Table 1: Responses to Technical Advisory Committee (TAC) Review Comments to the 'Proponent Response to TAC Comments' posted March 14, 2019 in the Public Registry

***NOTE: where text is included as: "*Regarding Proponent response to #XX*" this is in reference to numbered 'Issues/Questions Raised' in the 'Proponent Response to TAC Comments' posted March 14, 2019 in the Public Registry**

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
Population and Public Health Branch, Manitoba Health, Seniors and Active Living – Apr. 9, 2019	1	*The key ongoing concerns which require monitoring and potential mitigation strategies from a public health perspective include: air quality, noise, traffic safety and dust management. It is recommended that provincial guidelines and standards not be exceeded during the project operation.*	The measures proposed within the Environment Act Proposal (EAP) are intended to mitigate potential adverse Project effects on public health related to air quality / dust, noise and traffic safety. Also refer to the revised Air Quality Report and Traffic Memorandum submitted as Attachments A and D, respectively, as part of the responses to Technical Advisory Committee (TAC) review comments to the EAP posted in the public registry on March 14, 2019. The key measures proposed to mitigate fugitive dust, as indicated within the EAP, include: • The silica sand wash and dry facility, including all conveyors and transfer points, will be enclosed and under negative pressure to allow fines to be collected in a bag house fabric filter dust collection system to minimize dust projection • Sand truck transport loads will be completely contained with a waterproof sealed load cover which will mitigate dispersion of silica sand fugitive dust during transport • Sand transport trucks will utilize paved roads rather than gravel roads that can generate dust • The main Project Site access road will be paved, and CPS will pave and maintain the segment of the Hollow Water Main Road leading from the Project Site entrance to PR 304, and the currently unpaved section of PR 304 from Hollow Water Main Road to Manigotagan to the appropriate Manitoba Infrastructure roadway standards, and pending obtaining required permits from Manitoba Infrastructure, to accommodate heavy truck traffic Respirable dust levels and other air quality pollutants will be measured in accordance with an Air Quality Monitoring Plan (Section 8.3 of the EAP) and in accordance with a Project Environment Act Licence conditions. The Air Quality Monitoring Plan will be developed by AECOM on behalf of CPS as part of the Environmental Management Program, and will be submitted to MBSD, Environmental Assessment Branch for review and approval prior to the initiation of Project operation. A draft Environmental Management Program document will be submitted to MBSD for review and comment in April 2019. If Project adverse effects exceed regulatory limits, CPS will contact Manitoba Sustainable Development (MBSD) and will implement required adaptive management measures in discussion with MBSD.	EAP, Section 6.5.1, Air Quality EAP, Table 6-5: Air Quality EAP, Section 8, Air Quality Monitoring EAP, Section 6.5.2 Noise EAP, Section 6.7, Traffic EAP, Table 6-5: Transportation **Additional proposed mitigation:** Dust suppression activities, such as the use of approved dust control agents, will be undertaken when and where required to sufficiently mitigate airborne particulate matter. CPS is developing an Environmental Management Program, which will be applied during construction and/or operation of the facility, as required. A draft Environmental Management Program document will be submitted to MBSD for review and comment in April 2019. Environmental management plans proposed to be included within the Environmental Management Program are as follows: • Dust Management Plan • Air Quality Monitoring Plan • **Erosion and Sediment Control Plan*** • **Surface Water Management Plan*** • **Heritage Resources Management Plan*** • Groundwater Monitoring Plan • Revegetation Monitoring Plan • **Emergency Response Plan *** * The plans indicated above in bold will be in place before the start of Project construction, with the other plans in place prior to the start of Project operation. The Environmental Management Program and Plans will be reviewed annually as required, and revised as needed. Required reporting will be provided to MBSD as stipulated in the Environment Act Licence (EAL).
	2	*Can information be provided about the location of human residences to the quarry site?*	The locations of each annual quarry cell, and the sequence of quarry cell development within the Project Site Area over the 54 year life of the Project, are to be determined based on the results of on-going geotechnical studies. Quarry cells may be located within those CPS quarry lease areas that are outlined by the Project Site Area Boundary as indicated in Figure 1-1 in the EAP. The nearest known permanent human residences to the Project Site Area Boundary were estimated using GoogleEarth™ satellite imagery and are illustrated in Figure 3-1 of Appendix F 'Noise Impact Assessment' in the EAP, which indicates that the nearest residence is approximately 380 m north of the Project Site Area Boundary.	N/A
	3	*How much dust will be generated from quarrying activities, and will it impact local residents?*	To provide a conservative estimate of the potential amount of dust (Particulate Matter [PM]) generated due to Project activities, the revised Air Quality Report (provided as Attachment A responses to TAC review comments to the EAP posted in the public registry on March 14, 2019) provides estimates of PM_{10} and $PM_{2.5}$ that may potentially be generated, only under the 'worst-case scenario' days of	EAP, Section 6.5.1, Air Quality EAP, Table 6-5: Air Quality EAP, Section 8.3, Air Quality Monitoring

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
			extended long, dry, hot weather during non-winter months coupled with high winds. Possible predicted 24-hr average concentrations of particulate matter (PM_{10}) is below the MAAQC limit of 50 µg/m^3 with the possible exception of sites within Seymourville and Wanipigow located 3.2 km and 4 km, respectively, from the facility location where PM_{10} may exceed Manitoba Ambient Air Quality Criteria (MAAQC) limit guideline by up to 4.6 µg/m^3 of PM_{10} under worst-case scenario conditions. Further investigation into the results generated by the air dispersion model, indicate that the minor predicted exceedances of PM_{10} in the vicinity of some residences in Seymourville and Wanipigow is from dust that is not 100% Project-activities generated. Approximately 52% to 53% of the PM_{10} predicted exceedance in those communities is attributable to general project activities, and approximately 47% to 48% is attributable to other estimated existing ambient sources, which for this location, would primarily be dust generated from the existing gravel road by Seymourville and Wanipigow. As part of the Dust Management Plan, when guideline exceedances in dust particulate matter occur, CPS will apply approved dust control agents when and where required, such as segments of community roads, to sufficiently mitigate airborne particulate matter. One of the additional contributors to the PM_{10} exceedances are the quarry overburden berms. The proposed mitigation strategy will be for the facility to develop a Dust Management Plan. The Dust Management Plan that is developed for the Project will include dust suppression on the two quarry overburden berms, including the addition of water to the berms to increase dust control efficiency, as needed. The addition of water to the berms would cause aggregation and cementation of fines to the surfaces of larges particles, and the potential for dust emissions would be greatly reduced. This is outlined in United States Environmental Protection Agency, *13.2.4 Aggregate Handling and Storage Piles* (AP-42: Compilation of Air Emissions Factors, November 2006), retrieved November 2018 from: https://www3.epa.gov/ttnchie1/ap42/ch13/final/c13s0204.pdf. Water applied to quarry overburden berms, as required to control fugitive dust, will be sustainably sourced from a combination of groundwater, water from seepage within the annual open quarry pit, and supplemental water (as required) that will be trucked to the Project site from a licenced source (Section 2.9 'Water Use' in the EAP). Water runoff from the quarry overburden berms will be contained within Project Site ditching that will direct water runoff to a sump pit in the active quarry cell for use in the sand wash plant for process water (Section 6.3.1 'Surface Water Quality' in the EAP). As indicated in Table 11 of the revised Air Quality Report provided as Attachment A as part of the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019, the size of quarry overburden berms will be limited to approximately 3 metres high and 200 metres long. No potentially acid-generating or metal leaching material will be present within the quarry overburden berms. The black shale layer known to have the potential for metal leaching / acid rock drainage (ML/ARD) will be isolated within the active quarry cell using mitigation measures as indicated in the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019 (also see proposed mitigation summary for this response in the next column). Smaller particulate matter ($PM_{2.5}$) is of greater concern because these particle sizes are small enough to be inhaled directly into the lungs. The isopleth maps shown in the revised Air Quality Report predict no 24-hr average concentration exceedances beyond MAAQC for $PM_{2.5}$ at sensitive receptors. Air quality monitoring studies in the vicinity of silica sand facilities in Minnesota and Wisconsin have indicated that those facilities do not generate any hazardous levels of $PM_{2.5}$ in the ambient air near these operations (Orr and Krumenacher 2015). As indicated in Section 8 'Air Quality Monitoring' of the EAP, an Air Quality Monitoring Plan will be developed by AECOM on behalf of CPS for the Project operation phase and will be submitted to MBSD, Environmental Assessment Branch for review and comment. If the Air Quality Monitoring Program	**Additional proposed mitigation:** Dust suppression activities, such as the use of approved dust control agents, will be undertaken when and where required to sufficiently mitigate airborne particulate matter.CPS is developing an Environmental Management Program, which will be applied during construction and/or operation of the facility, as required. A draft Environmental Management Program document will be submitted to MBSD for review and comment in April 2019. Environmental management plans proposed to be included within the Environmental Management Program are as follows: • Dust Management Plan • Air Quality Monitoring Plan • **Erosion and Sediment Control Plan*** • **Surface Water Management Plan*** • **Heritage Resources Management Plan*** • Groundwater Monitoring Plan • Revegetation Monitoring Plan • **Emergency Response Plan *** * The plans indicated above in bold will be in place before the start of Project construction, with the other plans in place prior to the start of Project operation. The Environmental Management Program and Plans will be reviewed annually as required, and revised as needed. Required reporting will be provided to MBSD as stipulated in the Environment Act Licence (EAL). ML/ARD mitigation will include: • Isolating the black shale during mining; • Encapsulating the black shale in a clay lined pit within an active quarry cell; • Covering the black shale with a crushed limestone layer for neutralization; and • Proceeding with progressive quarry cell reclamation activities as outlined in the Project Closure Plan.

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
			detects air quality exceedances that require mitigation, an adaptive management approach to address exceedances will be developed and discussed with MBSD.	
	4	*Will respirable silica dust levels be measured?*	Yes, respirable silica dust levels will be measured in accordance with an Air Quality Monitoring Plan (Section 8.3 of the EAP) and in accordance with a Project Environment Act Licence conditions. The Air Quality Monitoring Plan will be developed by AECOM on behalf of CPS as part of the Environmental Management Program, and will be submitted to MBSD, Environmental Assessment Branch for review and approval prior to the initiation of Project operation. A draft Environmental Management Program document will be submitted to MBSD for review and comment in April 2019.	EAP, Section 8.3, Air Quality Monitoring
	5	*During dry dusty conditions when air quality concerns are anticipated, what is the strategy to monitor for and mitigate air quality issues?*	Details of the proposed Air Quality Monitoring Plan and Dust Management Plan will be provided to MBSD by AECOM on behalf of CPS prior to the Project operation phase. Measures to mitigate fugitive dust are provided in Section 6.5.1 'Air Quality' in the EAP.	Refer to applicable proposed mitigation summary items provided above for question #1.
	6	*With regard to traffic safety and other potential emerging issues that affect health, communities next to large projects such as this have often developed community advisory committees to liaise with the company to address any emerging issues as they evolve. Concerns generated from these groups could be raised to Sustainable Development as necessary.*	As indicated in Section 6.6.8 'Overall Impact on the Socioeconomic Environment' in the EAP, CPS and Hollow Water First Nation (HWFN) will jointly be establishing an Operational Oversight Committee that will meet no less than quarterly to review and approve third-party compliance data, quarrying plans, and restoration and rehabilitation activities. This committee will also be responsible for annual investigation of the area to be disturbed for the coming year.	Establishment of an Operational Oversight Committee consisting of members of the local community (Section 6.6.8 of the EAP).
	7	*Can information be provided on whether any influx of workers is expected to come into the area and where they would live? Are all workers expected to be local? Community planning is often needed to support changes in population and demographics and prevent adverse consequences.*	The estimated number of employees required for the Project construction and operation phases is provided in Section 2.8 'Employees' of the EAP. Although it is not possible to state the number of local workers that will be retained during this early development phase of the proposed Project, CPS will encourage qualified local people to apply for advertised employment positions and will be providing ongoing worker training in 2019. As indicated in Section 2.8 of the EAP, there will be no worker camp on-site. Employees required for Project construction and operation will be housed in their current homes, or additional housing may be provided by CPS in local communities while CPS is supporting the development of permanent affordable housing for Project employees in the local area. As indicated in Section 4.6.2.1 'Employment Rate' in the EAP, unemployment rates in the Local Project Area range from 22.2% to 40.0% which is up to 5.1 times higher than the provincial average of 6.7%. **The Project is anticipated to contribute substantially to reducing the Local Project Area unemployment rate which is expected to be an overall benefit to local communities.** As indicated in Section 5.3 'Additional Community Outreach' in the EAP, CPS has entered into an Economic Participation Agreement with HWFN, on November 22, 2018, that provides for various economic and social benefits and opportunities, including employment, contracting and training initiatives.	N/A
Air Quality Section, Environmental Compliance and Enforcement Branch, MBSD – April 9, 2019	8	*Although the proponent has mentioned that no crushing or grinding activities will be conducted during the quarrying process, there is still a potential for crystalline silica or other silica materials to be re-suspended or airborne during the processing (ex. handling, storage piles, transport, breaking of lumps). It is suggested that crystalline silica emission estimation be undertaken and its mitigation measures.*	As indicted in Section 2.2.1 'Quarry Methods' in the EAP, The sand that is extracted from the active quarry has inherent moisture content (i.e. is not 'dry'). Therefore, dust related to the sand being extracted from the quarry will be minor to negligible with the possible exception of 'worst-case scenario' days of extended long, dry, hot weather during non-winter months coupled with high winds. The revised Air Quality Report provided as Attachment A as part of the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019, provides an estimate of particulate matter (PM) under the these worst-case scenario conditions. Smaller particulate matter ($PM_{2.5}$) is of greater concern because these particle sizes are small enough to be inhaled directly into the lungs. The isopleth maps shown in the revised Air Quality Report predict no 24-hr average concentration exceedances beyond MAAQC for PM2.5 at sensitive receptors.	Refer to applicable proposed mitigation summary items provided above for question #1 (e.g. Dust Management Plan).

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
	9	*As the modeling results show some exceedances of PM_{10} and $PM_{2.5}$, Air Quality Section suggest that the Best Available Control Technologies (BACT) be implemented to manage particulate matter emissions.*	As indicated in the response to TAC Question #1 in the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019, the design-build contractor, Turnkey Processing Solutions (TPS), provides the Best Available Control Technologies (BACT) for fugitive emissions (e.g. dust) mitigation for its silica sand plant designs. TPS has designed and built over 20 dust control systems for silica sand plants throughout North America. Independent third party testing, mandated by regulatory agencies, has proven over time that TPS dust control technologies out-perform all regulatory requirements. This BACT will be applied in all facets of dust control.	Refer to applicable proposed mitigation summary items provided above for question #1 (e.g. Dust Management Plan).
Resource Development Division, Manitoba Mines and Geological Survey Branch, Manitoba Growth, Enterprise and Trade – April. 8, 2019	10	*CPS is required to have a mine closure plan approved with adequate financial assurance prior to starting operation on the site in order to be compliant with legislation.*	A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment. Regarding the need for adequate financial assurance prior to starting Project operations, the response provided for Public Question CP1 in the responses to Public review comments to the EAP posted in the Public Registry on March 14, 2019, was as follows: *CPS will provide financial assurance as required by applicable regulatory departments.* To clarify, the 'financial assurance' or 'bond' is funding set aside by the proponent (CPS) that includes the provision of security to the Crown for performance of rehabilitation work, which is in accordance with Sec. 1 of *The Mines and Mineral Act* regarding the definition of a Closure Plan. As indicated in Section 7 of the EAP, a Closure Plan will be developed and submitted to Manitoba Growth, Enterprise and Trade and MBSD for this Project in accordance with the Manitoba Mine Closure Regulation 67/99. The proposed Project will be constructed, operated and closed in accordance with an Environment Act Licence and associated conditions.	EAP, Section 7, Closure Plan EAP, Section 8.4, Closure Plan Review **To be included within the Closure Plan:** • Annual reclamation plan and reporting • Annual meetings with MBSD and the CPS Community Oversight Committee to review the rehabilitation progress
Lands Branch, Eastern Region, (no date)	11	***Regarding Proponent response to #10:** *An initial closure plan should be submitted during the review process and prior approval of the EAL. Information provided is not sufficient to ensure proper rehabilitation will be conducted on site.*	A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment. The proposed Project will be constructed, operated and closed in accordance with an Environment Act Licence and associated conditions.	N/A
	12	**Regarding Proponent response to #9:** "*… the underlying silica sand deposits, which are unique to the project site area, are expected to influence local vegetation /ground cover characteristics, and in* [so] *doing would be expected to create fine scale habitat conditions that would not neccessarily be common in the regional project area. Tables 4.1 — 4.3 confirm that the vegetation mosaic (tree/stand types) in the project site area is different than that in the regional project area, and the reconnaissance surveys do not include any additional information at a finer scale (e.g. shrub and ground cover).*	A review of existing Manitoba Land Initiative data, on-site terrestrial reconnaissance and information shared by local community members during a Project Traditional Ecological Knowledge (TEK) study have suggested that no land cover or habitats considered rare or unique for the Regional Project Area and larger Lac Seul Upland Ecoregion exist in the Project Site Area. Additionally, the total area to be disturbed over the life of the Project, notwithstanding the annual quarry cell progressive revegetation, will be 353 ha which represents 15% of the 2,289 ha of CPS quarry lease areas, and 0.00002% of the Lac Seul Ecoregion area within which the Project is located which does not represent a significant potential impact to vegetated land cover in the region.	EAP, Section 6.4.1, Vegetation EAP, Table 6-5: Vegetation EAP, Section 8.1. Success of Revegetation Efforts EAP, Section 7, Closure Plan EAP, Section 8.4, Closure Plan Review **To be included within the Closure Plan:** • Annual reclamation plan and reporting • Annual meetings with MBSD and the CPS Community Oversight Committee to review the rehabilitation progress A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment. **To be included in the annual Revegetation Monitoring Plan reporting:** Progress of revegetation including photographs and maps
	13	*Regional MBSD staff look forward to reviewing the Closure Plan and participating in the annual meetings, which we assume will include site visits to view the progress of rehabilitation.*	A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment. The proposed Project will be constructed, operated and closed in accordance with an Environment Act Licence and associated conditions.	N/A
	14	**Regarding Proponent response to #11:** Concern regarding site security: "*Our experience with other developments is that truckers will not open and close gates during active haul periods, accordingly, it would not be reasonable to expect that the gates will be locked when hauling is occurring. And…since hauling will be occurring continuously, we are anticipating that*	Please see the response provided for TAC Question #11 in the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019: i.e., *In addition to having gates at both access roads, CPS will employ site security to deter unauthorized access to the facility when the gates are not locked.*	Please see the additional proposed mitigation provided for TAC Question #11 in the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019: i.e., *CPS will employ site security to deter unauthorized access to the facility when the gates are not locked.*

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
		the gates will be open most of the time, unless the proponent plans to have security staff open and close the gates for each truck."		
	15	**Regarding Proponent response to #13:** *Please provide a map depicting how mining is expected to begin and proceed in the first few years of operation. This will be particularly important as a timber sale is currently in effect (and a work permit issued), which will result in forest cover being cleared in the project footprint area. The two activities should be coordinated to ensure that forest harvest occurs in a manner consistent with the proponent's commitments in the EAP* [Environment Act Proposal] *respecting construction and maximum annual cleared areas.*	Result from on-going geotechnical investigations in 2019, during this exploratory phase, will provide information later in 2019 that will be required to inform the sand extraction activity locations during the Project operation phase. The proposed Project will be constructed, operated and closed in accordance with an Environment Act Licence and associated conditions. Licenced Timber harvesting activities that are currently in progress within the Project Site Area are not being conducted by CPS. Those activities are being conducted by Hollow Water First Nation in accordance with a Forestry Sale Agreement which includes a limited timber harvest volume/area.	N/A
	16	**Regarding Proponent response to #14:** *We look forward to receiving and reviewing the EMP and request that it include a wildlife monitoring component designed in a manner that potential effects of the project can be assessed, and adaptive mitigative measures can be applied as required. We recommend that the proponent consult with MBSD staff in the development of the wildlife monitoring component.*	The proposed Project will be constructed, operated and closed in accordance with an Environment Act Licence and associated conditions.	N/A
	17	**Regarding Proponent response to #15:** *The information in Table 4-1* [of the EAP] *suggests that the Project Area appears to be different from what is present in the Regional Area. For example, the Local Project Area appears to be substantially higher, drier and appreciably more deciduous-dominated compared to the Regional Project Area. The on-site general reconnaissance conducted October 10-12 and documented in Appendix C appears to be focused primarily on tree species/stand types (no shrub/ground cover information) and will provide insufficient baseline data to allow for a meaningful assessment of rehabilitation measures.*	To support in Project Site land cover information provided in Table 4-1 of the EAP, photographic documentation of representative cover types, including shrub/ground cover is provided in Appendix C of the EAP. The intent of the quarry rehabilitation and revegetation efforts is to restore the landscape to native conditions to the extent feasible. Quarry rehabilitation will be initiated using approved native seed mixture and sapling plantings on redistributed soil stockpiled material and it is anticipated that previously existing shrub/groundcover will naturally establish over time. Quarry rehabilitation will be done in accordance with requirements within a Project Environment Act Licence and approved Revegetation Monitoring Plan and Project Closure Plan. A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment.	EAP, Section 6.4.1, Vegetation EAP, Table 6-5: Vegetation EAP, Section 8.1. Success of Revegetation Efforts EAP, Section 7, Closure Plan EAP, Section 8.4, Closure Plan Review **To be included within the Closure Plan:** • Annual reclamation plan and reporting • Annual meetings with MBSD and the CPS Community Oversight Committee to review the rehabilitation progress A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment. **To be included in the annual Revegetation Monitoring Plan reporting:** Progress of revegetation including photographs and maps
	18	**Regarding Proponent response to #18: '"…***if there are other layers of information that will contribute to our understanding of moose abundance/frequency of hunting, e.g. aerial surveys, GPS collar data, officer reports, etc., then these sources should be considered along with the community-based information***."**	To the knowledge of AECOM, the most recent, relevant and available information regarding moose abundance information was considered in the EAP. The most recent and relevant information regarding moose frequency in the Local and Regional Project Areas was obtained during a TEK session conducted in Hollow Water First Nation in October 2018 and is provided in Section 4.3.2 of the EAP. TEK information regarding the comparative frequency of moose hunting in the Local Project Area vs. the larger regional area is provided in Appendix G2 in the EAP.	N/A
	19	**Regarding Proponent response to #18:** *The information provided in Appendix G of the EAP states that there is not much if any* *current or past traditional moose hunting in the project area and that moose and deer have not been seen in the area but that moose and deer tracks have been observed. It is not clear, however, whether these statements refer to the project site area, or the regional project area...***"**	To clarify, "Project area" as indicated in Section 3.1.2 'Hunting' in Appendix G of the EAP is in references to the Project Site Area and extends to the Local Project Area.	N/A

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
	20	**Regarding Proponent response to #18:** *MBSD's information confirms that moose are present in both the project site area and the regional project area, and that moose hunting by indigenous peoples occurs in these areas, including hunting by members of communities other than Hollow Water FN.*	AECOM agrees that moose are likely present in both the Project Site Area and the Regional Project Area. As indicated in Section 4.3.2 'Wildlife' in the EAP, TEK information has indicated that "…*moose are not common in the Regional Project Area*." Noting that the Regional Project Area is the area defined in Section 3.2 'Spatial Boundaries' as being up to 10 km beyond the Project Site. Refer to the response to #17 above regarding information about moose hunting.	N/A
	21	**Regarding Proponent response to #19: "…***TEK represents one layer of information, and if there are other layers of information that will contribute to our understanding of caribou occupancy in the area, then these sources should be considered along with the community-based information"*	To the knowledge of AECOM, the most recent, relevant and available information regarding caribou abundance information was considered in the EAP. The most recent and relevant information regarding caribou frequency in the Local and Regional Project Areas was obtained during a TEK session conducted in Hollow Water First Nation in October 2018 and is provided in Section 4.3.2 of the EAP, i.e. "…*caribou are not seen in the Regional Project Area*".	N/A
	22	**Regarding Proponent response to #19:** The information provided in Appendix G of the EAP states that caribou are not seen or hunted in the project area. It is' not clear, however, whether this statement refers to the project site area, or the regional project area, as section 4.6.4.2 of the EAP states that Caribou hunting does not occur in the Local Project Area (Appendix G1). Therefore, the potential socioeconomic effects of the Project on caribou hunting will not be assessed in this document. MBSD's monitoring information indicates no evidence of caribou within the project site area. However, the portion of the regional project area north of the Wanipigow River is within the range of the Atiko woodland caribou herd. MBSD is not currently actively monitoring the Atiko caribou herd, but previous monitoring studies have confirmed the presence of caribou within the regional project area, and there is no evidence to suggest that this is no longer the case.	AECOM has relied on TEK information regarding the presence of caribou within the Regional Project Area (see response to #20 above). AECOM considers information from the TEK Elders group, and their collective knowledge of the local and regional land and resources use, to be the most relevant to the effects assessment presented within the EAP.	N/A
	23	**Regarding Proponent response to #20:** *The information presented by the proponent does not consider all sources of available data and is insufficient to form conclusions about the presence or absence of wildlife species in the regional project area.*	To the knowledge of AECOM, the most recent, relevant and available information regarding wildlife species, and their potential occurrence in the spatial areas considered for the EAP, was considered in the EAP. Regardless of the specific number of the many wildlife species that may be present in the Regional Project Area, the measures proposed to avoid or minimize potential Project effects to wildlife are considered sufficient to avoid significant adverse impacts to regional wildlife populations.	EAP, Section 6.4.2, Wildlife EAP, Table 6-5: Wildlife
	24	**Regarding Proponent response to #26:** General regarding moose and caribou: disagreement with conclusions of a Cumulative Environmental Effects Assessment for this Project provided to the federal Canadian Environmental Assessment Branch and included as Attachment C to the Proponent Response to TAC Comments' posted March 14, 2019 in the Public Registry. Lands Branch also disagrees with cumulative effects assessment conclusions within Environmental Impact Statements for two Manitoba government regional all-season road projects, which were referenced in the Project cumulative effects assessment.	To the knowledge of AECOM, the most recent, relevant and available information was used to develop the cumulative effects assessment presented as Attachment C Proponent Response to TAC Comments' posted March 14, 2019 in the Public Registry. As indicated, the cumulative effects assessment, for the Project did consider the conclusions of the cumulative effects assessments for two other major projects in the larger regional area, those being the all-season road from PR 304 to Berens River and the all-season road from Berens River to Poplar River. Please note that a cumulative impact assessment is not currently a content requirement that is to be included in an EAP as part of the Environment Act Licence application process in Manitoba as per the 'Information Bulletin – Environment Act Proposal Report Guidelines'.	N/A
	25	**Regarding Proponent response to #26:** The developer should assume responsibility for some role in cooperative monitoring of the moose population.	CPS will engage in discussions with MBSD regarding the need for cooperative monitoring of moose populations when, and as requested, by MBSD. CPS will comply with all provisions / conditions included within an Environment Act Licence for the Project.	N/A
	26	**Regarding Proponent response to #26:** Regarding Species at Risk not identified as a key concern during Project-related meetings with provincial regulators: *Please advise as to which project-related meetings with provincial regulators are being referenced.*	Please refer to the EAP, Appendix K titled: 'Project Communication Meetings Conducted by CPS'	N/A

TAC DEPARTMENT	ISSUE / QUESTION #	ISSUE / QUESTION RAISED*	RESPONSE	PROPOSED MITIGATION SUMMARY
	27	**Regarding Proponent response to #27:** *Given the anticipated lifespan of the project (54 years), we do not believe it is possible to conclude that, upon project closure, the project site area will be successfully rehabilitated to pre-project conditions.*	Please refer to the response provided for TAC Question #10 in the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019: i.e., *A Closure Plan is currently being developed in accordance with applicable regulations.* *As indicated in Section 8.4 of the EAP 'Closure Plan Review', the proposed Closure Plan will outline detailed mitigation plans and monitoring activities that will be implemented to rehabilitate the Project Site during the closure phase of the Project. The Closure Plan will describe the plan for annual reclamation, which will include the submission of annual reclamation reporting to MBSD. The reports will include results of the revegetation monitoring program (with photographs and maps).* *As indicated in Section 8.1 of the EAP 'Success of Revegetation Efforts', a revegetation monitoring program will be implemented to determine the effectiveness of revegetation techniques used on previously disturbed land and to determine if follow-up reseeding or replanting is required* *Annual meetings with MBSD and the CPS Community Oversight Committee to review the rehabilitation progress will be proposed within the Closure Plan.* A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment.	As per the response provided for TAC Question #10 in the responses to TAC review comments to the EAP posted in the public registry on March 14, 2019: *EAP, Section 6.4.1, Vegetation* *EAP, Table 6-5: Vegetation* *EAP, Section 8.1. Success of Revegetation Efforts* *EAP, Section 7, Closure Plan* *EAP, Section 8.4, Closure Plan Review* ***To be included within the Closure Plan:*** • *Annual reclamation plan and reporting* • *Annual meetings with MBSD and the CPS Community Oversight Committee to review the rehabilitation progress* ***To be included in the annual Revegetation Monitoring Plan reporting:*** *Progress of revegetation including photographs and maps*
	28	*Given that 10-30 meters of sand will be extracted, and it appears that excavation will occur down to bedrock (i.e. no sand layer to be left in place), please explain how impacts to topography are expected to be minor, and how the landscape will be rehabilitated to pre-project conditions in terms of soils, drainage patterns and vegetation communities conducive to supporting habitat for big game and furbearer species.*	As indicated in Section 6.2.1 'Geology/Topography' of the EAP, quarry backfilling, leveling and grading will occur upon quarrying completion in a given quarry cell in efforts to return the landscape to elevations typical to the surrounding area. Quarry rehabilitation will include revegetation using an approved native seed mixture and native plantings (Section 6.4.1 of the EAP) and will include annual monitoring of the revegetation progress (Section 8.1 'Success of Revegetation Efforts' in the EAP). Additionally, at the end of the Project life, the Project Site Area will be rehabilitated in accordance with a Manitoba Government approved Closure Plan (Section 7 of the EAP). A draft Closure Plan was submitted to Mines Branch and MBSD in April, 2019 for review and comment.	EAP, Section 6.2.1, Geology/Topography EAP, Table 6-5: Geology/Topography (Also see mitigation proposed for response to #26)
Environmental Compliance and Enforcement Branch, MBSD – April 5, 2019	29	Regarding the potential future need to expand the Seymourville wastewater treatment facilities if needed: *An expansion of the Community of Seymourville's wastewater treatment lagoon would require the submission of an Environment Act proposal, followed by an environmental assessment/licensing process. CPS should be cognizant of the timeline associated with this process and plan for alternative wastewater management options for the duration of the approvals/licensing process, in the event that a future expansion of the lagoon is necessary.*	CPS acknowledges the expected timeline associated with the EAL process required for a wastewater treatment facility upgrade. If licenced local wastewater treatment systems are required to be expanded to accommodate wastewater from the Project (i.e. from washroom, shower and cafeteria facilities, considering the sand wash process will not generate wastewater), CPS will upgrade the Seymourville wastewater treatment facility to accommodate Project water needs, including increased wastewater volume from employees housed in the community, as required (as indicated in Section 6.6.2.3 'Community Services' in the EAP. In the interim, CPS will dispose of Project-generated wastewater at an alternative licenced wastewater facility.	N/A

* Text in *italics* indicate direct quotes from submitted comments; otherwise issues / questions raised have been summarized for brevity or clarification.
N/A = Not applicable.

References:

Krumenacher, M., and Orr, I. 2017. Social Impacts of Industrial Silica Sand (Frac Sand) Mining: Land Use and Value. Policy Study: The Heartland Institute. No.140. February 2016. Accessed at: https://www.heartland.org/_template-assets/documents/publications/02-04-16_orr_and_krumenacher_on_frac_sand_mining_and_land.pdf

Orr, I., and M. Krumenacher. 2015. Environmental Impacts of Industrial Silica Sand (Frac Sand) Mining: Land Use and Value. Policy Study: The Heartland Institute. No.137. May 2015. Accessed at: https://www.heartland.org/_template-assets/documents/publications/05-04-15_orr_and_krumenacher_on_frac_sand_enviro_impacts.pdf