

Environmental Protection Operations Directorate
Prairie and Northern Region
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Edmonton, AB T1B 1K5



September 20, 2019

By email: anna.kessler@canada.ca

ECCC File No.: 4194-10-5/3087

Anna Kessler
Team Lead, Prairie and Northern Region
Impact Assessment Agency of Canada
Suite 1145, 9700 Jasper Avenue
Edmonton, AB T5J 4C3

Dear Ms. Kessler:

RE: Conformity review for the Lake Manitoba and Lake St. Martin Outlet Channels Project Environmental Impact Statement.

Environment and Climate Change Canada (ECCC) has completed the conformity review of the Environmental Impact Statement (EIS) submitted to the Impact Assessment Agency (the Agency) for the Lake Manitoba and Lake St. Martin Outlet Channels Project (the Project).

ECCC provides specialist advice based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Our responses to the request for a conformity review of this project are provided in the attached table. Please contact Laura James at 204-984-5157 or laura.james2@canada.ca if you have any questions or concerns.

We appreciate the opportunity to provide our assessment and look forward to the next steps of the process.

Sincerely,

<Original signed by>

✓ _____

Jody Small
A / Head, Environmental Assessment South

cc: Andrea McLandress, Regional Director
cc: Margaret Fairbairn, Manager Environmental Assessment
cc: Laura James, Senior Environmental Assessment Coordinator



Annex 1: Conformity Information Requirements Directed to the Proponent

ID	Reference to EIS Guidelines	Reference to EIS	Context and Rationale	Specific Conformity Information Requirement	Revised EIS or Supplementary Info
WATER QUALITY					
ECCC-WQ-01	Section 7.1.4 Groundwater and Surface Water	EIS Section 6.4.2 Existing Conditions for Groundwater	<p>Per Concordance Table 1, EIS Section 6.4.2 addresses the following EIS content requirement:</p> <p><i>groundwater quality, including lab analytical results for metals, major ions and physical parameters, including temperature, with the interpretation of results for any anomalous values and for contaminants of concern.</i></p> <p>Table 6.4-7 on page 158 provides min/max historical groundwater quality summary data. However, the required lab analytical results are not provided.</p>	Provide the lab analytical results (i.e. lab analyses reports) underlying Table 6.4-7 <i>Historical Groundwater Quality Data from October 2016 to May 2018 –of the LMOC PDA (KGS 2018).</i>	This information request can be adequately addressed through the provision of supplementary information.
ECCC-WQ-02	Section 7.1.4 Groundwater and Surface Water	EIS Section 6.4.5 Existing Conditions for Surface Water Appendix 6D Existing Conditions for Surface Water	<p>Per Concordance Table 1, EIS Section 6.4.5 and Appendix 6D address the following EIS content requirement:</p> <p><i>any seasonal water quality data (e.g. water temperature, turbidity, pH, dissolved oxygen, total suspended solids (TSS), chemistry, nutrients, metals, methyl mercury, dissolved/total organic carbon, biochemical oxygen demand (BOD)/carbonaceous biochemical oxygen demand (CBOD), pesticides, aquatic indicators, sediment quality) and analytical</i></p>	<p>Provide any available additional data to address missing water quality elements (e.g. seasonal data; missing parameters).</p> <p>Provide a discussion to identify which elements of the EIS content requirement in the previous column have been provided, and</p>	This information request can be adequately addressed through the provision of supplementary information.

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			<p><i>interpretation at several representative local stream and water body monitoring stations established throughout the project site.</i></p> <p>The surface water quality tables provided in Section 6.4.5 and Appendix 6D do not provide seasonal data and do not contain several parameters listed above (e.g., <i>metals, methyl mercury, dissolved/total organic carbon, biochemical oxygen demand (BOD)/carbonaceous biochemical oxygen demand (CBOD), pesticides, aquatic indicators, sediment quality</i>).</p> <p>Additionally, raw water quality data was not provided.</p>	<p>whether/how any missing elements would be obtained prior to project initiation.</p> <p>Provide the lab analytical results (i.e. lab analyses reports) underlying the surface water quality summary tables in Appendix 6D.</p>	
ECCC-WQ-03	Section 7.1.4 Groundwater and Surface Water	EIS Section 6.4.5 Existing Conditions for Surface Water Appendix 6D Existing Conditions for Surface Water	<p>Per Concordance Table 1, EIS Section 6.4.5 and Appendix 6D address the following EIS content requirement: <i>sediment quality and quantity</i>.</p> <p>These sections of the EIS do not contain sufficient information on sediment quality and quantity.</p>	Provide a comprehensive summary of sediment quality and quantity.	This information request can be adequately addressed through the provision of supplementary information.
ECCC-WQ-04	Section 7.1.4 Groundwater and Surface Water	EIS Section 6.4.5 Existing Conditions for Surface Water Appendix 6D	<p>Per Concordance Table 1, EIS Section 6.4.5 and Appendix 6D address the following EIS content requirement: <i>comparison of baseline datasets against applicable guidelines and standards, including the identification of exceedances and trends</i>.</p>	With respect to surface water quality and sediment quality, provide the required comparison of baseline datasets against	This information request can be adequately addressed through the provision of

ID	Reference to EIS Guidelines	Reference to EIS	Context and Rationale	Specific Conformity Information Requirement	Revised EIS or Supplementary Info
		Existing Conditions for Surface Water	With respect to surface water quality and sediment quality, the required comparisons do not appear to be provided in the sections indicated.	applicable guidelines and standards, including the identification of exceedances and trends.	supplementary information.
ECCC-WQ-05	Section 7.2.2 Changes to groundwater, surface water, and fluvial morphology	EIS Section 6.4 Groundwater and Surface Water	<p>Per Concordance Table 1, EIS Section 6.4.1 addresses the following EIS content requirement:</p> <p><i>the proponent will carry out modelling as required to present and substantiate anticipated changes to groundwater and surface water quality and quantity in all project phases and in all operational scenarios.</i></p> <p>However, the required modelling information does not appear to be provided.</p>	Provide the required information regarding modelling.	This information request can be adequately addressed through the provision of supplementary information.
ECCC-WQ-06	Section 7.2.2 Changes to groundwater, surface water, and fluvial morphology	EIS Section 6.4.7 Assessment of Residual Environmental Effects on Surface Water	<p>Per Concordance Table 1, EIS Section 6.4.7 addresses the following EIS content requirements:</p> <p><i>- changes to total suspended solids (TSS), total dissolved solids, turbidity, oxygen level, water temperature, pH, dissolved oxygen, water quality including metals, methyl mercury, nutrients, algae blooms, dissolved/total organic carbon, biochemical oxygen demand (BOD)/carbonaceous</i></p>	Provide a quantitative assessment of the EIS content requirements (i.e., changes) described in the previous column.	This information request can be adequately addressed through the provision of supplementary information.

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			<p><i>biochemical oxygen demand (CBOD), pesticides, aquatic indicators, sediment quality</i></p> <p><i>-temperature changes in surface water as a result of water diversion and retention</i></p> <p><i>-changes to water quality and quantity and sediment quality and quantity during all phases of the Project associated with project-related: drainage areas, flow paths, and seepage of groundwater into surface water; erosion and sedimentation; excavation, blasting, and stock-piling of materials and wasterock; wastes, wastewater, fuels, chemicals, hazardous materials, contaminated soils, including run off from agricultural lands; spills and releases; mercury methylation; metal leaching and acid rock drainage</i></p> <p>Section 6.4.7.7, which provides a discussion regarding changes in regional and local surface water quality, does not incorporate any quantitative assessment of these changes.</p>		

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ENVIRONMENTAL EMERGENCIES					
ECCC-E2-01	Section 7.6 Other effects to consider; 7.6.1 Effects of potential accidents or malfunctions; page 40	EIS Chapter 14.0 Accidents and Malfunctions	<p>Per Concordance Table 1, EIS Section 14.2 to 14.6 addresses the following EIS content requirements:</p> <p><i>Taking into account the lifespan of different project components, the proponent will identify the probability of potential accidents and malfunctions related to the project, including an explanation of how those events were identified, potential consequences (including the environmental effects as defined in section 5 of CEAA 2012 and potential impacts to Aboriginal or treaty rights), the plausible worst case scenarios and the effects of these scenarios</i></p> <p>The Proponent has not identified the plausible worst-case scenarios for each of the four categories of accident and malfunctions identified (i.e. outlet channel breach/control structure failure, spills of hazardous materials, fire, and collisions), other than identifying a worst-case scenario for a concentrated herbicide spill into a watercourse.</p> <p>Without this information, ECCC cannot advise as to the effectiveness of the proponent's proposed response and</p>	Identify and detail a plausible worst-case accident and malfunction scenario for each identified accident and malfunction category (i.e. for outlet channel breach/control structure failure, spills of hazardous materials, fire, and collisions). Determine the potential consequences (including the environmental effects to fish and fish habitat, aquatic species, and migratory birds as defined in Section 5 of CEAA 2012). Identify and detail the potential impacts to Aboriginal or Treaty rights. Present preliminary response measures.	This information request can be adequately addressed through the provision of supplementary information.

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			mitigation measures, and thus on any resulting residual environmental effects.		
ECCC-E2-02	Section 7.6 Other effects to consider; 7.6.1 Effects of potential accidents or malfunctions; page 40	EIS Chapter 14.0 Accidents and Malfunctions	<p>Per Concordance Table 1, EIS Section 14.2 to 14.6 addresses the following EIS content requirements</p> <p><i>Identification of the magnitude of an accident and/or malfunction, including the quantity, mechanism, rate, form, and characteristics of the contaminants and other materials likely to be released into the environment during the accident and malfunction events and would potentially result in an adverse environmental effect as defined in section 5 of CEAA 2012. The assessment should consider all seasons of the year and take into account site-specific sensitivities and potential pathways of effects</i></p> <p>The EIS does not include a characterization of the magnitude of an accident and/or malfunction, including the quantity, mechanism, rate, form and characteristics of the contaminants and other materials that may be released into the environment during an accident or malfunction event.</p>	For each worst-case accident or malfunction event, identify and detail the magnitude, including the quantity, mechanism, rate, form and characteristics of the contaminants and other materials likely to be released into the environment.	This information request can be adequately addressed through the provision of supplementary information.
Species at Risk/Wildlife					
ECCC-CWS-01	7.1.8 Migratory birds and their habitat	EIS Chapter 8 Sections 8.3.2.1,	The EIS Guidelines require the following information:	Provide the baseline studies referenced in the EIS.	This information request can be adequately

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		8.3.3 and Appendix 8D (p 8d.1)	<p><i>-birds and their habitat that are found or are likely to be found in the study area. This description may be based on existing sources, but supporting evidence is required to demonstrate that the data used are representative of the avifauna and habitats found in the study area. The existing data must be supplemented by surveys if required;</i></p> <p>Appendix D, Chapter 8 of the EIS (Volume 3) (page 8D.1) indicates that the following surveys were conducted to describe existing conditions and support the assessment of potential effects of potential effects on wildlife as a result of the project: Aerial Stick Nest Survey, Breeding Bird Point Count Survey, Yellow Rail Survey and a Piping Plover Survey. However, copies of these surveys have not been provided as appendices to the EIS.</p>		addressed through the provision of supplementary information.
	7.1.9 Species at Risk	EIS Chapter 8 Sections 8.3.2.1, 8.3.4, and Appendix 8D (p 8d.1)	<p>The EIS Guidelines require the following information:</p> <p><i>-a list of all potential or known federally listed species at risk that may be affected by the project (fauna and flora), using existing data and literature as well as surveys to provide current field data;</i></p> <p>Appendix D, Chapter 8 of the EIS (Volume 3) (page 8D.1) indicates that the following</p>	Provide the baseline studies referenced in the EIS.	This information request can be adequately addressed through the provision of supplementary information.

ID	Reference to EIS Guidelines	Reference to EIS	Context and Rationale	Specific Conformity Information Requirement	Revised EIS or Supplementary Info
			<p>surveys were conducted to describe existing conditions and support the assessment of potential effects of potential effects on wildlife as a result of the project: Aerial Stick Nest Survey, Breeding Bird Point Count Survey, Aerial Hibernacula Survey, Yellow Rail Survey and a Piping Plover Survey. However, copies of these surveys have not been provided as appendices to the EIS.</p>		