provincially standardized protocol. Additional fish community and tissue sampling has been conducted by Wood during the 2021 field season. The BsM and 2021 results are being summarized in the draft EIS/EA. The Walleye data shown in Figure 45 have been corrected and presented below: [IMAGE]	Appendix O-1 section 4.2
MON-BL-024	2018 Existing Conditions Report. Fish Community and Habitat	3.3 Seagrave Lake	The water quality results show elevated levels of dissolved mercury and chromium VI in one station. These results could be attributed to contamination of the samples, as it is stated in the report. As it was previously mentioned for Springpole Lake, the report should discuss the extent to which the contamination compromises the integrity of the sampling.	Provide a rationale to support the use of the water quality data despite the presumable contamination of some samples. Alternatively, discuss the potential pathways explaining the observed results.	Please refer to the response to Comment #20.	Appendix N-1 section 3
MON-BL-025	2019 – 2020 Aquatic Resources Assessment	1.0 Introduction	The report states that analysis was conducted in 2019 to identify gaps in the aquatic environment's baseline characterization. "The gap analysis showed in general, (that) the aquatic environment was well investigated, and (that) detailed information was collected to characterize most of the waterbodies affected by the main site footprint, as defined pre-2019. These data include representation of small-bodied forage fish (e.g., minnow and shiners) as well as large-bodied recreational and sustenance species such as Lake Trout (<i>Salvelinus namaycush</i>), northern pike (<i>Esox lucius</i>), and walleye (<i>Sander vitreus</i>)." It should be noted that what the report addressed were spatial gaps in the aquatic baseline. However, there is no mention of temporal replication of the surveys. This 2019 - 2020 study and the 2018 baseline did not present in a transparent manner the objective of the surveys, the sampling strategy, the sampling units, and the effort allocation, making it difficult to assess the sufficiency of the studies and their technical merits.	Describe the spatial and temporal gaps in the aquatic baseline that were identified in the analysis cited. Describe measurable objectives for the 2019 - 2020 study, including a detailed methodology and a justification of its adequacy to achieve the objectives. In addition, include a description of the sampling strategy and its supporting rationale, the selection of sampling units and effort, and a quantitative assessment of the achievement of the objectives	The 2019 study design was intended to sample previously unsampled habitats that were within the Project footprint at that time; however, the Project footprint has been optimized and most of these locations are no longer within the footprint. As such, further seasonal sampling is not required at some locations. Similarly, the 2020 study design was not intended to sample the entirety of Springpole Lake. As noted in the Aquatic Resources Assessment Report (see Section 2.1, bullet #5; Wood 2021), the objective was to sample fish habitat and fish community near a candidate treated effluent outfall location. Since the completion of the 2020 studies, the proposed discharge location has been re-evaluated and the new location is proposed for the southeast arm of Springpole Lake. The 2019 and 2020 fisheries data will contribute to the overall baseline fish habitat and fish community dataset. Further, fish community and habitat data have been collected during the 2021 season and these results are being summarized in the draft EIS/EA. Additional fisheries resource studies are planned for 2022 to address feedback received during consultation during the environmental assessment process.	
MON-BL-026	2019 – 2020 Aquatic Resources Assessment	2.1 Methodology - Assessment Overview	In the 2019 - 2020 Aquatic Resource Assessment, several methods were used to characterize the fish communities. The sampling of many lakes and streams may have been done justifiably using different techniques. However, it is concerning that Springpole Lake was surveyed using different methods from previous studies (i.e., 2018 Fish Community and Habitat Existing Conditions Report).	Provide a rationale to justify the selection of the survey protocols used.	As noted in the response to comment #25, the sampling conducting during the 2019 – 2020 surveys were not collected for direct comparison to the previous studies. The 2019 – 2020 studies were conducted to address gaps in the baseline data set due to changes in the Project design. Although the existing information is sufficient to make predictions for the EIS/EA, Wood has engaged	Appendix O-1 section 2.3

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
			<p>While this is not a severe flaw, because the sampling stations were new for 2019-2020, different methods make comparisons between surveys difficult.</p> <p>Why wasn't the Broadscale netting protocol used for the summer survey of Springpole Lake in 2019?</p>		<p>NDMNRF, and plans are being prepared to conduct a supplemental fish community and population study during the 2022 field season, following a standardized provincial protocol, as part of ongoing monitoring.</p>	
MON-BL-027	2019 – 2020 Aquatic Resources Assessment	2.1 Methodology - Assessment Overview	<p>The report indicates that "Multi-season inland waterbody condition assessments" were conducted in 2019. This statement is misleading. In a multi-season sampling, each unit would be surveyed in two or more seasons.</p> <p>Instead, surveys were conducted in different seasons, but each unit was studied a single time.</p> <p>The EIS Guidelines require characterizing the seasonal variation in aquatic resources (e.g., benthic communities, feeder species, aquatic plants). The benthos, for instance, was only sampled during the fall sampling programs.</p>	<p>Describe how the seasonal variation in aquatic resources will be characterized, as required by the EIS Guidelines.</p>	<p>Multi-season sampling has occurred during the 2021 field assessment, and further studies are planned for 2022 as part of ongoing monitoring to supplement seasonal sampling at some locations. In addition, primary production assessments for phytoplankton and zooplankton were included in 2021 at six locations within Springpole Lake and two locations in Birch Lake. Benthic invertebrate sampling also occurred in the fall of 2021 at the same locations, as well as inland waterbodies that were previously unsampled. The 2018 to 2021 aquatic assessments sampled benthic invertebrates in the fall, consistent with federal and provincial biomonitoring study programs (e.g., CABIN, BC MOE, FIRNNO, MMEEM) which recognize late summer and fall as the best period for sampling for the following reasons:</p> <p>Most taxa in the benthic community are in an aquatic life stage during the fall;</p> <p>Many taxa are at a stage in their life cycle that is advanced enough to be collected by standard equipment and identified to levels of appropriate taxonomic resolution;</p> <p>Stream flows are lowest of the year (allows for safe sample collection); and</p> <p>The low water levels mean that the substrate below the wetted stream channel is stable habitat and not the result of peak flow rates (e.g., spring) that create ephemeral aquatic habitats in areas that become stream banks during low flow periods.</p> <p>As such, seasonal collection and variability of benthic invertebrates is not planned for this Project; however, the robust data set collected in the late summer and fall period allows for the assessment of changes to the benthic invertebrate community associated with potential mine-related impacts.</p> <p>Follow-up sampling is planned for 2022 due to in-field access limitations to some locations associated with the 2021 forest fires.</p>	Appendix O-1 section 2.1

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
MON-BL-028	2019 – 2020 Aquatic Resources Assessment	2.1 Methodology - Assessment Overview	<p>The nomenclature used for the sampling stations is inconsistent, making it very difficult to examine the results of the Aquatic Resources Assessment 2019-2020. For instance, Figure 2-1 shows the locations of the 2020 sampling locations, as per the title of the figure. Four sampling locations are shown in Springpole lake, named "Springpole Lake," "L-15", "L-15 S", and "L-15 D".</p> <p>In contrast with Figure 2-1, Table 2-1 shows one sampling location for Springpole Lake in 2019 ("Springpole Lake (L-15)"), and two in 2020 (L-15 (nearshore) and L-15 (mid-basin).</p> <p>Further, Table 2-2 shows the methods used in 2019 and 2020 for the aquatic assessment. This table shows two locations in Springpole Lake, named "Springpole Lake" and "Springpole Lake (L-15)."</p> <p>The confusing nomenclature that is used makes it impossible to evaluate the results of the aquatic assessment adequately.</p>	Verify that the nomenclature of the sampling stations and the contents of the related tables and figures are correct. If so, consider revising the nomenclature to facilitate the understanding of all audiences.	Springpole Lake is identified as L-15, with the "L-15-S" sample ID synonymous with the nearshore locations, and "L-15-D" sample ID correlating to the mid-basin (deep) sample locations, as per the previously proposed outfall location study. All recent data collection utilizes the L-15 sample ID for baseline data collection within Springpole Lake and is being summarized in the draft EIS/EA.	Appendix O-1 section 2.1
MON-BL-029	2019 – 2020 Aquatic Resources Assessment	3.0 Results	<p>The report states that "Multi-season inland waterbody existing conditions assessment (2019)" are presented. However, this statement could be misleading, as some sampling stations in 2019 were surveyed during a single season. Specifically, "Birch River" and "UNX07" were only studied in the summer of 2019.</p> <p>Further, the quantitative results of surveys conducted in different seasons may not be directly comparable, as different sampling methods were used. For example, Table 2-2 indicates that the sample location "Springpole Lake (L-15)" was surveyed in the summer of 2020 through electrofishing, gillnetting, and trapping. In contrast, the exact sampling location was studied in the fall of 2020 through angling, gillnetting, and trapping.</p> <p>Thus, while the results of both surveys may be qualitatively similar, the use of different methods introduces a source of variation that is not accounted for. Therefore, analyses of the seasonal variation of the fish communities should be interpreted cautiously.</p> <p>Regarding the benthic communities, all the sampling stations were surveyed during the fall of either 2019 or 2020.</p>	<p>Specify which waterbodies were surveyed during multiple seasons and which were not.</p> <p>Discuss the limitations of the surveys imposed by the lack of seasonal representation, when appropriate, and the use of different methods.</p> <p>Although it could be of limited use, consider discussing the results obtained using the same catching techniques.</p>	A summary of the sample locations, sampling effort type and sampling season is being presented in the draft EIS/EA. The additional sampling that occurred during the 2021 field season within Springpole Lake, Birch Lake and previously unsampled inland waterbodies is also being summarized in the draft EIS/EA.	Appendix O-1 section 3
MON-BL-030	2019 – 2020 Aquatic Resources Assessment	4.0 Discussion	Section 4.0 Discussion of the report does not adequately discuss the 2019-2020 Aquatic Resources Assessment results. Instead, it reiterates the results.	<p>Discuss the results in a local and regional context. Address potential limitations or shortfalls of the study, compare its results with those obtained from previous studies, at a minimum.</p> <p>Indicate whether changes in the location of the proposed effluent discharge further downstream will be addressed in subsequent studies. If so, consider the technical comments included in this review when planning the studies.</p>	The results of the baseline studies, including the 2019 to 2021 studies is being summarized in the draft EIS/EA. This includes additional information collected at the location of the proposed treated effluent discharge, in the southeast arm of Springpole Lake. Supplemental information is being considered in future studies and as a result of input received on the baseline studies.	Appendix O-1 section 3

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MON-BL-031	2019 – 2020 Aquatic Resources Assessment	Appendix A	Tables A 1.2 and others that include the Catch per Unit of Effort (CPUE) do not have the units of effort. The values presented correspond to catches per minute of effort, while the effort is reported in seconds.	Indicate the units of effort for CPUE and present a consistent measure of effort (Duration) in the table.	The summary of CPUE is being presented in a consistent manner for inclusion in the draft EIS/EA.	Appendix O-1 Attachment B
MON-BL-032	2019 – 2020 Aquatic Resources Assessment	Appendix A	<p>Figure A 1.2 shows a histogram of the relative frequency of yellow perch length classes during the falls of 2019 and 2020 and the summer of 2020. Some critical issues to consider and discuss were not presented in the discussion in section 4.0.</p> <p>The length-class distribution of the sample during the fall of 2019 is markedly different from the one observed in fall 2020. In the fall of 2019, all of the individuals sampled were between 40 and 60 mm in length approximately. In contrast, in the fall of 2020, all individuals were between 80 and 180 mm in length. Is this interannual variation caused by experimental variation due to different sampling methods being used, or does it reflect a shift in the population's age structure? For instance, similar results could be caused by low reproductive success in 2019 or high mortality of young-of-the-year in 2020.</p> <p>However, the summer of 2020 showed a broad distribution of length classes, distinct from that observed in the Fall of 2020. This variation suggests that the observed variation between surveys may be a consequence of methodological differences between them.</p>	Discuss the results in section 4.0, considering the methodological differences between the surveys, the limitations of the surveys, and potential interpretations of the results, when adequate.	Further discussion of results and comparison to the 2021 field data is being prepared for the draft EIS/EA.	Appendix O-1 section 3
MON-BL-033	2019 – 2020 Aquatic Resources Assessment	Appendix B	<p>Figure B 1.2. shows the relationship between the total length of northern pike individuals and methyl-mercury and total mercury. Both plots display trend lines when, in fact, the R² values are low. Thus, the trend lines are misleading in suggesting a relationship that is not supported by the data.</p> <p>A similar issue is observed in figure B1.4, which shows a trend line for the relationship between age and total mercury content in the northern pike. Again, the trend line suggests the occurrence of a relationship that is non- existent based on the data displayed.</p>	Remove the trend lines from the plots or provide a rationale to support their inclusion.	Acknowledged. The recommendation is being considered for future data presentation in the draft EIS/EA.	Appendix O-1 Attachment B
MON-BL-034	Atmospheric Environment: Interim Baseline Air Quality Summary Report	1.1. Background	<p>The Background states, "...the Project will also be subject to an Individual EA under the Ontario Environmental Assessment Act. The Terms of Reference, which guides the preparation of the EA under the Ontario EAA, was not approved at the time this report was prepared."</p> <p>In Ontario, typically ambient air monitoring programs, whether voluntary, required for environmental compliance, determining background concentrations of contaminants as part of an Environmental Assessment (EA), or in support of an EA or that generate air quality data which will be presented to health units and the public of Ontario, are governed by the requirements of the Operations Manual for Air Quality Monitoring in Ontario (Manual), published by the Ontario Ministry of the Environment and Climate Change. The original document was published in 2003 as the Operations Manual for Point Source Air Quality Monitoring. The 2008 version was revised in 2018.</p>	Provide insight into whether or not the Ministry was consulted in the development of the ambient program.	The 2021 Baseline Air Quality Monitoring Plan was reviewed by MECP and revised prior to installing the equipment for the expanded monitoring program.	Appendix G-1 section 1

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			<p>The requirements set out in the Manual are considered minimum requirements to satisfy the Ministry that the quality of data being collected from monitoring programs is acceptable.</p> <p>It is unknown if the Ministry was approached during the development of this ambient program. The Manual is referenced in Section 5.0 of the Summary Report, however.</p>			
MON-BL-035	Atmospheric Environment: Interim Baseline Air Quality Summary Report	2.1. Ambient Air Quality Monitoring Methodology - General	<p>The report mentions, "Due to the remote nature of the Project, baseline sources of DPM, CO, and VOCs are considered negligible and were not monitored as part of the baseline study."</p> <p>DPM, CO, and VOCs are parameters of focus according to the EIS Guidelines. By saying that these are considered negligible, is the report stating that the baseline values for these parameters are assumed to be 0 µg/m³?</p> <p>When comparing the post-development air quality parameters to the baseline levels, will DPM, CO, and VOCs be measured? If so, will they be compared to an assumed baseline level concentration of 0 µg/m³?</p>	<p>Provide additional clarity on the assumed baseline concentration values for DPM, CO, and VOCs.</p> <p>Clarify if these parameters will be monitored upon completion of the Project.</p>	<p>More detailed quantitative and qualitative baseline information is being provided in the draft EIS/EA. Further description of the baseline/existing conditions, including the assumed baseline concentration values for DPM, CO, and VOCs, is being prepared to address the contaminants identified by Health Canada's Guidance for Evaluating Human Health Impacts in Environmental Assessment: Air Quality (2017) and the EIS Guidelines.</p> <p>A summary table of baseline air quality concentrations, along with the rationale for the selection of the baseline concentrations is being prepared for the draft EIS/EA.</p> <p>As air emissions and air concentrations will cease upon completion of the Project, there will be no residual effects to measure or compare against baseline.</p>	Appendix G-1 section 3
MON-BL-036	Atmospheric Environment: Interim Baseline Air Quality Summary Report	<p>2.1. Ambient Air Quality Monitoring Methodology - General and</p> <p>3.1. Ambient Air Quality Results - National Air Pollution Surveillance Program</p>	<p>The methodology states, "To supplement the onsite data, regional data were analysed for NOx, O3, and PM_{2.5}." As such, National Air Pollution Surveillance Program (NAPS) data for Thunder Bay and Winnipeg were used for these parameters.</p> <p>Section 4: Summary states, "These elevated NOx levels are not altogether unexpected as both of these NAPS stations are within the boundaries of a city (Winnipeg and Thunder Bay), which would typically see higher levels of motor vehicle traffic, which is the main source of NOx."</p> <p>The values of NOx, O3, and PM_{2.5} would be higher from the NAPS datasets gathered from Thunder Bay and Winnipeg than would be found in the remote area where the proposed Project is located. How should the NAPS datasets be interpreted to accurately reflect baseline concentrations of these three parameters at the site location? Should there be an adjustment factor of the annual mean concentrations best suited to represent the remote area concentrations? Could alternative remote locations of similar boreal forest environments be used to model a dataset appropriate for evaluating such concentrations?</p>	Provide an analysis of how the results of the urban NAPS datasets should be interpreted if they are to represent a baseline concentration of NOx, O3, and PM _{2.5} for the remote location of the proposed Project.	<p>Three to five years of data are being used from the two referenced NAPS stations to establish regional baseline concentrations. The long-term monitoring data collected at these stations is considered robust.</p> <p>The NAPS locations are reflective of regional air quality that is influenced by long range transport. The use of this data for the Project is considered to be a conservative approach, due to local influences of the populated areas surrounding the NAPS stations.</p> <p>The onsite data collected in the 2021 baseline air monitoring program is being provided for comparison against the regional NAPS data including a discussion on the difference in air quality between urban and remote areas.</p>	Appendix G-1 section 3, 4
MON-BL-037	Atmospheric Environment: Interim Baseline Air Quality Summary Report	2.2.2.1. Ambient Air Quality Monitoring Methodology - General	<p>" The TSP filter was also analyzed by inductively coupled plasma mass spectrometry ("ICPMS") to determine total metal concentrations."</p> <p>There is very little explanation of the method or methodology behind the calculation and determination of metal concentration.</p>	Include methodology or rationale to explain the process of determining metal concentrations, including why the ICPMS was used. Add a reference to the Appendix for ALS Test Method and results.	<p>The 2021 baseline monitoring included the measurement of suspended particulate and metals concentrations using hi-vol sampling, with suitable lower detection limits for metals.</p> <p>Where onsite metals are present in concentrations below the detection limit of the hi-vol sampling method, either ½ the</p>	Appendix G-1 section 3

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
					detection limit is be used or an appropriate alternate method to quantify the baseline is be used (e.g. literature, speciation of particulate matter). The ICPMS method is used by the laboratory to analyse the particulate collected by hi-vol sampling for the metal constituents.	
MON-BL-038	Atmospheric Environment: Interim Baseline Air Quality Summary Report	2.3.1. Ambient Air Quality Monitoring Methodology - General	As seen on page 8 of 20, Table 2.3.1 identifies the Canadian Ambient Air Quality Standards (CAAQS) for PM _{2.5} , O ₃ , and NO ₂ . However, the CCME includes SO ₂ as a parameter with CAAQS Limits. Why is the SO ₂ CAAQS limit not included?	Include reasoning why SO ₂ is the only parameter with a CAAQS limit that is not included and compared to the AAQS.	The 2021 baseline monitoring included additional passive monitoring with longer exposure times (30-days) to support more accurate measurement of the SO ₂ concentration for longer averaging times. Note, there is both a Canadian Ambient Air Quality Standard (CAAQS) and an Ontario Ambient Air Quality Criterion (AAQC) for the annual averaging time. Further, the continuous monitoring of SO ₂ at the NAPS station in Winnipeg, with hourly data, is available for the past several years. This data is being summarized in the draft EIS/EA and being used as representative of the regional baseline SO ₂ concentrations for the shorter (1-hour, 24-hour) averaging times. This data is being used to inform the decision on the appropriate baseline concentration for the annual averaging time and is being included in the draft EIS/EA.	Appendix G-1 section 3
MON-BL-039	Atmospheric Environment: Interim Baseline Air Quality Summary Report	2.2.2. Onsite Air Quality Monitoring	Typically, all ambient sampling programs in Ontario follow the sampling schedule provided by the federal National Air Pollutant Surveillance (NAPS) monitoring program. From a cursory review of the field data sheets, the particulate matter sampling followed the six (6) day cycle consistent with the 2020 NAPS monitoring program except for the following dates: August 29, 2020; September 16, 2020; and October 28, 2020. No sampling was performed on October 15, 2020. All sampling performed in December was conducted a day earlier than the NAPS schedule but followed a six (6) day cycle. This may not necessarily invalidate the data, but the NAPS schedule should be followed as closely as possible.	Clarify why some sampling dates were not sampled on specified program dates.	The baseline air quality monitoring program was established in 2020 at the remote Project site. Baseline data has been collected since that time, using the same sampling equipment to the extent possible, however improvements in the sampling program have been made to improve the data being collected. The 2021 baseline monitoring program is collecting samples on a 6-day NAPS schedule.	Appendix G-1 section 3.1
MON-BL-040	Atmospheric Environment: Interim Baseline Air Quality Summary Report	2.2.2.1. TSP and Metals, PM ₁₀ , and PM _{2.5} Instrumentation and Sampling Methodology	The report states, "Due to the lack of electricity at the site, the Ontario Ministry of Environment, Conservation, and Parks ("MECP") reference method samplers for TSP, PM ₁₀ , and PM _{2.5} could not be used. Instead a MiniVol™ Tactical Air Sampler ("MiniVol") was used for each particle size (i.e., TSP, PM ₁₀ , and PM _{2.5})." As stated in the Manual for the Tactical Air Sampler, there are various recognized methods to measure pollutant concentrations in air. Analyzers that satisfy the requirements of the United States Environmental Protection Agency (US EPA) as equivalent or as reference methods for ambient air monitoring should be selected where possible.	Confirm that the Ministry was consulted and that this methodology and equipment were approved in this ambient sampling program.	The 2021 Baseline Air Monitoring Plan was reviewed by MECP and revised prior to installing the equipment for the expanded monitoring program. The 2021 monitoring included a reference method high volume sampling for suspended particulate, as well as continuous PM ₁₀ and PM _{2.5} sampling. In addition, the MiniVols installed in 2020 continue to operate, as noted in the 2021 monitoring plan.	Appendix G-1 section 3.1

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

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			<p>In certain situations, taking practical circumstances and limitations into consideration, the Ministry may consider variations to monitoring criteria. However, any such deviations from the Manual must be approved by, and completed in consultation with, the Ministry.</p> <p>As stated in the MiniVol™ TAS's Operation Manual provided in Appendix A of the Summary Report, "While not a reference method sampler, the mass concentrations of the MiniVol™ TAS gives results that closely agree with reference method concentrations. Both accurate and precise, the battery-operated, lightweight MiniVol™ TAS is ideal for sampling at remote sites or areas without power."</p> <p>It is unknown if the Ministry was consulted concerning alternate sampling methods.</p>			
MON-BL-041	Atmospheric Environment: Interim Baseline Air Quality Summary Report	2.2.2.2. Total Dustfall Instrumentation and Sampling Methodology	<p>The report states, "Total dustfall (total particulate) was measured according to the procedures outlined in MECP, 2018a."</p> <p>This is a standard method for collecting and measuring depositional particles in the air.</p> <p>Dustfall jar sampling appears to have followed a monthly schedule, although it is unclear what the actual sampling time was from the dates on the field data sheets for August – September.</p> <p>As stated in the Summary Report, the dust fall jar set up on December 1, 2020, was not collected until January 22, 2021.</p>	Identify actual sampling times and dates for dust fall jars.	Acknowledged. The baseline dustfall data summarized in the Interim Baseline Air Quality Report (February 2021) does not include data for December 2020. The draft EIS/EA is being prepared to include a summary of baseline dustfall data where the 30-day exposure period is validated.	Appendix G-1 section 3.1.4
MON-BL-042	Atmospheric Environment: Interim Baseline Air Quality Summary Report	3. Ambient Air Quality Results	<p>Based on a cursory review of the data tables, data that did not meet specific sampling criteria was flagged appropriately.</p> <p>Where results were less than analytical method detection limits, one-half the detection limit was used. This is consistent with QA/QC procedures in the Manual.</p> <p>Section 3.2.1 of the Summary Report discusses the validity of the particulate matter data with respect to sample time. However, this is only one (1) of several QA/QC criteria that need to be met to consider the data valid.</p> <p>From the Manual, the following general rules apply to editing non-continuous data:</p> <p>A monthly sample is considered to be valid if the exposure period is within +/- 5 days of the 30 days (calendar month); it is also desirable to have the 'on' and 'off' dates as close as possible to the start and end of a calendar month to minimize uncertainty in the determination of the exposure month.</p>	<p>Future ambient programs should consider the relevant sections of the Manual. The Manual includes the following topics:</p> <ul style="list-style-type: none"> – Quality Assurance/Quality Control (QA/QC) Guidance – Data validation and editing – Requirements for reporting monitoring and sampling results to the Ministry – Station and Probe Siting Criteria – Standard Operating Procedures (SOPs) for continuous monitoring and non-continuous sampling methods <p>Section 1, QA/QC Guidelines, discusses monitoring and QA/QC objectives, the QA/QC program, monitoring plan, site selection, measurement methods, and operating specifications, sampling system requirements, site and analyzer operation, calibration and reference standards, the Ministry's audit program, station and instrumentation, and laboratory selection and analytical testing.</p> <p>Section 2, Data Validation, discusses date and time stamping, Method Detection Limit (MDL), meteorological data, and data editing and validation protocols for continuously monitored and discretely</p>	<p>A 2021 Baseline Air Monitoring Plan was reviewed by MECP and revised prior to installing the equipment for the expanded monitoring program.</p> <p>The ongoing sampling program adheres to the requirements of the MECP Operations Manual where it is technically feasible to do so, given the remote location of the monitoring equipment.</p>	Appendix G-1 section 3.1

Table C-5.1: First Mining Gold Responses to Mishkeegogamang Ojibway Nation Comments on the Baseline Study Reports

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			<p>The tolerance limit for editing daily parameters is $\pm 10\%$ of the airflow calibration standard.</p> <p>A daily sample is considered valid if the sampling period is within $\pm 10\%$ of the required 24 hours, that is, from 21.6 to 26.4 hours. Additionally, for TSP and PM₁₀ hi-vol samples, the air volume sampled over this period must be within $\pm 10\%$ of the required theoretical total air volume of 1631 m³, that is, from 1468 m³ to 1794 m³. For PM_{2.5} samples collected with a discrete sampler operating with a flow rate of 16.7 liters per minute, the air volume sampled over 24 hours must also be within $\pm 10\%$ of the required theoretical total air volume of 24 m³, that is, from 21.6 to 26.4 m³.</p> <p>A valid annual arithmetic or geometric mean requires at least 75% of the total number of possible samples under the relevant sampling frequency to be valid. Hence, for monthly sampling, at least nine (9) months of valid data are required, whereas, for daily sampling, the following number of valid 24-hour sample results are required: Sampling schedule Number of valid samples required Every 3rd day 90 Every 6th day 45 Every 12th day 23</p> <p>For calculating quarterly or seasonal means, at least 75% of valid data for each quarter or season of the year must be available.</p> <p>All edits of non-continuous data must be reported to the Ministry in an edit log table.</p>	<p>sampled parameters.</p> <p>Section 3, Data Reporting, discusses various reporting requirements for monitored data, including exceedance reporting, data reporting requirements for emitters and other agencies, and public reporting requirements.</p> <p>Section 4, Air Quality Monitoring Data Collected by Emitters, outlines requirements for emitters that collect air monitoring data as part of the Source Emissions Monitoring (SEM) program or as a condition of an Environmental Compliance Approval (ECA), an order, or other legal instruments.</p> <p>Section 5, Station and Probe Siting Criteria guides the selection of sites to meet the objectives of the monitoring program. It also provides guidance and requirements for the proper location, and design and construction, of inlet probes for the parameters listed in the Manual.</p> <p>Section 6, the SOPs, provide minimum performance specifications. The SOPs briefly describes, on a parameter by parameter basis, the US EPA designated reference methods, equivalent methods and available reference documents from various agencies, non-designated monitoring methods accepted by the Ministry, the minimum service, operation and maintenance requirements, instrumentation QA/QC requirements (internal and external performance checks), and audits by the Ministry. The SOPs are not intended to provide a detailed description of monitoring/sampling methods: Emitters and site operators need to review the method reference documents for detailed method descriptions.</p> <p>Confirm if all edits of non-continuous data were reported to the Ministry in an Edits Log table.</p>		
MON-BL-043	Atmospheric Environment: Interim Baseline Air Quality Summary Report	3.2.1 Onsite Air Quality Monitoring Data - TSP and Metals, PM ₁₀ and PM _{2.5}	Table 3.2.1 Note 20 states: "Italics indicate result was non detect (concentration calculated using 1/2 of the detection limit)". The majority of the data listed in this table are in italics, indicating that the parameter's concentration was below the sampling instrument's detectable limit. For the same parameter with a below detectable limit value, the reported concentration values are different across different sample dates. How are these numbers calculated to be different if they use 1/2 of the detection limit from what is presumably a static detection limit for a given parameter?	Provide sample calculations for parameters with field measurements below the detectable limits of the sampling. Explaining how these "1/2 detection limit" values differ across sample dates would also be appreciated.	<p>The draft EIS/EA is being prepared to include a summary of baseline data that has been validated with the applicable detection limits stated.</p> <p>The detection limits for each metal are reported by the laboratory in micrograms (µg) and vary for each metal species. The detection limits are cited in the ALS Environmental Analytical Reports appended to the Interim Air Quality Baseline Report. These reported detection limits were used in conjunction with the total sample volume to establish the detection limit specific to each metal in each sample collected.</p>	Appendix G-1 section 3.1
MON-BL-044	Atmospheric Environment: Interim Baseline	General Comment	This report is an interim report. It has been communicated that the Draft EIS/EA will be available to review in Q1 2022.	Comments on the final report's recommendations and conclusions will be issued when it becomes available.	<p>The baseline air quality monitoring program is ongoing.</p> <p>A quantitative and qualitative summary of baseline data from the</p>	Appendix G-1 section 6

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	Air Quality Summary Report				onsite monitoring and the regional NAPS stations is being provided in the draft EIS/EA	
MON-BL-045	2021 Sound and Vibration Baseline Report (Leaves-Off and Leaves-On)	General	Sound and vibration monitoring was conducted at two (2) selected locations from April 15 to 22 and June 22 to 29, 2021. The baseline studies aimed to determine the baseline sound and vibration levels near the monitoring locations. It is agreed with the methodology and conclusions.	Not Applicable	Noted.	Appendix H-1/H-2 section 3
MON-BL-046	2021 Sound and Vibration Baseline Report (Leaves-Off and Leaves-On)	Monitoring Locations	As per the Figures titled "Baseline Sound and Vibration Monitoring Locations (Leaves-On Program)" and "Baseline Sound and Vibration Monitoring Locations," two locations SP1 and SP2, were selected for sound/vibration monitoring. Locations SP1 and SP2 are located to the northwest and south of the Project Location, respectively. However, the Figures also showed potential receptors (e.g., Site 1, Site 2, and Site 3) closer to the Project Location than the monitoring locations SP1 and SP2. Therefore, it is not clear why monitoring was not conducted at those potential receptor locations.	Explain why closer sites (Site 1, Site 2, and Site 3) were not selected for the noise and vibration monitoring.	These sites (Site 1, Site 2, and Site 3) have been identified as being within the mine site footprint based on the current design concept. These sites are not considered receptors for the noise and/or vibration impact assessment and were therefore not selected for the baseline monitoring. It is noted that the monitoring was conducted in a remote area where the existing acoustic environment is dominated by natural sounds.	Appendix H-1/H-2 section 3
MON-BL-047	2021 Sound and Vibration Baseline Report (Leaves-Off and Leaves-On)	Monitoring Results	The May 2021 Report stated that the average hourly Laeq-1hr levels were under 35 dBA and 25 dBA during daytime and nighttime, respectively. The average Ldn levels were lower than 40 dBA. The August 2021 Report stated that the corresponding levels were under 45 dBA and 35 dBA. The average Ldn levels were lower than 50 dBA. There was approximately a 10 dBA difference between the two reports. However, it is not clear the causes for the differences.	Provide explanations/rationale as to why there were significant differences in the monitored sound levels between the two reports.	The monitoring was conducted in a remote area without any significant industrial noise sources, and the existing acoustic environment is dominated by natural sounds. The difference between the sound levels measured during the leaves-off (winter condition) and leaves-on (summer condition) programs is attributed to the seasonal variation.	Appendix H-1 section 5
MON-BL-048	2021 Sound and Vibration Baseline Report (Leaves-Off and Leaves-On)	Seasonal Effects	The monitoring was conducted in the early spring and summer months in 2020. Our opinion is that the monitoring might have included the contamination from the sound of nature (e.g., insects and birds, etc.). As a result, the seasonal effects might have overestimated the ambient background sound levels. This would result in the underestimation of the project noise/vibration impacts on the surroundings. If the above seasonal effects contaminated the monitoring, the monitoring results should be adjusted accordingly. Alternatively, monitoring may be conducted in winter or fall months when these seasonal effects are minimal.	Verify the monitoring results and adjust the results to exclude the seasonal effects. Alternatively, monitoring may be conducted in winter or fall months when the seasonal effects are minimal.	The leaves-off monitoring program was conducted under winter conditions with the presence of snow, as illustrated in the report. The weather data included with the detailed noise monitoring results also provides evidence of the seasonal condition.	Appendix H-1/H-2 section 3
MON-BL-049	Hydrogeology Baseline Report 2020.	2.6: Role of Lake Sediments controlling Shallow flow system recharge. Pg. 84 (pg. 2-6)	Regarding sediments in Jamie Lake (TMA area), the report states, "Collection of piston cores from the lake ice cover can confirm the presence and permeability characteristics of the lake bottom sediments." It is noted that the presumed low permeability of the lake sediments is forwarded as an impediment to recharge from potential tailings derived impacts. If the lake sediments are invoked as a natural barrier or protect against potential impacts to the fractured bedrock system below the lake sediments, this should be investigated/proven.	Confirm if this investigation is planned (or completed). If completed, do the results reflect the expected low permeability?	Laboratory permeability testing was conducted on two lakebed sediment samples and reported by Tetra Tech (2019). Both tests resulted in very low permeability values (less than 10-8 m/s).	Appendix L-1 section 5
MON-BL-050	Hydrogeology Baseline Report 2020.	Appendix A FracFlow report 2.6: Role of Lake Sediments	Table 2.1 reports K values in cm/s, whereas Table 2.2 and 2.3 report K values in m/s. While it is noted that the Hazen equations use d10 in cm, the overall range of values in the tables appear more similar than expected with m/s. Are the units listed incorrectly? The author does note	Confirm hydraulic conductivity units and values for Table 2.1. Use consistent units throughout the report.	The values/units in Table 2.1 of Appendix A are computed/tabulated correctly. The Hazen method is used to estimate the permeability of soils with sand-sized particles (i.e., generally coarser than those from test pits presented in Table 2.1,	Appendix L-1 section 5

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		controlling Shallow flow system recharge. Pg. 84 (pg. 2-6)	that the Hazen approach has some limitations and should be considered an approximation.		which typically contain higher proportions of fines). As such, the Hazen method estimates presented in Table 2.1 are only considered to be screening level estimates and have, therefore, been excluded from the main body of the baseline report.	
MON-BL-051	Hydrogeology Baseline Report 2020.	Appendix A FracFlow report 6.2: Long-Term Aquifer Test. Pg. 195 (pg. 6.3)	The drawdown observed during the long-term pumping test elongated towards the northeast (Fig 6.9). Yet, that area is indicated as being outside the proposed open pit area and inferred to be host rock opposed to the more fractured deposit. Additionally, as shown in Figure 5.9, the more substantial fracture zones do not intersect this area. The drawdown does not appear to extend SE significantly towards the lake in what is reported to be the much higher fractures (this high K) Potage Zone deposit lithology.	Provide additional interpretation or hypothesis on the shape and orientation of the observed drawdown.	<p>The plotting convention for drawdown in this figure was taken by projecting the closest point from the observation wells in the horizontal plane (i.e., the depth of the observation point was not directly taken into account). The yellow points in the figure show the reference point for contouring, while the white/blue dots show the location of the well head.</p> <p>The northeastward elongation of drawdown in Figure 6.9 of Appendix A is produced primarily by the observation in SGH20-005. Also, the observation of 4.3 m drawdown in BL-024 is plotted at the very bottom of the hole; however, it is possible that the response in this borehole is governed by shallow fractures (i.e. more southward) which, if replotted with the yellow dot closer to the wellhead, would extend the interpolated drawdown southward.</p> <p>In addition, it is expected that boreholes that are closer to either Springpole or Birch Lake would shown less of a response due to a hydraulic boundary effect.</p> <p>Finally, ATV logging of SPW20-001 showed a prevalence of north to northeastward dipping fractures dipping at approximately 39 degrees, which is generally consistent with observations from other boreholes drilled nearby and around the perimeter of the open pit, except that some holes also show a prevalence for sub-horizontal fractures (e.g. SGH20-0007). This may explain the apparent northeastward extension of drawdowns, but is predicated on there being preferential NE-SW permeability vs. NW-SE.</p>	Appendix L-1 section 2
MON-BL-052	Hydrogeology Baseline Report 2020.	7.0 Hydrogeological Conceptual Model. Pg. 47	With respect to the host andesite, where RQD decreases with depth and flow in this unit is expected to be predominately in the upper shallow fractured bedrock, it would be helpful to provide more detail on the estimated thickness of this section as it will be the system where groundwater will migrate into the pit thus having important implications on dewatering requirements at various time stages. Also, much of the hydraulic conductivity data for bedrock does not isolate only the shallow fractured bedrock. Suppose it is possible to estimate the thickness of the more shallow fractured rock. In that case, a subset of K data could be tabulated for the reader.	Can a depth (or thickness) of shallow, more fractured host rock be estimated? If so, can K values for that hydrostratigraphic unit alone be tabulated against the deeper low RQD / Low K results?	Limited information is available on the vertical distribution of bedrock K values within the host rock zone. However, a site investigation program is currently underway to address this specific question. This information is being tabulated and interpreted for inclusion in the draft EIS/EA.	Appendix L-1 section 5
MON-BL-053	Surface Water Quality Baseline Report Cumulative (2011 - 2020)	2.3 Sampling Methodologies	Surface water sampling has been conducted by several sub-consultants (DST, North Rock, FractFlow), and minor differences in sampling methodology are outlined in section 2.3. While no significant concerns	We recommend that a surface water sampling protocol be developed by FGM and followed by a sub- consultant completing the surface water sampling and reporting. Along with identifying locations, sampling frequency, and parameters, such a protocol could specify	FMG has hired Wood PLC to oversee water sampling programs at the Springpole site. The Wood team is very experienced in collecting the required data and will ensure there is consistency in fieldwork methods and requirements.	Appendix N-1 section 2

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			are evident from this variation, there is an opportunity to increase consistency and develop a more refined dataset.	QA/QC sampling requirements, sampling methods (dip vs. Kemmerer, etc.), preservation/transport requirements, and possibly preferred laboratory and reporting requirements.		
MON-BL-054	Surface Water Quality Baseline Report Cumulative (2011 - 2020)	Section 2.3.4 Data Analysis	The report states, "For analytical results that were less than the reported MDL, half the MDL was used in the statistical analysis." Using half the MDL as a value for plotting or calculations is not uncommon, but in some instances, especially if the criteria is close to the MDL, applying this approach may result in lowering the statistics such as mean or 75th percentile to below the criteria when in fact this might not be true. A more conservative approach would be to use the MDL as the value. This concern of biasing the mean or other statistics diminishes as the dataset increases in values above the MDL and is usually insignificant if the MDL is an order of magnitude lower than the criteria. In the present dataset, it appears that MDLs are all significantly below the parameter criteria.	<p>Confirm if data on the time-series plots also incorporate the half MDL approach. Consider annotating them as such if so.</p> <p>Review dataset to assess if MDLs are a minimum of an order of magnitude below comparison criteria for each parameter.</p> <p>Consider using the more conservative MDL value approach instead of half the MDL value for data points where a parameter result is below MDL.</p>	<p>The time series plots also incorporate the half MDL approach.</p> <p>To support the baseline study and EIS, half MDL detection limit is used for all parameters, which is consistent with available guidance documents regarding data handling (see reference list). This approach assumes that, on the average, all values between the DL and zero could be present, and that the average value of non-detects could be as high as half the detection limit.</p> <p>Non-Detects handled as DLs is a highly conservative approach and assumes that the largest concentration of analyte that could be present but was not detected. This method always produces a mean concentration which is biased high, which is not consistent with available guidance, and is not to be considered further.</p> <p>MDLs are appropriate to support baseline characterization of surface water and are reported in Table 2-3.</p> <p>References: EPA. 1990. Guidance for Data Useability in Risk Assessment. EPA/540/G-90/008. Metal Mining Technical Guidance for EEM Monitoring, Chapter 5 (2014-05-06)</p>	Appendix N-1 section 2.3.3
MON-BL-055	Surface Water Quality Baseline Report Cumulative (2011 - 2020)	3.2.2 Water Quality (and other water quality sections in Section 3)	The report identifies that occasional or irregular elevated parameters (such as aluminum) are generally associated with elevated DOC and TSS and likely associated with run-off.	Consider running a filtered metals sample at the sample location to back up this assertion and have a defensible explanation for anomalies of this nature. Note also that the Aluminum Provincial Water Quality Objective is for clay-free samples.	<p>Observed concentrations of total and dissolved aluminum are part of the natural heterogeneity of these lake systems and therefore this is not considered an anomaly that requires further analysis.</p> <p>Concentrations of total and dissolved metals are both monitored as part of the surface water quality program and are reported in the Surface Water Quality Baseline Report.</p> <p>Results of the baseline program, through to 2021, are presented in the draft EIS/EA.</p>	Appendix N-1 section 3
MON-BL-056	Springpole Gold Project - Geochemical Characterization Update. April 2021	5.6.2 Field Leach Barrel Commissioning and Operation	Weathering testing commenced Sept 18, 2020. The report indicates that no sampling events occurred in 2020. Therefore, no results were available in the April 2021 report.	What is the status of this investigation, and are results available?	These tests were terminated in late 2021, with a more comprehensive replacement test program developed that will provide information on specific lithologies and ML/ARD drainage qualities for the Project.	Appendix K-1.2
MON-BL-057	Springpole Gold Project - Geochemical Characterization Update. April 2021	5.7 Laboratory Kinetic Testing Results – Metallurgical Tailings	Kinetic testing included tailings in a subaqueous column (SAC) with a 0.5 m column of water above the tailings. Is subaqueous deposition of tailings the planned disposal method for the area of the Project? Is this an investigation of the potential deposition approach or on dissolution release?	Provide a rationale for the SAC kinetic testing of the tailings.	The subaqueous column test was initiated as part of baseline studies for the Project based on previous mine plans. The mine plan has been refined since that time such that the SAC kinetic testing of tailings are not representative of the expected life of mine tailing or the method of deposition. The SAC test was terminated in June 2021 and results are presented in the updated baseline Kinetic Testing Report that is being appended to the draft EIS/EA.	Appendix K-1.3

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ID	Report	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Where Addressed
					Representative tailings samples are being generated as part of ongoing metallurgical studies and kinetic testing are being conducted on these samples to provide specific information on the ML/ARD characteristics of the tailings and their proposed deposition method.	
MON-BL-058	Springpole Gold Project - Geochemical Characterization Update. April 2021	6.3 Mineralogical Analysis [summary].	The X-ray diffraction identified pyrite as the only sulphide mineral. Are arsenopyrite and chalcopyrite (possible sphalerite) also associated with this deposit? So what would be the potential source for arsenic?	Comment on sulphides determined by X-ray diffraction.	Pyrite is the only sulphide mineral detected by R-XRD and noted in geological observations for drill core from the Project. The arsenic content of the ML/ARD test samples (n=896 samples) is also notably lower than the sulphur content of the samples, suggesting that arsenopyrite (FeAsS) is not a significant sulphide in the samples, and arsenic may be present in other sulphide minerals (e.g., substituted in pyrite). Additional detailed mineralogical testwork is proposed to further evaluate the sulphide mineralogy of Project mine rock.	Appendix K-1.2

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	FMG Response	Where Addressed
MON-dEIS-001	6.4.1 Effects Analysis Methodology	<p>The effects significance attribute or criterion “Ecological and Social Context” is defined as a qualitative measure of the sensitivity and/or resilience of the VC to potential change, based on professional judgement and/or consultation. That definition is incorrect, and is better used as a definition of Reversibility, a criterion that includes the concept of resilience of a VC.</p> <p>Context is actually the ability of the surrounding ecological and social environments to be resilient to changes in the VC. For example: is an animal or plant VC a keystone species on which others depend? Or will changes to a VC affect human use of that VC? Or will elimination of a population of an at-risk species extirpate that species from the study area or are there other populations?</p>	<p>Comment noted.</p> <p>The ecological and social context attribute is used to describe the sensitivity of the valued component to further changes. The ecological and social context within which potential environmental effects may occur should be taken into account when considering the key criteria in relation to a particular VC, as the context may help better characterize whether adverse effects are significant. The characterization of the ecological and social context will be clarified in the final EIS/EA.</p>	EIS Section 6.1.1.2
MON-dEIS-002	6.4.1 Effects Analysis Methodology	<p>The effects significance attribute “Timing” is defined as the time of year the effect is expected to occur (for select VCs). Why would Timing be applicable to only some VCs? For example, measures to mitigate effects on air quality or noise could be directly linked to the presence of mammals at important lifecycle stages. It is important to cross- reference mitigation of effects on VCs with how they might be affected by residual effects of changes in other VCs caused by the Project.</p>	<p>As noted in Table 6.1-2 of the draft EIS/EA, the timing attribute is a measure of whether the residual effect occurs during a sensitive period of the year for specific valued components. Residual effects occurring outside these sensitive periods would be characterized as having a lower likelihood of being significant.</p>	EIS Section 6.1.1.2
MON-dEIS-003	6.4.1 Effects Analysis Methodology	<p>The description of the EA methodology states that, “The level of confidence is described for the significance determination and considers factors such as the certainty of the scientific information, the level of rigor in the modelling and assessment methods, professional judgment, and the effectiveness of proposed mitigation.” In the effects assessment sections on the VCs, however, there is no systematic analysis of the predicted effectiveness of mitigation measures. That lack of clarity effectively breaks the logic train of the significance argumentation by leaving open the question of how conclusions on effectiveness of mitigation were reached.</p> <p>The EA methodology should include tables of mitigation measures by VC and potential Project effects that answer a series of questions, including (in descending order of confidence):</p> <p>Is the mitigation measure a typical Best Management Practice commonly used in similar situations and that is known to be effective? Is the mitigation measure one that is acceptable and well-known to environmental regulators? Is the mitigation measure the best alternative in the circumstances, according to professional judgement? Is the mitigation measure one that is untried elsewhere but based on sound professional judgement? Is the mitigation measure speculative and one that will require frequent performance monitoring?</p>	<p>The mitigation measures identified in the effects assessment include consideration of these questions. Where there is potential uncertainty in the effectiveness of the measures, a follow-up program is identified. This will be updated in the final EIS/EA.</p>	EIS Section 6.1.1.2
MON-dEIS-004	6.4.1 Effects Analysis Methodology	<p>The methodology provides no information on how to arrive at a significance determination based on levels of the various effects attributes or criteria. As a result, the EIS sections do not actually provide significance conclusions, and it is left to regulators to read between the lines. Without an explanation of how significance is systematically evaluated from levels of each attribute, argumentation about residual effects is weak throughout the assessment.</p>	<p>As described in Section 6.1.4 of the draft EIS/EA, the residual effects is determined to not be significant if:</p> <ul style="list-style-type: none"> The magnitude and/or extent is considered to be low; or The duration including residual effects (i.e., the effect itself is of short-term duration) is considered to be short-term; or <p>Is likely to occur very infrequently (or not at all) with little potential for long-term effects. Similarly, the effect is not likely to be significant if the effect has low or limited importance to the biophysical or human environment.</p>	EIS Section 6.1.1.2
MON-dEIS-005	6.2.3 Mitigation Measures	<p>A stated mitigation measure to control dust emissions during all Project phases is to apply water spray, supplemented by dust suppressants. Where will the water be source, particularly along roads? What are the constituents of dust suppressants? If those details are provided elsewhere, please provide a cross-reference.</p>	<p>The water for dust control will be sourced from the freshwater supply, in accordance with applicable environmental approvals such as a Permit to Take Water.</p> <p>It is an MECP requirement that the application of a chemical dust suppressant must not have an adverse effect on the surrounding environment. If chemical dust suppressants are used, product information and the material safety data sheet will be reviewed along with the recommended</p>	EIS Section 6.2.1.2

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	FMG Response	Where Addressed
			application rate and frequency of application to optimize dust suppression to minimize potential adverse effects to the environment.	
MON-dEIS-006	6.2.3 Mitigation Measures	A stated mitigation measure during operations is to design process-plant emissions sources to allow for “good” atmospheric dispersion. How is “good” defined, and was a particular standard applied?	<p>There are measures that can be taken to improve dispersion of emissions from point sources which include designing the discharge height, exit velocity, design of a rain cap that does not result in impeded vertical discharge, and the placement of stacks such that the effects of building downwash are minimized.</p> <p>In this context, good is defined as meeting the relevant Ontario Air Quality standards and guidelines for the off-site effects of contaminants based upon the resultant concentration at the extent of the Project’s property boundary. Also considered is the prevention, or minimization to the extent possible, of particulate emissions from the process plant which may settle on roads and other surfaces with the potential to be re-entrained as fugitive dust.</p>	EIS Section 6.2.4
MON-dEIS-007	6.2.5 Significance of Residual Effects	<p>The table in the section mischaracterizes the significance attribute or criterion “Ecological and Social Context” as “a qualitative measure of the sensitivity and/or resilience of the VC to potential change, based on professional judgement and/or consultation.” The actual meaning of that attribute ought to be the ability of the surrounding ecological and social environments to be resilient to changes in the VC, i.e., air quality. The definition provided is actually related to the Reversibility attribute.</p> <p>Then, in the third paragraph below the table, it is stated that “the air quality VC is capable of supporting the predicted residual effects with typical measures, and therefore the ecological and social context is considered low (Level I)”. This circular argument begs the question, in effect saying that “effects of changes in the VC will have a low effect on the VC, or effects will have low effects on themselves.” The argument does not address the ecological or social contexts.</p> <p>Further, the Ecological and Social Context should be directly related to the Timing attribute and the affected VCs in the biophysical and human environments that are specified in the footnote below the table.</p>	See the response to Comment #1. The data from regional monitoring stations and ongoing onsite measurements indicate good air quality attributed to the rural setting with no significant anthropogenic sources of air emissions near the Project. As a result, air quality is capable of supporting the predicted residual effects with typical measures, and therefore the ecological and social context is considered low. The timing attribute is not applicable to air quality as the seasonality of the residual effect does not influence the overall significance.	EIS Section 6.1.
MON-dEIS-008	6.2.5 Significance of Residual Effects	For the significance attribute “Magnitude”, the category levels are not defined in a logical order of escalating scale; it appears that the definitions for Level I and Level II have been reversed. The Levels as stated are “Level I, meet criteria”, “Level II, be below criteria”, and “Level III, exceed criteria”, implying that it is better to meet than to be under criteria. That confusion of criteria levels then leads to ineffective argumentation as to the Magnitude attribute in the discussion below the table.	Level I is defined as meeting applicable criteria and standards at the extent of the lease property boundary, whereas Level II is defined as meeting applicable criteria and standards at the extent of the local study area. Where the applicable criteria and standards are not met at the extent of the local study area, it would be characterized as Level III.	EIS Section 6.2.7
MON-dEIS-009	6.2.5 Significance of Residual Effects	The definition of “Likelihood” provided here and throughout the EIS, “The likelihood of occurrence of the residual effect” is not logical, as it defines likelihood as likelihood. A preferable definition would be either “The chance of occurrence of the residual effect” or “the relative probability of occurrence of the residual effect”.	This will be re-worded in the final EIS/EA.	EIS Section 6.2.7
MON-dEIS-010	6.2.5 Significance of Residual Effects	Throughout the effects assessment for all VCs, the significance argumentation is difficult to follow. Effectiveness and clarity could be improved by using a separate paragraph for each significance attribute and presenting those paragraphs in the same order as that of the attributes in the table.	Comment noted.	EIS Section 6.2.7
MON-dEIS-011	6.2.5 Significance of Residual Effects	There is no mention of the “Timing” attribute of significance determination in the argumentation, despite the footnote under the table that specifies VCs related to that attribute. The reader is left to draw conclusions based on the other attributes. Again here, argumentation about significance of effects is weak.	The timing attribute is not applicable to air quality as the seasonality of the residual effect does not influence the overall significance.	EIS Section 6.2.7
MON-dEIS-012	6.2.5 Significance of Residual Effects	Despite the title of section, the Proponent does not state the level of significance of effects on the Air Quality VC. The Regulators will be required to read between the lines to parse out what the	A description of the significance of residual effects for all valued components will be included in the final EIS/EA, after considering comments from reviewers submitted on the assessment of residual effects for all valued components.	EIS Section 6.2.7

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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		Proponent is trying to say here. THIS POINT IS ALSO APPLICABLE TO SIGNIFICANCE DETERMINATIONS FOR EFFECTS ON OTHER VCs.		
MON-dEIS-013	6.3.5 Significance of Residual Effects	<p>The conclusion that there will be no residual effects of the project on the acoustic environment is not well supported by effective argumentation. “Residual effects” means effects remaining after application of all feasible or practicable mitigation measures. The conclusion is not supported, as mitigation measures are not specifically listed, even if related to project planning and design. Instead, sections 6.3.4.1 and 6.3.4.2 present modelling results for Noise and Vibration, respectively, but those modelling results represent conditions after application of the unstated design mitigation measures.</p> <p>No information is provided on potential animal receptors of noise and vibrations. How is it possible to fully mitigate effects of changes to the acoustic environment without specifying what those changes might effect?</p>	<p>As noted in Section 6.3.4.1 of the draft EIS/EA, the noise modelling does not predict exceedances of regulatory limits at the identified points of reception. The Project is expected to operate in compliance with the applicable provincial and federal sound level limits for its daytime and evening / nighttime operations during the four identified worst-case periods during the construction and operations phases.</p> <p>As stated in Section 6.3.3 of the draft EIS/EA, the mitigation measures include the implementation of source-based noise control measures on construction and other mobile equipment such as noise attenuation kits, proper maintenance of equipment, and the use of acoustical enclosures to limit overall noise emissions on select equipment and/or buildings.</p> <p>As a result, there are no predicted residual effects to the acoustic environment from the Project-related noise.</p> <p>The assessment of indirect effects on wildlife habitat due to sensory disturbance such as noise, are considered in Section 6.12.4.2 of the draft EIS/EA.</p>	EIS Section 6.2.7
MON-dEIS-014	6.4 Greenhouse Gas Emissions	The description of the GHG VC conflates GHGs themselves with Project effects of potentially increasing atmospheric levels of GHGs. GHGs is a VC because natural or historic levels of CO2 and other atmospheric gases keep the global environment sufficiently warm to support life; that is why GHGs are valued. So GHGs are not themselves “a contributing factor in anthropogenic alteration of climate”, as stated, but it is anthropogenic increases in GHGs that contribute to alteration of climate. Potential increases in GHGs is a Project effect, and GHGs are the VC, not management of GHG levels.	<p>Acknowledged.</p> <p>The approved Amended Terms of Reference (ToR) require quantification of GHG emissions, consistent with the Canadian Environmental Assessment Act, 2012.</p> <p>The management of GHG levels, as described in the draft EIS/EA and the Greenhouse Gas Assessment in Appendix I, refers to the understanding that the GHG emissions predicted from the Project have been determined by completing an inventory and calculation of net-GHG in order to determine their significance in the context of Ontario and Canada’s GHG inventory and the government’s commitments to reducing GHG emissions. It is the annual net-GHG emissions and the GHG intensity that are the metrics used in assessing GHG effects.</p> <p>Section 6.4.5 of the draft EIS/EA will be revised in the final EIS/EA to reflect that the Project’s residual effects on atmospheric GHGs are not fully reversible, however relative to Canada’s inventory and commitments under the Canadian Net-Zero Emissions Accountability Act, the Project’s annual contribution to Canada’s emission inventory will be fully reversible at closure. The cumulative effects assessment in Section 7 of the draft EIS/EA will be updated to be consistent with Section 6.4, as necessary.</p>	EIS Sections 6.4.1.2, 6.4.1.5
MON-dEIS-015	6.4.1 Existing Conditions	This section would more appropriately be titled “Current Levels of GHG Emissions”. It does not describe existing conditions of the GHG VC itself. A description of those existing conditions would include current levels and trend lines of atmospheric GHGs locally, nationally, and globally to provide a baseline against which to measure potential Project effects.	<p>When referring to GHGs, it is implied that the emissions and emissions intensity are the metrics used for evaluation. The current levels of GHG emissions are presented in Greenhouse Gas Assessment in Appendix I of the draft EIS/EA in order to describe the significance of the Project’s GHG emissions.</p> <p>Further detail will be included in the final EIS/EA for clarification.</p>	EIS Section 6.4.1.2
MON-dEIS-016	6.4.2 Potential Environmental Effects	The first sentence of the section begins, “The assessment of potential effects of the Project on GHG emissions includes:”, which immediately sets up the circular argument used throughout the GHG effects assessment. Rather than being an assessment of potential effects of the Project on atmospheric levels of GHGs, it becomes an assessment of effects of increased emissions on levels of emissions. Again, as stated above, the VC is GHGs themselves, not management of GHGs.	<p>It is acknowledged that the reduction of GHG emissions is necessary to counter the effects of increased CO2 in the atmosphere and global warming/climate change.</p> <p>Both the federal and Ontario governments stipulate that the impact of the Project on climate change should be considered as an evaluation of GHG emissions and changes in land use (carbon sinks).</p>	EIS Sections 6.4.1.2, 6.4.1.5

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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			<p>The GHG Assessment in Appendix I of the draft EIS/EA evaluated the potential effect of the Project on climate change in terms of the potential GHG emissions and land use changes associated with the Project, per the approved Amended ToR and the EIS Guidelines. It is the emissions of GHGs, in terms of the annual net-GHG and the GHG intensity, and the impacts on carbon sinks, which are relevant to understanding how the Project aligns with the government's commitments to GHG reductions and the path to net-zero.</p> <p>The evaluation of changes in atmospheric concentrations of GHGs requires complex modelling on a global scale, such as the work conducted by the Intergovernmental Panel on Climate Change. It is not feasible to consider changes in atmospheric GHG concentrations on a local or Project scale.</p> <p>Section 6.4.5 of the draft EIS/EA will be revised in the final EIS/EA to reflect that the Project's residual effects on atmospheric GHGs are not fully reversible, however relative to Canada's inventory and commitments under the Canadian Net-Zero Emissions Accountability Act, the Project's annual contribution to Canada's emission inventory will be fully reversible at closure.</p>	
MON-dEIS-017	6.4.5 Significance of Residual Effects	<p>The table in the section mischaracterizes the significance attribute or criterion "Ecological and Social Context" as "a qualitative measure of the sensitivity and/or resilience of the VC to potential change, based on professional judgement and/or consultation." The actual meaning of that attribute ought to be the ability of the surrounding ecological and social environments to be resilient to changes in the VC, i.e., GHGs. The definition provided is actually related to the Reversibility attribute.</p> <p>Then, in the third paragraph below the table, it is stated that "the GHG VC is capable of supporting the predicted residual effects with typical measures and therefore the ecological and social context is considered low (Level I)". This circular argument begs the question, in effect saying that "effects of changes in the VC will have a low effect on the VC." The argument does not address the ecological or social contexts.</p> <p>Further, the Ecological and Social Context should be directly related to the Timing attribute and the affected VCs in the biophysical and human environments that are specified in the footnote below the table.</p>	<p>See the response to Comment #1. Given the limited contribution to greenhouse gas emissions from the current activities onsite, this VC is capable of supporting the predicted residual effects with typical measures, and therefore the ecological and social context is considered low.</p> <p>The timing attribute is not applicable to the greenhouse gas valued component as the seasonality of the residual effect does not influence the overall significance.</p>	EIS Section 6.1.1.2
MON-dEIS-018	6.4.5 Significance of Residual Effects	The definition of Magnitude provided in the table is "A qualitative or quantitative measure to describe the size of degree o the residual effects relative to baseline conditions." But the levels provided are not related to the baseline levels of GHGs but to Project emissions of GHGs in relation to Canada's 2030 target. In fact, as described above, Section 6.4.1 does not present baseline GHG levels. Again, the VC is GHGs themselves, not management of GHGs. This problem leads to poor argumentation below the table as to the magnitude of residual effects on GHGs. Furthermore, basing the magnitude of Project effects on Canadian targets belongs in a cumulative assessment rather than an assessment strictly related to Project effects.	Refer to the response to Comment #16.	EIS Sections 6.4.1.2, 6.4.1.5
MON-dEIS-019	6.4.5 Significance of Residual Effects	The significance evaluation considers the residual effects of Project GHG emissions to be reversible, on the grounds that such emissions will cease once Project activities cease and the area is reclaimed. Is the Proponent suggesting that there will be some process for reversing the effects, such as reclaimed areas becoming GHG sinks and removing GHGs from the atmosphere in amounts that equal or exceed Project emissions? If so, please provide evidence. If not, please state that GHG emissions will not be reversible.	<p>The final EIS/EA will include discussion of Scope 3 indirect emissions and post-closure considerations, including revegetation.</p> <p>Section 6.4.5 of the draft EIS/EA will be revised in the final EIS/EA to reflect that the Project's residual effects on atmospheric GHGs are not fully reversible, however relative to Canada's inventory and commitments under the Canadian Net-Zero Emissions Accountability Act, the Project's annual contribution to Canada's emission inventory will be fully reversible at closure.</p>	EIS Sections 6.4.1.2, 6.4.1.5

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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MON-dEIS-020	6.4.5 Significance of Residual Effects	There is no mention of the “Timing” attribute of significance determination in the argumentation, despite the footnote under the table that specifies VCs related to that attribute. The reader is left to draw conclusions based on the other attributes. Again here, argumentation about significance of effects is weak. As GHG emissions will be nearly continuous throughout the Project life, the effect on the Timing attribute should be described as Level III, or High.	The timing attribute is not applicable to greenhouse gases as the seasonality of the residual effect does not influence the overall significance.	EIS Section 6.4.7
MON-dEIS-021	6.5	We agree with the approach to consider groundwater to be a VC by virtue of its being a potential pathway for Project effects on other VCs, given that there is no human use of the resource within the study area.	Comment noted.	EIS Section 6.5.1
MON-dEIS-022	6.5.5 Significance of Residual Effects	The comments made above on the definitions of attributes provided in the table are also applicable here. To make the significance argumentation below the table more clear, it would be advisable to discuss levels assigned to each attribute in the same order as the table.	Comment noted.	EIS Section 6.5.7
MON-dEIS-023	6.6.5 Significance of Residual Effects	The comments made above on the definitions of attributes provided in the table are also applicable here. To make the significance argumentation below the table more clear, it would be advisable to discuss levels assigned to each attribute in the same order as the table.	Comment noted.	EIS Section 6.5.7
MON-dEIS-024	6.7.5 Significance of Residual Effects	The comments made above on the definitions of attributes provided in the table are also applicable here. To make the significance argumentation below the table more clear, it would be advisable to discuss levels assigned to each attribute in the same order as the table.	Comment noted.	EIS Section 6.5.7
MON-dEIS-025	6.8.5 Significance of Residual Effects	The comments made above on the definitions of attributes provided in the table are also applicable here. To make the significance argumentation below the table more clear, it would be advisable to discuss levels assigned to each attribute in the same order as the table.	Comment noted.	EIS Section 6.5.7
MON-dEIS-026	6.9.5 Significance of Residual Effects	Despite the conclusion that there will be no residual Project effects on this VC, will there be an effectiveness-monitoring process to enable verification of that conclusion?	Preliminary effectiveness monitoring for specific valued components is described in Section 12 of the draft EIS/EA and will be updated during the environmental approvals phase.	EIS Sections 6.9.1.2, 12.6.
MON-dEIS-027	6.10.4.1 Assessment of Residual Environmental Effects, Changes in Fish Habitat	<p>The assessment of effects concludes that the project will have no residual effects on fish habitat. That conclusion is based largely on the application of offsetting measures aimed to provide 492 hectares of fish habitat. However, the assessment should acknowledge some limitations, as described below.</p> <p>The proposed establishment of micro-hatchery programs should not be considered part of an offsetting program, as this measure would not result in self-sustaining populations.</p> <p>The proposed reintroduction of lake sturgeon accounts for 200 hectares of fish habitat. However, the supporting studies do not present evidence of the former occurrence of lake sturgeon in the system. Likewise, there are no available studies examining the causes behind its absence. Further, monitoring the potential success or failure of this measure would require a long time, given the slow development of lake sturgeon. Thus, there would be a lengthy and unaccounted time lag in the implementation of the offsetting measure. In consideration of these elements and the absence of additional information, this proposed measure is highly speculative and unlikely to contribute to restoring the loss of productivity caused by the project.</p> <p>The provision of deep open pit pelagic area is said to account for 104 hectares. However, and in comparison, the loss of pelagic habitat due to dewatering of the basin was not accounted for in the assessment of effects. If correct, this would also mean that the estimated loss of fish habitat is underestimated.</p>	<p>The proposed micro-hatchery and strategic stocking would not be credited as an offsetting area in the Fish Habitat Offsetting and Compensation Plan, and as such, it has not been allocated any area equivalents for it in the draft Plan. The stocking was seen as a mitigation to temporarily maintain overall fish productivity in the lake during the Project; and as a possible means of developing fish hatchery capabilities in the communities. This measure would only be carried forward in the final Plan if it was supported by Indigenous communities and government agencies.</p> <p>The Lake Sturgeon reintroduction measure is presented as a potential long-term program and it is recognized that there are data and population metrics that would need to be resolved for its successful execution. The measure was introduced at a concept level to gauge interest both with the Indigenous communities and government agencies. There is traditional knowledge documenting the historic presence of Lake Sturgeon in the local system and the provincial government agencies believe Lake Sturgeon still exist in the system, including Birch Lake. This measure will be further discussed with Indigenous communities and would only be carried into the final Plan with additional support and information.</p> <p>The draft Plan uses total area as hectares of impacted habitat compared to total hectares of restored habitat regardless of the function of that habitat (i.e, spawning versus pelagic summer refuge). The revised Plan will make additional reference to the types of habitats that would be impacted and restored; however the areas of existing pelagic habitat and the proposed restored areas of pelagic habitat are accounted for in the total areas of the plan.</p>	EIS Section 6.10, Appendix F.

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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MON-dEIS-028	6.10.4.2 Assessment of Residual Environmental Effects, Changes to Fish Communities	<p>The assessment of potential changes to fish communities concludes that no residual effects are anticipated because of the implementation of mitigation and offsetting measures.</p> <p>However, as described above, the adequacy and sufficiency of the proposed measures is questionable. This assessment should acknowledge this limitation and discuss the potential residual effects.</p> <p>Further, the assessment considers only the effects caused by direct mortality of fish, while ignoring other pathways of effects that could result in residual effects, including the loss of spawning areas.</p>	<p>Discussions with Indigenous communities and government agencies are ongoing to refine and modify the proposed offsetting and compensation measures. Developing a final Plan that adequately balances the predicted impacts to fish habitat with fish offsetting measures will be a necessary requirement of Project approvals and such would fully mitigate the predicted effects described the final EIS/EA. As such, the revision of the Plan will aim to include input from Indigenous communities and government agencies prior to submission of the final EIS/EA.</p> <p>The physical impacts to fish habitat including loss of spawning areas is currently accounted for as total hectares of lost fish habitat in the draft Plan. The revised Plan will make a better differentiation between the types of habitats that would be lost (such as spawning habitat) and the habitat functions provided by the fish offsetting measures.</p>	EIS Section 6.10, Appendix F.
MON-dEIS-029	6.10.5 Significance of Residual Effects	<p>The proponent concludes this assessment by stating that it is unnecessary to evaluate the significance of residual effects because mitigation and offsetting measures eliminate them.</p> <p>As described above, compensating the destruction of fish habitat relies largely on insufficient and inadequate measures and a potentially mistaken accounting of the total amount of pelagic habitat destroyed.</p> <p>The proposed establishment of micro-hatchery programs should not be considered part of an offsetting program, as this measure would not result in self-sustaining populations.</p> <p>The proposed reintroduction of lake sturgeon accounts for 200 hectares of fish habitat. However, the supporting studies do not present evidence of the former occurrence of lake sturgeon in the system. Likewise, there are no available studies examining the causes behind its absence. Further, monitoring the potential success or failure of this measure would require a long time, given the slow development of lake sturgeon. Thus, there would be a major and unaccounted time lag in the implementation of the offsetting measure. In consideration of these elements and the absence of additional information, this proposed measure is highly speculative and unlikely to contribute to restoring the loss of productivity caused by the project.</p> <p>The provision of deep open pit pelagic area is said to account for 104 hectares. However, and in comparison, the loss of pelagic habitat due to dewatering of the basin was not accounted for in the assessment of effects. If correct, this would also mean that the estimated loss of fish habitat is underestimated.</p>	Consistent with the response to Comment 27, the Fish Habitat Offsetting and Compensation Plan will continue to be modified and revised to ensure that the final Plan appropriately addresses the impacts to fish habitat. Further discussions with Indigenous communities and government agencies will inform the preferred fish offsetting measures.	EIS Section 6.10, Appendix F.
MON-dEIS-030	6.11.2.4 Analytical Methodology	<p>The use of Far North Land Cover Classification (FNLC) system may be adequate to describe large-scale patterns of vegetation. However, it is not suitable for examining the availability of habitat types for wildlife, because relevant information regarding the biophysical characteristics of the sites is absent. This shortcoming is further discussed in our comments on the assessment of effects on wildlife.</p> <p>Another problem of using FNLC is that rare, potentially sensitive, communities are “hidden” by the large scale of assessment. In fact, an indicator is the “Change in the relative abundance of plant species”, whose related measurable parameter is “Area and relative abundance of vegetation communities and wetlands.” The FNLC under- represents rare communities and pools all types into large, inclusive categories. This scale results in each category appearing to be significantly more common than any of the communities than they include. In conclusion, the chosen approach</p>	FRI is not available for approximately 1/3 of the regional study area. Forestry companies have been contacted for updated disturbance information and MECP will be providing us with update disturbance layer data. In the draft EIS/EA, the Far North Land Cover Classification was used where landscape level assessments had to be undertaken as that is the only data available at that scale. For more local site-specific assessments FRI will continue to be used FMG completed targeted vegetation plots in main habitat types and the final EIS/EA will provide further information and figures displaying the available data for each area used as inputs into habitat assessments. As a result, the estimate of abundance will be refined, and will be used to validate the characterization of magnitude for the potential effect.	EIS Sections 3, 6.11.

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	FMG Response	Where Addressed
		overestimates the abundance of vegetation communities and, conversely, underestimates the magnitude of the potential effects of the Project.		
MON-dEIS-031	6.11.4.2 Change in the Abundance of Plant Species of Interest, including Species of Interest to Indigenous communities, SAR and Species of Conservation Concern	<p>The assessment concludes that the project “is not anticipated to affect the viability of the populations” of species of interest to Indigenous communities. However, this conclusion is not supported by empirical data and a robust analysis.</p> <p>The assessment does not include estimates of the abundance of species of interest to Indigenous communities, such as wild rice, blueberries, sweet grass, and many others, and contradicts the information presented earlier which includes “change in relative abundance” as a measurable parameter to be used in the assessment.</p> <p>Further, the assessment concludes that no residual effects are anticipated. The conclusion is based largely on the assumption that mitigation and rehabilitation measures will suffice to that end. However, such measures are not described and there is no quantification of their contribution to mitigating the adverse effects.</p> <p>In conclusion, it can be argued that the assessment is lacks analytical and factual support and, therefore, its conclusions are speculative in nature.</p>	Robust analysis and accurate comprehension of baseline conditions can only be completed after a minimum of two-years of sampling. As the number of sampling years increases so does the reliability of natural variability estimates, and their likely role in project impacts and mitigation effectiveness. Conclusions in the draft EIS/EA are based on previous data collection and will be validated in the final EIS/EA with the additional information to support the confidence conclusions. Available traditional knowledge will be used to identify species of interest in which an abundance estimate will be made in the final EIS/EA.	EIS Sections 6.11, 6.21, 6.26.
MON-dEIS-032	6.12.4.1 Direct Effects on Wildlife Habitat	<p>This section estimates the magnitude of direct habitat loss for each wildlife group and relates it to the amount of habitat available in the RSA.</p> <p>It is notable that the analyses presented treat all types of habitats as equal. For instance, it predicts the loss of the same amounts of habitat for moose, wolf, and black bear.</p> <p>Further, the analyses extrapolate the amounts of habitat lost to the extent of the RSA.</p> <p>It is unclear whether the percentage represented by the habitat lost is relative to the total area of the RSA, the total availability of that habitat type within the RSA, or the total availability of habitat suitable to each species within the RSA.</p> <p>The appropriate way to analyze the magnitude of the effects would be to estimate the area of habitat to be destroyed that is suitable for each species. For example, what percentage of the 1,493 hectares is suitable moose, boreal owl, wolf, or black bear habitat? Then, the same analysis should be conducted at the RSA level to estimate the total amount of available habitat suitable for each of those species.</p> <p>From a technical perspective, this section is deficient, and the estimated effects are undoubtedly biased. Further, the direction of the biases is unknown and, thus, it prevents the adequate evaluation of the potential impacts of the project.</p>	<p>As noted in Section 6.12.4.1 of the draft EIS/EA, moose, wolf and black bear were assumed to use similar vegetation communities including coniferous, deciduous and mixed treed cover types, along with treed wetlands. In addition, moose forage in non-treed wetlands, including marsh, bog and fens.</p> <p>The direct habitat loss for each wildlife species within the Project development area was compared to the same combination of cover types for the species within the regional study area. As a result, the estimated effects are considered appropriate.</p>	EIS Section 6.12.6
MON-dEIS-033	6.12.5 Significance of Residual Effects	<p>The assessment of significance of residual effects has several flaws. One basic weakness is that the analysis implicitly treats the effects on all wildlife species as equal. For instance, it assumes that boreal owl, moose, wolf, and black bear will experience the same loss of habitat. This assumption would only be reasonable if all of these had the exact same habitat requirements. This error is further extended when extrapolating the magnitude of habitat loss to the RSA level.</p> <p>A second weakness is that the assessment of residual effects relies largely on two assumptions that</p>	The quantification of direct loss of habitat is detailed in Section 6.12.4.1, and the indirect loss of habitat is described in Section 6.12.4.2. This information has been used to characterize the magnitude of these residual effects in Section 6.12.5. Having said that, robust analysis and accurate comprehension of baseline conditions can only be completed after a minimum of two-years of sampling. As the number of sampling years increases so does the reliability of natural variability estimates, and their likely role in project impacts and mitigation effectiveness. Conclusions in the draft EIS/EA are based on previous data collection and will be validated in the final EIS/EA with additional	EIS Section 6.12.6

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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		<p>are not explicit: It assumes that mitigation measures will suffice to reduce or eliminate the effects of habitat loss, and that their efficacy will be comparable for all wildlife species. However, the draft does not provide information to estimate the efficiency of mitigation measures, nor does it explain how different wildlife species may respond to them. Thus, the conclusions regarding the magnitude of the residual effects and its significance are speculative.</p> <p>Finally, the magnitude of the residual effects is, arguably, one of the most relevant factors in the assessment. However, the draft does not attempt to quantify such magnitude and relies on qualifications that may be subjective instead. The lack of quantification makes it impossible to determine if the effects could change the abundance or distribution of wildlife populations and the scale of such change. In consequence, the conclusions achieved by the proponent and the confidence in the predictions are not supported by the analysis and may be considered subjective.</p>	information to support the confidence conclusions. Further information to support the assessment of these species will be provided in the final EIS/EA.	
MON-dEIS-034	6.12.5 Significance of Residual Effects	<p>The analysis does not evaluate the potential effects of the project and their significance on Significant Wildlife Habitat. This absence is puzzling, considering that Significant Wildlife Habitat is presented in the description of the existing conditions in 6.12.1.</p> <p>It should be noted that development in Significant Wildlife Habitat is prohibited by the Ontario Provincial Policy Statement (2020).</p> <p>Table 6.12.3 summarizes the Significant Wildlife Habitat screening. The table indicates that there is Candidate Significant Wildlife Habitat for species of Special Concern.</p> <p>However, the table does not provide additional information regarding the identity of the species for which this type of habitat may be present, nor does it attempt to confirm the information. Further, Section 6.16.1 of the EIS confirms the presence of Significant Wildlife Habitat for common nighthawk, olive-sided flycatcher, rusty blackbird, and bald eagle.</p>	Robust analysis and accurate comprehension of baseline conditions can only be completed after a minimum of two-years of sampling. As the number of sampling years increases so does the reliability of natural variability estimates, and their likely role in project impacts and mitigation effectiveness. Conclusions in the draft EIS/EA are based on the data collection and will be validated in the final EIS/EA with additional information to support the confidence conclusions. Further information to support the assessment of significant wildlife habitat will be provided in the final EIS/EA.	EIS Section 6.12.7
MON-dEIS-035	6.13.2.2 Indicators of Measurable Parameters	This section describes the indicators and variables to be used in the assessment. With a few exceptions, the assessment of effects makes no attempts to measure those parameters. Instead, the assessment attempts to provide arguments to reason in favour of different scenarios.	<p>The indicators and measurable parameters identified in Section 6.13.2.2 of the draft EIS/EA are based on the recommendations provided by the Ministry of the Environment, Conservation and Parks (MECP 2021)[1]. Section 6.13.2.4 provides an explanation of how these indicators and measurable parameters are used in the assessment of potential effects on Caribou. Where relevant, the indicators and measurable parameters are used to support the assessment of residual effects on Caribou in Section 6.13.4.</p> <p>It should also be noted that the assessment in Section 6.13 is informed by the supplemental assessment of alternatives for Species at Risk in Appendix T-2 of the draft EIS/EA. The supplemental assessment considers all indicators and measurable parameters recommended by MECP, for each SAR and for key Project components. The information and assessment in Appendix T-2 will support the Endangered Species Act permitting process.</p>	EIS Section 6.13.1.2, 6.13.1.4
MON-dEIS-036	6.13.2.3 Spatial and Temporal Boundaries	<p>The spatial and temporal boundaries for the assessment are presented. In this regard, the Regional Scale of analysis is defined as an area that represents a small fraction of the Churchill Range.</p> <p>The assessment of woodland caribou demography and management objectives are defined at the range level. Thus, the appropriate scale to assess the cumulative effects is the range.</p>	The study design for the regional study area (RSA) includes aerial survey blocks, sample plots and satellite collared animals in all three Caribou ranges (Churchill, Kinloch and Berens) that the Project interact with. This allows the measurement of changes in the vital rates for all three Caribou ranges. These ranges are open populations and collectively encompass a biological population of sufficient size (greater than the minimum viable population of 300 caribou per ECCC 2020 guidance) and at sufficient landscape scale (16,276 km ² ; larger than 58% of federally delineated Caribou ranges) to derive vital rates for a biological population that occurs at natural levels of abundance (0.02 to 0.03 Caribou/km ²). The aerial survey design includes survey blocks that sample each of these ranges to	EIS Section 6.13.1.3

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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			<p>acquire Caribou demographic and abundance data sufficient to model population scale effects. This population information is further supplemented with habitat use data acquired by the satellite telemetry study initiated in February 2023 involving Caribou from each range.</p> <p>The final EIS/EA will include updated impacts to Category 1, 2 and 3 habitats within the Churchill Range scale. The disturbance layers within the Churchill Range are also being updated using recent forestry and satellite imagery data. This information will be used to update the distribution of high-quality Caribou habitat. Further detail will be provided in the final EIS/EA to assess population and habitat effects at the landscape scale within the RSA and within the Churchill range.</p>	
MON-dEIS-037	6.13.2.3 Spatial and Temporal Boundaries	The temporal boundaries are presented in relation to the development of the project. However, there is no attempt to relate that time scale to a relevant temporal measure of the receiver of the effects. In this case, it should be described how the temporal boundaries relate to generation time for the Churchill Range caribou, as this is a relevant measure to assess the effects and mitigation measures.	Section 6.1 of the draft EIS/EA provides a detailed description of the methodology used for the assessment of potential effects of the Project. The significance of residual effects (after the application of mitigation) is characterized with seven attributes, including duration of the residual effect. The definition of the temporal boundaries is provided in Section 6.1.3 and is used for the assessment of all valued components in the draft EIS/EA to characterize the duration of residual effects of the Project.	EIS Section 6.13.1.3
MON-dEIS-038	6.13.2.5 Assumptions and the Use of the Conservative Approach	<p>This section describes the assumptions used in the assessment and their relationship with a “Conservative Approach.”</p> <p>While the assumptions are appropriately described, their effects on the assessment are inadequately considered, leading to the unsupported conclusion that “...predicted effects on habitat are likely to be overestimated.”</p> <p>The conclusion is based on two key claims. First, this section claims that the amount of vegetation to be physically removed is overestimated because patches will be retained in some areas. While the vegetation may be in fact retained in places, the claim ignores the fundamental aspect of the assessment that is concerned with removal of habitat. Habitat is much more complex than the availability of vegetation. Functionally, removal of surrounding vegetation is likely to impair the role of the remaining vegetation in provision, due to the low tolerance of woodland caribou to disturbance.</p> <p>Second, it is argued that progressive reclamation in select locations is not accounted for in the assessment. But that claim ignores the time lags associated with reclamation and, further, the fact that there is almost no empirical evidence supporting the success of woodland caribou restoration.</p> <p>Thus, the conclusion presented here should be revised, taking into account uncertainty, as indicated in the Precautionary Principle. That is, the proponent should explicitly acknowledge the limitations of the assessment.</p>	<p>Section 6.13 of the draft EIS/EA provides an assessment of both direct habitat loss and indirect changes in habitat. The assumptions related to the overestimation of Project effects due to the removal of habitat would be applicable to direct habitat loss. However, the indirect changes to habitat are fully assessed as described in Section 6.13.2.4 (page 6-296 to 6-298). The assessment of the residual effects on the indirect changes to habitat, after the application of mitigation measures, are presented in Section 6.13.4.2 and considers changes in habitat connectivity, movement behavior and the effects due to sensory disturbance. The significance of the residual effects on indirect changes to habitat are characterized in Section 6.13.5 and includes an evaluation of the level of confidence in the prediction.</p> <p>Regarding progressive reclamation, a time lag is acknowledged, however the intent of on-site reclamation is to accelerate the speed of vegetation restoration at closure. The success of reclamation will use long-term monitoring to verify the restoration is on a trajectory consistent with the target ecosite(s), that the vegetation achieve a “free to grow” state, and that the restored area(s) become suitable for Caribou use as intended. It is recognized that there may a be lag time until the habitat features are fully functional. This has been considered with the duration attribute, in which the residual effect of the direct loss of Caribou habitat has been characterized as high (Level III).</p>	EIS Section 6.13.5.7
MON-dEIS-039	6.13.3 Mitigation Measures	<p>It is confusing that mitigation measures are proposed before describing the anticipated effects of the project. Therefore, the mitigation measures are not clearly linked to effects, and, with a few exceptions, the measures should be presented as a set of operational practices that reduce negative interactions with woodland caribou.</p> <p>This section argues without support that mitigation measures are expected to be effective.</p> <p>Unfortunately, the mitigation measures proposed are unlikely to reduce the magnitude of the major effects of the project, including the loss and fragmentation of habitat, the increased range-level disturbance, and the augmented mortality risk.</p>	<p>A description of the potential effects on Caribou are provided in Section 6.13.2.1 of the draft EIS/EA. Mitigation measures are subsequently applied to these potential effects, as described in Section 6.13.3. The selection of these measures have been informed by the effectiveness of their use at other sites and as recommended by the Best Management Practices for Mineral Exploration and Development Activities and Woodland Caribou in Ontario (MECP 2020)[2].</p> <p>The residual effects, after the application of mitigation, is further assessed in Section 6.13. It should be noted that this will be regulated under an Overall Benefit Permit under the Endangered Species Act, and as a result, the measures will be required to be effective.</p>	EIS Section 6.13.4

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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		This section must be presented after the assessment of effects and measures should be explicitly linked to predicted effects.		
MON-dEIS-040	6.13.4.1 Direct Habitat Changes	<p>This section describes the magnitude of direct habitat loss for Categories 1, 2, and 3 of woodland caribou habitat. Then, it concludes that the habitat loss “will be fully mitigated once the habitat returns to mature coniferous refuge habitat for caribou.” There are several major flaws in that assessment, as described below.</p> <p>The assessment ignores the time lag associated with habitat restoration and fails to relate that to a temporal measure adequate for woodland caribou. Mature coniferous refuge habitat may develop over several decades. Some use of regenerating habitat by woodland caribou after about 30 years has been demonstrated. Considering the timeline of the project since removal of habitat, the operation life of the project, and the generation time of woodland caribou, we can conservatively argue that habitat loss may persist for three to four generations, at minimum.</p> <p>Thus, residual effects of the project on habitat loss will persist, irrespective of their magnitude.</p> <p>A second flaw of the assessment is that there is no attempt to characterize the magnitude of the residual effects. Assuming that the footprint of the project has been optimized and cannot be further revised and given the impossibility of mitigate habitat loss without a time lag, it would be most adequate to assume that the magnitude of the residual effects in this component equals the calculated areas loss for each habitat category.</p>	<p>As noted in Section 6.13.5 of the draft EIS/EA, the magnitude of the direct loss of Caribou habitat is mitigated with several measures. This includes incorporating Caribou habitat features into the overall closure plan, where feasible, and implementing those features during the closure of the Project. In addition, a habitat restoration program for Caribou that targets existing disturbed area, will be created in collaboration with Indigenous communities, the Environment and Climate Change Canada (ECCC) and Ministry of the Environment, Conservation and Parks (MECP). The success and progress of the onsite rehabilitation measures and the habitat restoration program for Caribou will be monitored for effectiveness in restoring habitat function and use for Caribou. Where necessary, adaptive management will inform adjustments to mitigation measures. As a result, the magnitude has been characterized as low (Level I). This will be regulated under an Overall Benefit Permit under the Endangered Species Act, and therefore the level of confidence in this prediction is high.</p> <p>It is recognized that there may a be lag time until the habitat features are fully functional. This has been considered with the duration attribute, in which the residual effect of the direct loss of Caribou habitat has been characterized as high (Level III). With the application of the new telemetry data from 2023 and available disturbance data, the magnitude of effects will be updated in the final EIS/EA.</p>	EIS Section 6.13.1.4
MON-dEIS-041	6.13.4.2 Indirect Habitat Changes	<p>Regarding the effects of the project on the movement behavior, it is argued that mitigation measures will reduce the residual effects.</p> <p>The assessment, however, does not attempt to characterize the magnitude of the residual effects. Given the information presented, it is impossible to evaluate whether the proposed mitigation would suffice to reduce the effects on movement behavior.</p> <p>Similarly, there are no attempts to estimate the magnitude of residual sensory disturbance following the application of mitigation measures.</p>	<p>Section 6.13.4.2 of the draft EIS/EA indicates that with the implementation of mitigation for sensory disturbances, such as noise attenuation measures in Section 6.3 and lighting attenuation measures in Section 6.12, the residual effects will be reduced. Further, as noted in Section 6.13.5, the residual effect on Caribou due to the indirect loss of habitat through a semi-permeable barrier to movement dynamics created by linear corridor development. With the application of mitigation measures to ensure connectivity to these habitats including the reduction of lines of sight for predators across corridors in Category 1 habitat by minimizing the removal of woody vegetation in Category 1 habitat and limiting vegetation removal to hazard trees needed for safety and further offset with the approval under the ESA, the magnitude of the residual effect of semi-permeable barriers to movement is considered to be low (Level I).</p> <p>It should be noted that a satellite telemetry collar program has been initiated in February 2023 to obtain additional information on current Caribou habitat use within the regional study area. Further, updated range level disturbance data is being collected. This information will inform the assessment of potential effects to Caribou in the final EIS/EA and support the selection of effective mitigation measures.</p>	EIS Section 6.13.1.4
MON-dEIS-042	6.13.4.3 Change in Population Demography	<p>This section is related to changes in population demography because of project effects. The assessment has some important flaws. First, it seems to assume that the only factor influencing the demography of a population is mortality, as the role of other major factors, including birth rates and migration, is ignored.</p> <p>Demographic processes occur within populations, and, in the absence of population delineation, the management of woodland caribou is done at the range level. Thus, it is inappropriate to consider together the survival of calves or cows from three different ranges. Instead, the assessment should estimate the effects of the project on the demography of each of the three affected ranges.</p>	<p>The response to Comment #36 provides a summary of delineation of the regional study area and associated field program.</p> <p>Further, the annual winter aerial surveys (2021, 2022 and 2023) of population distribution and demography are undertaken at a landscape scale. This is coupled with the satellite telemetry program (initiated in February 2023). These field programs will supplement the existing information used for the final EIS/EA with respect to population distribution, seasonal habitat use and movements, population relative abundance and trend, population structure (demography), annual adult female survival rate, relative distribution and winter core use areas of alternate prey (moose) and predators</p>	EIS Section 6.13.1.4

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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		<p>The assessment concludes that the risk of mortality for woodland caribou due to vehicle collisions is mitigated by the proposed measures. However, it does not make any conclusions regarding the demographic effects of the project.</p> <p>Second, while some mitigation measures are proposed to reduce the effects of the project, there is no empirical support demonstrating the success of those measures and they are all unrelated to potential effects on the demography of the populations.</p> <p>Third, the assessment does not attempt to quantify the effects and does not use the measurable parameters described in Table 6.13.2.2.</p>	<p>(wolves). This data will inform the final EIS/EA with respect to population performance metrics and the effects predictions. Collectively, compensation, offsetting and monitoring approaches will be developed with input from the communities. this data will inform the final EIS/EA with respect to population performance metrics and the effects predictions. The quantification of residual Project effects will consider the measurable parameters in Table 6.13.2.2, which is based on guidance provided by MECP (“Advice regarding Species at Risk criteria considerations of alternatives for the Springpole Mine Environmental Assessment” dated Sept. 23, 2021”).</p>	
MON-dEIS-043	6.13.4.4	<p>The success of the proposed measures to mitigate the effects on the predator – prey dynamics is speculative, as it is not supported by existing research.</p>	<p>The mitigation measures proposed in the draft EIS/EA are based on current best practice and expert opinion. Additional information identified during the review of the draft EIS/EA will be considered and used to update mitigation measures, if warranted, for the final EIS/EA. Proposed mitigations are supported by science literature. For example, reduced line-of-site, minimizing removal of woody vegetation and limiting removal to hazard trees will impede predation by wolves (travel use, movement efficiency and line of site for prey detection). Wolf travel rate is faster if feature use/movement on the linear feature is unimpeded and can result in greater encounter rates with prey (McKenzie et al. 2012[3], Zimmerman et al 2014[4], Dickie et al 2016[5]), but the functional response by wolves is also governed by prey density and linear disturbance density (Messier 1995[6], DeCesare 2012[7], McKenzie et al 2012) and human presence (Zimmerman et al 2014). Wolf travel efficiency is reduced when natural vegetation height exceeds 0.5 m and at least 30% of the linear and at least 30% of linear disturbance veg exceeds 4.1m in relative comparison to adjacent habitat (Dickie et al 2017[8]); wolf movement rates can be reduced by 70% where line of site is reduced to <100m and vegetation heights exceed 1.4 m (Finnigan et al 2014[9]).</p>	EIS Section 6.13.4
MON-dEIS-044	6.13.4.5 Change in Range Scale Habitat Condition	<p>This section evaluates the magnitude of the effects of the project on the range-scale habitat condition. The year of the Environment and Climate Change Canada (ECCC) report on the status of the Churchill range is incorrectly cited as 2020. The referenced report was published in 2017.</p> <p>The magnitude of total natural disturbance in the range lacks the adequate context, as reported by ECCC (2017), and does not acknowledge provincial estimates of disturbance.</p> <p>The ECCC report indicates that the total disturbance in 2012, when the recovery strategy was published, was 31%. In the five-year update presented in 2017, the report informs that total disturbance is 34%.</p> <p>Provincial estimates included in the Integrated Range Assessment for the Churchill range indicate that total disturbance varies between 41.3 and 51.7, depending on the inclusion of waterbodies in the analysis.</p> <p>There are major factors that can affect the provincial and national estimates, as acknowledged in the provincial assessment. For example, the 2012 ECCC estimate does not include significant forest fire events from 2011, unlike the provincial estimate. It is unclear if the 2017 ECCC estimate incorporate those events.</p> <p>Further to the inclusion of context-free data, the assessment of effects fails to relate natural</p>	<p>The disturbance information available federally (ECCC, current up to 2015) and provincially (current up to 2017) is being updated for the Churchill range to inform the final EIS/EA, and will be used to assess the range-level disturbance and probability of population persistence for Caribou.</p> <p>The citation to the Environment and Climate Change Canada (ECCC) report on the status of the Churchill range will be updated for the final EIS/EA. The magnitude of residual effects will be revisited in the final EIS/EA and compensation/offsetting will be further advanced with input from Indigenous communities and refined during the permitting process.</p>	EIS Section 6.13.1.4

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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		<p>disturbance and range sustainability. The 2012 Recovery Strategy (ECCC) set a 65% undisturbed habitat threshold as a critical component of woodland caribou conservation, as it is linked to a 60% probability of self-sustainability of the local population. If we assume that the federal and provincial estimates represent end points in disturbance, two scenarios emerge.</p> <p>If current total disturbance is 34%, the project contribution would put the total disturbance near the 35% threshold. If the current value is 51.7%, instead, the project contribution would only move the total disturbance further beyond the threshold.</p> <p>Irrespective of the magnitude, then, the assessment should acknowledge that the project will result in a reduction of the self-sustainability likelihood of the range, unless the effects are fully mitigated or compensated.</p>		
MON-dEIS-045	6.14.5 Significance of Residual Effects	<p>It is stated in this section that “The Wolverine VC is capable of supporting the predicted residual effects with typical measures, and therefore the ecological and social context is considered low (Level I).” This statement is an example of how the Context attribute of significance determination is incorrectly applied throughout the effect analysis of all VCs. This statement describes resilience of the Wolverine population, which is associated with the Reversibility attribute. Context should actually be stated as the proportion of Wolverine habitat potentially affected by Project activities.</p>	<p>A wolverine program was initiated in January 2023 to collect additional baseline information for inclusion in the final EIS/EA and to support future permitting, including:</p> <ul style="list-style-type: none"> – Demographics / demography (sex, age, structure); – Occupancy / population density; – Habitat use and dispersal; and, – Areas of concentration / activity centres. <p>A tessellated hexagon approach was used, in which one station per hexagon is placed in the most suitable habitat within the hexagon (usually along a river/lake or ridge). The stations include camera and hair traps, and collect information on wolverine identification, sex, and genotype. The cameras and hair traps can provide data on familial relationships, effective population size, dispersal patterns from DNA, survival rates in multi-year studies, lactation in females, centres of activity, population density using capture-recapture models, and behavioral information such as the association of individuals based on the date and time stamp on photographs.</p> <p>Due to the weather conditions in 2023, stations were setup in February (and decommissioned in April.</p> <p>As noted in the response to Comment #1, the ecological and social context attribute is used to describe the sensitivity of the valued component to further changes. Where the valued component is highly perturbed, and further changes could result in adverse effects, the ecological context would be considered high. The characterization of the ecological and social context will be clarified in the final EIS/EA.</p>	EIS sections 6.14.1.2, 6.14.7.
MON-dEIS-046	Assessment of Effects: Wolverine	N/A	N/A	EIS Section 6.14
MON-dEIS-047	6.15.5 Significance of Residual Effects	<p>The assessment of effects on bats omits predicting the potential impacts of the destruction of the candidate hibernaculum Cliff6. Although confirmation is pending, its consideration is highly relevant for the assessment.</p> <p>If confirmed as a hibernaculum, its destruction could have significant adverse effects on bat populations. The availability of hibernacula is generally low, and bats may travel long distances to hibernate in them. Thus, hibernacula may limit bat populations and the effects of their destruction may be experienced over large geographic scales.</p> <p>Given its relevance, the assessment should evaluate the potential adverse effects of its destruction.</p>	<p>The mitigation measures proposed in the draft EIS/EA are based on previous data collection. Additional data was collected in 2022, and will be considered, along with feedback received during the review of the draft EIS/EA, to update the effects assessment and mitigation measures, if warranted, for the final EIS/EA.</p>	EIS Section 6.15.7

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

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MON-dEIS-048	6.16.2.3 Spatial and Temporal Boundaries	<p>The assessment of effects at the regional scale includes a 10-kilometre buffer from the PDA, including the transmission line route. However, the suitability of this scale to evaluate cumulative effects on the populations of Species at Risk Birds is questionable.</p> <p>Environment Canada recommends that the adequate spatial scale to assess the cumulative environmental effects on birds is the Bird Conservation Region.</p> <p>The Bird Conservation Region scale is more likely to reflect the demographic processes affecting the dynamics of bird populations.</p>	<p>As noted in Section 6.16.2.3 of the draft EIS/EA, the local study area (LSA) for SAR birds is defined as a 2 km buffer from the project development area (PDA). The LSA includes consideration of direct overprinting of habitat, as well as indirect effects associated with sensory disturbance. The LSA encompasses the transmission line route and includes a 1 km buffer from the centreline as the outer extent where potential effects are anticipated to occur. With respect to the regional study area (RSA) for SAR birds has been defined as a 10 km buffer from the PDA, including the transmission line route.</p> <p>The description of the LSA and RSA will include consideration for the use of ecologically defined boundaries based on recommendations from Environment and Climate Change Canada to consider watersheds and patterns in land cover. As a result, the RSA is considered to be suitable to evaluate cumulative effects on SAR birds.</p>	EIS Section 6.16.1
MON-dEIS-049	6.16.2.5 Assumptions and the Use of the Conservative Approach	<p>The assessment claims that the assumptions are likely to overestimate the effects on birds. However, there is little support for that claim in the information presented.</p> <p>It is argued that progressive rehabilitation during construction and operation will be completed, but it is not accounted for. However, the assessment does not present evidence demonstrating the success of rehabilitation measures in creating habitat that is effectively occupied by the species affected.</p> <p>The assessment also claims that the amount of habitat removed is overestimated. This claim is difficult to evaluate because habitat can be removed without clearing the existing vegetation. This would be the case, for example, when the quality of a patch is degraded due to disturbance in surrounding habitat.</p> <p>The chosen approach that assumes that all habitat is removed, and that no rehabilitation occurs is correct, because it addresses the uncertainty. However, it is not adequate to claim that it would result in overestimation of the effects.</p>	<p>It has been assumed that all the habitat within the project development area (PDA) has been removed during construction for the Project. In reality, some areas within the PDA may not be removed, and therefore the assumption would tend to overestimate the actual impacts.</p> <p>In addition, it has been assumed that rehabilitation measures would not occur until the closure phase and any offsetting of habitat loss / disturbance would not occur until that time. In reality, progressive rehabilitation may occur during the operations phase, and as a result, this would result in an overestimation of the actual impacts.</p> <p>Overall, the assumptions used in the Section 6.16.2.5 provide a conservative approach that results in an overestimation of effects.</p>	EIS Section 6.16.1
MON-dEIS-050	6.16.4.1 Eastern Whip-poor-will	<p>The assessment of effects on eastern whip-poor-will concludes that there are no predicted residual effects due to habitat destruction. This conclusion is largely supported by the implementation of rehabilitation and reclamation measures. However, this conclusion is flawed for two reasons.</p> <p>First, the analysis estimates the availability of habitat for this species without considering the needs described in the federal Recovery Strategy. This document shows that the nesting and foraging habitats of eastern whip-poor-will do not necessary overlap. Thus, the quantification at all scales may overestimate the amount of suitable habitat available. Specifically, the analysis presented does not include consideration of the availability of foraging habitat.</p> <p>In second place, the conclusion of the assessment is based on the predicted success of the rehabilitation and reclamation measures. However, there is no information demonstrating the success of those measures and describing the extent of their application.</p> <p>Thus, it can be argued that the conclusion of the assessment is not adequately supported by the analysis presented.</p>	<p>Collectively, compensation, offsetting and monitoring approaches will be developed with input from Indigenous communities.</p> <p>Baseline surveys for Eastern Whip-poor-will (EWPW) for the Project have substantially expanded the baseline knowledge for EWPW in both distribution and abundance of this SAR in this region of Ontario. Prior to these baseline survey efforts, there were no confirmed records of EWPW in this region. The Project is located in an area well north of the currently published range boundary for EWPW in the federal recovery strategy (MECP 2019). Previously, this species has largely been associated with mixed deciduous ecosystems associated with the Great Lakes in south and central Ontario (MECP 2019[10]). Previous surveys for EWPW for multiple years between 2012 and 2019 occurred in areas around the proposed mine footprint that were accessible in areas with the best available habitat for EPWP using ARU's and EWPW was not detected in any year.</p> <p>Considering previous comments received from MECP SARB on the baseline studies for the Project, and given the lack of detections up to 2021 and the limited public data available to confirm the prevalence and distribution of this SAR in the boreal region of Ontario, in 2021 EWPW surveys were substantially expanded in both spatial extent and sampling effort to attempt to detect this species in areas with no road access in a wider variety of habitats including coniferous stands, wetlands, and the mixed and deciduous stands, burn and forestry disturbed edges that occur south of the proposed Project site. This preliminary approach was successful, as the first EWPW's were detected during the</p>	EIS Section 6.16.1.2, 6.16.4, 6.16.5.1

Table C-5.2: First Mining Gold Response to Mishkeegogamang Ojibway Nation Comments on the Draft Springpole Gold Project Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	FMG Response	Where Addressed
			baseline surveys in that year. Unfortunately, surveys had to end early in 2021 due to the forest fire in June, however the team were still able to successfully collect all deployed autonomous recording units (ARU) before evacuating site. After this successful detection in 2021, survey efforts in 2022 were then expanded even with more than double the ARU deployments across a suite of suitable habitat types as well as vegetation surveys and mapping of these habitats.	
MON-dEIS-051	6.16.4.2 Barn Swallow	The assessment erroneously claims that implementation of pre-construction surveys will mitigate the loss of “nesting habitat” for barn swallow. While pre-construction surveys may prevent the incidental take of barn swallows, it is not sufficient to mitigate the loss of habitat.	<p>Barn Swallow is considered as a migratory bird under the Migratory Bird Convention Act (and the associated Migratory Birds Regulation). Further, the nests of Barn Swallow are protected under the federal Species At Risk Act. Barn Swallows are closely tied to locations where they have nested before; fidelity to nesting locations appears to be greater than fidelity to specific nests (Shields 1984)[11], as referenced in the residence description (ECCC 2019)[12].</p> <p>Pre-construction surveys will identify actively used nesting habitat so that Project activities avoid these areas during construction and operations. However, Barn Swallow nests are commonly built on human-made structures that provide either a horizontal nesting surface (such as a ledge) or a vertical face made of rough or unfinished material (e.g., concrete, wood) or with a projection of some sort to help support the nest, often with some sort of overhang. These structures include buildings, wharves, and bridges. During and post-construction, these structure types will be available and further mitigation is not required for inactive nesting habitat.</p>	EIS Section 6.16.4
MON-dEIS-052	6.21.4.1 Changes in the Availability, Access to and Experience related to Traditional Wildlife Harvesting	<p>The assessment of changes in the availability of harvested wildlife species replicates the analysis presented in the assessment of effects on wildlife. Thus, the flaws of wildlife assessment are also present here.</p> <p>The analyses that support the wildlife assessment treat all types of habitats as equal. For instance, it predicted the loss of the same amounts of habitat for moose, wolf, and black bear. Further, the analyses extrapolated the amounts of habitat lost to the extent of the RSA.</p> <p>It is unclear whether the percentage represented by the habitat lost is relative to the total area of the RSA, the total availability of that habitat type within the RSA, or the total availability of habitat suitable to each species within the RSA.</p> <p>The appropriate way to analyze the magnitude of the effects would be to estimate the area of habitat to be destroyed that is suitable for each species. For example, what percentage of the 1,493 hectares is suitable moose, boreal owl, wolf, or black bear habitat? Then, the same analysis should be conducted at the RSA level to estimate the total amount of available habitat suitable for each of those species.</p> <p>From a technical perspective, this section is deficient, and the estimated effects are undoubtedly biased. Further, the direction of the biases is unknown and, thus, it prevents the adequate evaluation of the potential impacts of the project.</p>	<p>As noted in the response to Comment #32, Section 6.12.4.1 of the draft EIS/EA assumes that moose, wolf and black bear use similar vegetation communities including coniferous, deciduous and mixed treed cover types, along with treed wetlands. In addition, moose forage in non-treed wetlands, including marsh, bog and fens.</p> <p>The direct habitat loss for each wildlife species within the project development area was compared to the same combination of cover types for the species within the regional study area.</p>	EIS Section 6.21.7.1
MON-dEIS-053	6.21.4.2 Changes in the Availability, Access to and Experience related to Traditional Fishing	<p>The assessment concludes that the effects due to the loss of fish habitat will be fully mitigated and offset by the Offsetting and Compensation Plan, and that no residual effect is predicted.</p> <p>As discussed above, the proposed Fish Habitat Offsetting and Compensation Plan is insufficient.</p> <p>Thus, the conclusion of the assessment is not supported by the data presented and, in the absence of a suitable offsetting plan, the project may adversely affect the rights of Indigenous land users.</p>	As per the above responses, further discussions with Indigenous communities and government agencies will inform the preferred fish offsetting measures that will be presented in a revised Fish Habitat Offsetting and Compensation Plan.	EIS Section 6.21.7.2 Appendix F.

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ID	Specific Reference	Initial Comments & Rationale	FMG Response	Where Addressed
MON-dEIS-054	6.21.4.3 Changes in the Availability, Access to and Experience related to Traditional Plant Harvesting	<p>The assessment indicates that the locations of plant harvesting sites used by Indigenous communities were not identified. However, the vegetation and wetlands assessment should have been able to identify areas where the species used could be present. Why was that not done?</p> <p>The analysis presented mirrors that conducted in the assessment of effects on vegetation communities and wetlands. This approach is inappropriate because it disregards the uniqueness and value of the communities used in traditional harvesting. Further, the approach treats all vegetation communities as equal and assumes that the abundance of traditional resources is equivalent in all areas. While this may be the case in large scale analysis, these assessment does not present data or a strong rationale to support that assumption.</p> <p>During the supporting field studies, the proponent obtained data on the distribution and abundance of plant species, and validated the classification based on the Far North Land Classification System. The data collected should suffice to test if traditionally harvested plants are homogeneously distributed across vegetation communities. The data could then be used to obtain a more accurate estimate of the change in the availability of traditionally harvested plants at several scales.</p>	<p>The final EIS/EA will identify areas for potential traditional plant harvesting as part of the effects assessment for traditional land and resource use, where plant species of interest are provided through traditional knowledge studies.</p> <p>FMG looks forward to receiving the traditional knowledge study from Mishkeegogamang. As further input is received from Indigenous communities during the review of the draft EIS/EA, Section 6.21 will be updated in the final EIS/EA.</p>	EIS Section 6.21.6.3
MON-dEIS-055	7.8 Caribou	<p>The scale used and assumptions made in the analysis are inadequate and not supported by evidence. Further, the analysis is confusing and, ultimately, focuses on the comparative magnitude of the effects between different activities instead of the combined effects on the viability of the Churchill range.</p> <p>As mentioned previously, the management of woodland caribou at the range level is widely accepted by federal and provincial agencies in the absence of population delineation data. Further, it has been established that a threshold in range-level disturbance (i.e., cumulative), is linked to the probability of self-sustainability of the range. Thus, it would be most appropriate to examine the project contribution to the total disturbance within the range and the projected contribution of other activities.</p> <p>The assessment should acknowledge that the cumulative contributions to disturbance in the Churchill range move against the recovery objectives for woodland caribou, irrespective of their magnitude.</p> <p>The analysis of cumulative effects assumes that the proposed mitigation measures are sufficient to mitigate residual effects on woodland caribou. However, as it was pointed out in a previous section, the success of the mitigation measures is unproven, and the implementation timeline may involve major time lags.</p>	<p>Updated disturbance data for the Churchill Range is being collected, in collaboration with forestry companies operating in the area. This data, along with the recent aerial survey data and ongoing caribou satellite telemetry data, will be considered in the assessment of cumulative effects for the final EIS/EA.</p> <p>Compensation, offsetting and monitoring approaches will be further advanced with input from Indigenous communities and refined during the permitting process.</p>	EIS Section 6.13 Appendix P-1, P-2