

## **26.0 EFFECTS OF CHANGES TO THE ENVIRONMENT**

### **26.1 ALTERNATIVE MEANS**

This section summarizes the effects of changes to the environment that may result from the Project. The effects of changes to the environment are updated to describe the currently proposed Project (i.e., marine terminal re-design, dredging limited to the MOF and worker accommodations camp removed from the EA). Conclusions in this section are summarized from the detailed analyses presented in the relevant VC sections of the EIS and are categorized as follows:

- Effects of Changes to the Environment on Aboriginal Peoples
- Effects of Changes to the Environment that are Directly Linked or Necessarily Incidental to Federal Decisions.

### **26.2 EFFECTS OF CHANGES TO THE ENVIRONMENT ON ABORIGINAL PEOPLES**

Table 26-1 summarizes the effects of changes the Project may cause to the environment on Aboriginal peoples, including:

- Health and Socio-economic conditions
- Physical and cultural heritage
- Any structure, site or thing that is of historical, archaeological, paleontological or architectural significance
- Current use of lands and resources for traditional purposes.

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**Table 26-1 Summary of Effects of Changes to the Environment on Aboriginal Peoples**

<b>A change that may be caused to the environment during construction, operation and decommissioning:</b>  <small>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the change is described as it is considered minor or negligible.</small>	<b>Health and Socio-Economic Conditions</b>	<b>Physical and Cultural Heritage</b>	<b>Any Structure, Site or Thing That is of Historical, Archaeological, Paleontological or Architectural Significance</b>	<b>Current Use of Lands and Resources for Traditional Purposes</b>
Change in fish habitat availability Change in food and nutrient content Change in fish behaviour Change in fish mortality risk Change in marine sediment or water quality (Section 12, Freshwater Aquatic Resources; Section 13, Marine Resources)	<ul style="list-style-type: none"> <li>The effect of a change in fish behaviour and fish mortality risk has the potential to affect Aboriginal health due to a change in diet due to potentially reduced access to fish in the vicinity of the Project (Section 19, Human Health and Ecological Risk).</li> <li>Although a change in marine sediment and water quality is anticipated to be minor due to dredging activities, there may be an effect on Aboriginal health due to the perception of contamination of country foods leading to a change in diet by avoiding fish species known to frequent Flora and Agnew Banks, even though contaminant concentrations are predicted to be a low risk (Section 19, Human Health and Ecological Risk).</li> <li>Increased fish mortality risk has the potential to affect socio-economic conditions of Aboriginal peoples due to restrictions and limited access to preferred fish species (Section 21, Current Use of Lands and Resources; Appendix K.1: Response to Aboriginal Issues Information Request #1).</li> </ul>	The effect of a change in fish behaviour and fish mortality risk has the potential to affect cultural heritage by reducing access to species used in cultural activities (Section 27, Aboriginal Rights and Related Interests)	There are no known structures, sites or things of historical, paleontological or architectural significance in the Project footprint. If any features of archaeological or historical significance to Aboriginal peoples are uncovered during construction of the Project or habitat offset, work affecting archaeological sites will cease until the site can be properly assessed by a professional archaeologist. A Chance-Find Protocol (as per requirements under the <i>Heritage Conservation Act</i> ) will be used to properly address any archaeological findings.  (Section 20, Archaeological and Heritage Resources; Appendix K.2: Aboriginal Issues Information Request #2)	The effect of a change in fish behaviour and fish mortality may affect Aboriginal traditional harvesting activities in the vicinity of the Project (e.g., Flora Bank and Agnew Bank). (Section 21, Current Use of Lands and Resources)
Change in migratory bird habitat availability Change in migratory bird mortality Change in migratory bird movement patterns (Section 11, Terrestrial Wildlife and Marine Birds)	<ul style="list-style-type: none"> <li>The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect Aboriginal health due to a change in diet (i.e., country foods) due to potentially reduced access to migratory birds in the vicinity of the Project (Section 19, Human Health and Ecological Risk).</li> <li>No effect on socio-economic conditions is anticipated.</li> </ul>	The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect cultural heritage by reducing access to species used in cultural activities (Section 27, Aboriginal Rights and Related Interests)		The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect traditional harvesting activities in the vicinity of the Project (Section 21, Current Use of Lands and Resources)
Change in criteria air contaminant concentrations (Section 6, Air Quality)	<ul style="list-style-type: none"> <li>The effect of a change in air quality on Aboriginal health due to air emissions are anticipated to be minor as no criteria air contaminants are anticipated to exceed applicable guidelines (Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in air quality may change Aboriginal diet and nutrition by changing perception on the safety of country foods and medicinal plants in the vicinity of the Project (Section 18, Community Health and Well-Being; Section 19, Human Health and Ecological Risk).</li> </ul>	No effect on physical and cultural heritage.		The effect of a change in air quality may affect Aboriginal harvesting activities in the vicinity of the Project (e.g., Flora Bank and Agnew Bank). (Section 21)
Change in acoustic environment (Section 8, Acoustic Environment)	<ul style="list-style-type: none"> <li>The effect of a change in the acoustic environment on Aboriginal health due to noise emissions are expected to be minor as the levels are anticipated to be within the normal noise range. Limited noise emissions are expected during operations and decommissioning (Section 19, Human Health and Ecological Risk).</li> <li>No effect of a change in the acoustic environment on the Aboriginal socio-economic environment is anticipated (Section 15, Navigation and Marine Resource Use).</li> </ul>	The effect of a change in the acoustic environment has the potential to affect cultural heritage by reducing or diminishing the experience of cultural activities (Section 27, Aboriginal Rights and Related Interests)		The effect of a change in the acoustic environment may affect Aboriginal harvesting activities in the vicinity of the Project (e.g., Flora Bank and Agnew Bank) (Section 21, Current Use of Lands and Resources).

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<p><b>A change that may be caused to the environment during construction, operation and decommissioning:</b></p> <p><i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the change is described as it is considered minor or negligible.</i></p>	<p><b>Health and Socio-Economic Conditions</b></p>	<p><b>Physical and Cultural Heritage</b></p>	<p><b>Any Structure, Site or Thing That is of Historical, Archaeological, Paleontological or Architectural Significance</b></p>	<p><b>Current Use of Lands and Resources for Traditional Purposes</b></p>
<p>Change in ambient light (Section 9, Ambient Light)</p>	<ul style="list-style-type: none"> <li>The effect of a change in ambient light may affect visual quality due to nighttime lighting requirements for the flare towers, marine terminal, trestle, suspension bridge and bridge to Port Edward. This is not expected to affect Aboriginal health and well-being. (Section 17, Visual Quality).</li> <li>The effect of a change in ambient light on visual quality may affect Aboriginal socio-economic conditions (Section 14; Appendix K.1: Response to Aboriginal Issues Information Request #1)</li> </ul>	<p>The effect of a change in ambient light has the potential to affect cultural heritage by reducing or diminishing the experience of cultural activities (Section 27, Aboriginal Rights and Related Interests)</p>		<p>The effect of a change in ambient light may affect visual quality due to nighttime lighting requirements for the flare towers, marine terminal, trestle, suspension bridge and bridge to Port Edward and may affect current use of lands and resources for traditional purposes (i.e., practice of traditional activities) due to visual disturbance (Section 17, Navigation and Marine Resource Use; Section 21, Current Use of Lands and Resources).</p>
<p>Change in abundance of plant species of management concern Change in abundance or condition of ecological communities of management concern Change in wetland functions (Section 10, Vegetation and Wetland Resources)</p>	<ul style="list-style-type: none"> <li>The effect of a change on vegetation resources may change Aboriginal diet and nutrition by reducing access to and availability of country foods and medicinal plants in the Project footprint and habitat offset site (Section 18, Community Health and Well-Being; Section 19, Human Health and Ecological Risk).</li> </ul>	<p>The effect of a change in vegetation resources during site clearing on Lelu Island has the potential to affect cultural heritage by removing CMTs and reducing or diminishing the experience of cultural activities associated with CMTs. (Section 20).</p> <p>Potential exists for effects on culturally important natural landforms and visual quality due to vegetation clearing. (Section 20, Archaeological and Heritage Resources; Appendix K.2: Aboriginal Issues Information Request #2)</p>		<p>The effect of a change on vegetation resources may reduce current use of lands and resources for traditional purposes by reducing access to and availability of country foods and medicinal plants in the Project footprint. (Section 21, Current Use of Lands and Resources).</p>
<p>Change in wildlife habitat availability Change in wildlife mortality Change in wildlife movement patterns (Section 11, Terrestrial Wildlife and Marine Bird Resources)</p>	<ul style="list-style-type: none"> <li>The effect of a change on wildlife may change Aboriginal diet and nutrition by reducing access to and availability of country foods in the Project footprint (Section 18, Community Health and Well-Being; Section 19, Human Health and Ecological Risk).</li> </ul>	<p>The effect of a change in wildlife resources has the potential to affect cultural heritage by reducing or diminishing the experience of cultural activities and access to culturally important species. (Section 27, Aboriginal Rights and Related Interests)</p>		<p>The effect of a change on wildlife and marine bird resources may reduce current use of lands and resources for traditional purposes by reducing access to and availability of country foods in the Project footprint (Section 18, Community Health and Well-Being; Section 19; Section 21, Current Use of Lands and Resources).</p>

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### **26.3 EFFECTS OF CHANGES TO THE ENVIRONMENT THAT ARE DIRECTLY LINKED OR NECESSARILY INCIDENTAL TO FEDERAL DECISIONS**

**Error! Reference source not found.** Table 26-2 summarizes the effects of changes to the environment, that are directly linked or necessarily incidental to federal decisions on the Project which are required under the *Fisheries Act*, the *Canadian Environmental Protection Act*, *Navigation Protection Act* and *Canada Marine Act*. These include effects on:

- Health and socio-economic conditions
- Physical and cultural heritage
- Any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.

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Table 26-2 Summary of Effects of Changes to the Environment Directly Linked or Necessarily Incidental to Federal Decisions

Federal authority's exercise of power that would permit the Project, or part of the Project, to proceed	A change, that may be caused to the environment and that is directly linked or necessarily incidental to the federal authority's exercise of power. <i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the change is described as it is considered minor or negligible.</i>	An effect of any change to the environment on:		
		Health and Socio-Economic Conditions <i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the effect of a change is described as it is considered minor or negligible.</i>	Physical and Cultural Heritage	Any Structure, Site or Thing that is of Historical, Archaeological, Paleontological or Architectural Significance
Permit for disposal at sea under section 127(1) of the <i>Canadian Environmental Protection Act</i>	The Project has potential to result in the following environmental effects due to disposal at sea:  Change in migratory bird habitat availability Change in migratory bird mortality Change in migratory bird movement patterns (Section 11, Terrestrial Wildlife and Marine Birds)  Change in air quality from emissions associated with disposal of dredge materials (Section 6, Air Quality).  Change in the acoustic environment during disposal  Change in water and sediment quality (Section 13, Marine Resources).	<ul style="list-style-type: none"> <li>No effect on human health or socio-economic conditions is anticipated.</li> <li>The effect of a change in air quality on human health due to air emissions is minimal as the disposal site is remote and other transiting vessels are unlikely to visit the Brown Passage site during disposal (Section 19, Human Health and Ecological Risk).</li> <li>No effect on socio-economic conditions is anticipated.</li> <li>The effect of a change in the acoustic environment on human health due to operation of the disposal vessel and barge is limited as the disposal site is remote and other transiting vessels are unlikely to be exposed to noise emissions at the Brown Passage site during disposal.</li> <li>No effect on socio-economic conditions is anticipated.</li> <li>No effects on human health are expected as contaminant concentrations in the sediment are below all applicable thresholds for safe ocean disposal. (Section 19, Human Health and Ecological Risk).</li> </ul>	No effects are anticipated as there are no known physical and cultural heritage sites of relevance to the public in the vicinity of Brown Passage (i.e., disposal at sea site). (Section 20, Archaeological and Heritage Resources)	No effects are anticipated as there are no known structures, sites or things of historical, paleontological or architectural significance in the vicinity of Brown Passage (i.e., disposal at sea site). (Section 20, Archaeological and Heritage Resources)
Authorization to carry out a proposed work, undertaking or activity causing serious harm to fish under section 35(2)(b) of the <i>Fisheries Act</i>	The Project has potential to result in the following environmental effects due to the construction of the marine terminal, MOF, and access bridge to Port Edward:  Change in fish habitat availability, including marine plants Change in food and nutrient content Change in fish behaviour Change in fish mortality risk Change in marine sediment or water quality (Section 12, Freshwater Aquatic Resources; Section 13, Marine Resources)  Change in migratory bird habitat availability Change in migratory bird mortality Change in migratory bird movement patterns (Section 11, Terrestrial Wildlife and Marine Birds)  Change in air quality from emissions associated with construction and dredging activities (Section 6, Air Quality).  Change in the acoustic environment during construction and dredging activities (Section 8, Acoustic Environment).	<ul style="list-style-type: none"> <li>The effect of a change in fish behaviour and fish mortality risk has the potential to affect human health due to a change in diet due to potentially reduced access to fish in the vicinity of the Project (Section 19, Human Health and Ecological Risk).</li> <li>Although a change in marine sediment and water quality is anticipated to be minor due to dredging activities, there may be an effect on human health due to the perception of contamination of country foods leading to a change in diet by avoiding fish species known to frequent Flora and Agnew Banks, even though contaminant concentrations are predicted to be a low risk (Section 19, Human Health and Ecological Risk).</li> <li>Increased fish mortality risk has the potential to affect socio-economic conditions due to restrictions and limited access to preferred fish species (Section 14, Economic Environment).</li> <li>The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect human health due to a change in diet (i.e., country foods) due to potentially reduced access to migratory birds in the vicinity of the Project (Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in air quality on human health due to air emissions is minor due to the short duration of construction (approximately 3 years) and dredging activities (6 months) and the low level of emissions from equipment (Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in the acoustic environment on human health due to construction equipment noise is minor due to equipment muffling and short-term construction and dredging activities (Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in the acoustic environment has limited potential to affect tourism revenue as recreationists will likely avoid the marine terminal, trestle, suspension bridge, bridge to Port Edward and dredging of the MOF during construction activities (Section 14, Economic Environment; Section 15, Navigation and Marine Resource Use).</li> </ul>	No effects are anticipated as there are no known physical and cultural heritage sites of relevance to the public in the vicinity of the marine terminal, MOF, or access bridge to Port Edward (Section 20, Archaeological and Heritage Resources).  If any features of archaeological significance to the public are uncovered during construction, a Chance-Find Protocol (as per requirements under the Heritage Conservation Act) will be used to properly address any archaeological findings.(Section 20, Archaeological and Heritage Resources)	No effects are anticipated as there are no known structures, sites or things of historical, paleontological or architectural significance of relevance to the public in the vicinity of the marine terminal, MOF, or access bridge to Port Edward (Section 20, Archaeological and Heritage Resources).  If any features of archaeological significance to the public are uncovered during construction, a Chance-Find Protocol (as per requirements under the Heritage Conservation Act) will be used to properly address any archaeological findings.(Section 20, Archaeological and Heritage Resources)

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Federal authority's exercise of power that would permit the Project, or part of the Project, to proceed	A change, that may be caused to the environment and that is directly linked or necessarily incidental to the federal authority's exercise of power. <i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the change is described as it is considered minor or negligible.</i>	An effect of any change to the environment on:		
		Health and Socio-Economic Conditions <i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the effect of a change is described as it is considered minor or negligible.</i>	Physical and Cultural Heritage	Any Structure, Site or Thing that is of Historical, Archaeological, Paleontological or Architectural Significance
Change in ambient light due to construction and dredging activities and lighting requirements for the marine terminal, trestle, suspension bridge and bridge to Port Edward (Section 9, Ambient Light).	<ul style="list-style-type: none"> <li>The effect of a change in ambient light on human health may reduce health and well-being due to visual disturbance and effect on visual quality. Effects of change on visual quality are anticipated to be minor and not significant (Section 18, Community Health and Well-Being; Section 19).</li> <li>The effect of a change in ambient light on visual quality may affect socio-economic conditions (Section 14, Economic Environment).</li> </ul>			
Change in vegetation resources may result from removal of riparian and foreshore vegetation during construction of the bridge to Port Edward (Section 10, Vegetation and Wetland Resources).	<ul style="list-style-type: none"> <li>The effect of a change in vegetation resources on human health due to vegetation removal may change diet and nutrition by reducing access to and availability of country foods (Section 18, Community Health and Well-Being; Section 19, Human Health and Ecological Risk).</li> </ul>			
Change in wildlife resources (other than migratory birds) due to change in wildlife movement patterns, habitat availability and wildlife mortality may result from removal of vegetation during construction of the bridge to Port Edward (Section 11, Terrestrial Wildlife and Marine Birds).	<ul style="list-style-type: none"> <li>The effect of a change in wildlife resources (other than migratory birds) on human health may change diet and nutrition by changing abundance of wildlife in the vicinity of the Project footprint (Section 18, Community Health and Well-Being).</li> <li>A change in wildlife resources may have a limited and temporary negative effect on tourism wildlife viewing activities in the vicinity of the Project footprint (Section 14, Economic Environment).</li> </ul>			
The Project has potential to result in the following environmental effects due to the fish habitat offset:				
Change in fish habitat availability Change in food and nutrient content Change in fish behaviour Change in fish mortality risk Change in marine sediment or water quality (Section 12, Freshwater Aquatic Resources; Section 13, Marine Resources)	<ul style="list-style-type: none"> <li>The effect of a change in fish behaviour and fish mortality risk has the potential to affect human health due to a change in diet due to potentially reduced access to fish during construction of the habitat offset (Section 19, Human Health and Ecological Risk).</li> <li>Although a change in marine sediment and water quality is anticipated to be minor in the vicinity of the habitat offset, there may be an effect on human health due to the perception of contamination of country foods leading to a change in diet by avoiding fish species known to frequent Flora and Agnew Banks, even though contaminant concentrations are predicted to be a low risk (Section 19, Human Health and Ecological Risk).</li> <li>Increased fish mortality risk has the potential to affect socio-economic conditions due to restrictions and limited access to preferred fish species (Section 14, Economic Environment).</li> </ul>	No effects are anticipated as there are no known physical and cultural heritage sites of relevance to the public in the vicinity of the habitat offset. (Section 20, Archaeological and Heritage Resources)	No effects are anticipated as there are no known structures, sites or things of historical, paleontological or architectural significance of relevance to the public in the vicinity of the habitat offset. (Section 20, Archaeological and Heritage Resources)	
Change in migratory bird habitat availability Change in migratory bird mortality Change in migratory bird movement patterns (Section 11, Terrestrial Wildlife and Marine Birds)	<ul style="list-style-type: none"> <li>The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect human health due to a change in diet (i.e., country foods) due to temporary reduced access to migratory birds in the vicinity of the habitat offset during construction (Section 19, Human Health and Ecological Risk).</li> <li>No effects of changes to migratory birds on socio-economic conditions are anticipated from habitat offset activities.</li> </ul>			
Change in air quality from emissions associated with transport of construction materials and construction activities at the habitat offset site (Section 6, Air Quality).	<ul style="list-style-type: none"> <li>The effect of a change in air quality on human health due to air emissions is limited due to the localized area of the habitat offset and the low level of emissions from construction activities.</li> <li>No effects of changes to air quality on socio-economic conditions are anticipated from habitat offset activities.</li> </ul>			

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		Health and Socio-Economic Conditions <i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the effect of a change is described as it is considered minor or negligible.</i>	Physical and Cultural Heritage	Any Structure, Site or Thing that is of Historical, Archaeological, Paleontological or Architectural Significance
	Change in the acoustic environment during habitat offset activities.	<ul style="list-style-type: none"> <li>The effect of a change in the acoustic environment on human health due to construction equipment noise is minor due to the localized area of the habitat offset, equipment muffling and short-term construction activities.</li> <li>The effect of a change in the acoustic environment has limited potential to affect tourism revenue as recreationists will avoid the vicinity of the habitat offset site during construction activities.</li> </ul>		
Approval under section 5(1) of the <i>Navigation Protection Act</i> for works in and about navigable water. Approval may be required for construction of the marine terminal, trestle, suspension bridge, bridge to Port Edward and dredging of the MOF.	The Project has potential to result in the following environmental effects due to construction of the marine terminal, trestle, suspension bridge and bridge to Port Edward and dredging of the MOF:			
	Change in fish habitat availability Change in food and nutrient content Change in fish behaviour Change in fish mortality risk Change in marine sediment or water quality (Section 12, Freshwater Aquatic Resources; Section 13, Marine Resources)	<ul style="list-style-type: none"> <li>The effect of a change in fish behaviour and fish mortality risk has the potential to affect human health due to a change in diet due to potentially reduced access to fish in the vicinity of the marine terminal, trestle, suspension bridge, bridge to Port Edward and the MOF dredging site (Section 19, Human Health and Ecological Risk).</li> <li>Although a change in marine sediment and water quality is anticipated to be minor due to dredging activities, there may be an effect on human health due to the perception of contamination of country foods leading to a change in diet by avoiding fish species known to frequent Flora and Agnew Banks, even though contaminant concentrations are predicted to be a low risk (Section 19, Human Health and Ecological Risk).</li> <li>Increased fish mortality risk has the potential to affect socio-economic conditions due to restrictions and limited access to preferred fish species (Section 14, Economic Environment; Section 15, Navigation and Marine Resource Use).</li> </ul>	No effects are anticipated as there are no known physical and cultural heritage sites of relevance to the public in the vicinity of the marine terminal, MOF, and access bridge to Port Edward (Section 20, Archaeological and Heritage Resources). If any features of archaeological significance to the public are uncovered during construction, a Chance-Find Protocol (as per requirements under the Heritage Conservation Act) will be used to properly address any archaeological findings.(Section 20, Archaeological and Heritage Resources)	No effects are anticipated as there are no known structures, sites or things of historical, paleontological or architectural significance of relevance to the public in the vicinity of the marine terminal, MOF, and access bridge to Port Edward (Section 20, Archaeological and Heritage Resources). If any features of archaeological significance to the public are uncovered during construction, a Chance-Find Protocol (as per requirements under the Heritage Conservation Act) will be used to properly address any archaeological findings.(Section 20, Archaeological and Heritage Resources)
	Change in migratory bird habitat availability Change in migratory bird mortality Change in migratory bird movement patterns (Section 11, Terrestrial Wildlife and Marine Birds)	<ul style="list-style-type: none"> <li>The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect human health due to a change in diet (i.e., country foods) due to temporary reduced access to migratory birds in the vicinity of the marine terminal, trestle, suspension bridge, bridge to Port Edward and the MOF dredging site (Section 19, Human Health and Ecological Risk).</li> <li>No effects of changes to migratory birds on socio-economic conditions are anticipated.</li> </ul>		
	Change in air quality from equipment emissions associated with construction and dredging activities (Section 6, Air Quality).	<ul style="list-style-type: none"> <li>The effect of a change in air quality on human health due to air emissions is minor due to the short duration of construction (approximately 3 years) and dredging activities (6 months) and the low level of emissions from equipment (Section 19, Human Health and Ecological Risk).</li> </ul>		
	Change in the acoustic environment due to equipment noise generated during construction and dredging activities (Section 8, Acoustic Environment).	<ul style="list-style-type: none"> <li>The effect of a change in the acoustic environment on human health due to construction equipment noise is minor due to equipment muffling and short-term construction and dredging activities (Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in the acoustic environment has potential to affect tourism revenue as recreationists will likely avoid the vicinity of the construction activities (Section 15, Navigation and Marine Resource Use).</li> </ul>		
	Change in ambient light due to lighting requirements for the flare towers, marine terminal, trestle, suspension bridge and bridge to Port Edward (Section 9, Ambient Light).	<ul style="list-style-type: none"> <li>The effect of a change in ambient light may affect visual quality and may reduce health and well-being due to visual disturbance. Effects of change on visual quality are anticipated to be minor and not significant (Section 17, Visual Quality).</li> <li>The effect of a change in visual quality may affect socio-economic conditions. These effects are expected to be minor. (Section 14, Economic Environment).</li> </ul>		

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		Health and Socio-Economic Conditions <i>NOTE: Section numbers indicate where information can be found in the Application, or Application Addendum. If no Section number is provided, then this Table is the only place where the effect of a change is described as it is considered minor or negligible.</i>	Physical and Cultural Heritage	Any Structure, Site or Thing that is of Historical, Archaeological, Paleontological or Architectural Significance
Lease under section 8 (Letters Patent) of the <i>Canada Marine Act</i>	The Project has potential to result in the following environmental effects due to works on federal lands:			
	Change in fish habitat availability Change in food and nutrient content Change in fish behaviour Change in fish mortality risk Change in marine sediment or water quality (Section 12, Freshwater Aquatic Resources; Section 13, Marine Resources)	<ul style="list-style-type: none"> <li>The effect of a change in fish behaviour and fish mortality risk has the potential to affect human health due to a change in diet due to potentially reduced access to fish in the vicinity of the Project (Section 19, Human Health and Ecological Risk).</li> <li>Although a change in marine sediment and water quality is anticipated to be minor due to dredging activities, there may be an effect on human health due to the perception of contamination of country foods leading to a change in diet by avoiding fish species known to frequent Flora and Agnew Banks, even though contaminant concentrations are predicted to be a low risk (Section 19, Human Health and Ecological Risk).</li> <li>Increased fish mortality risk has the potential to affect socio-economic conditions due to restrictions and limited access to preferred fish species (Section 14, Economic Environment).</li> </ul>	No effects are anticipated as there are no known physical and cultural heritage sites of relevance to the public in the vicinity of the Project footprint. Potential effects to physical or cultural heritage sites on Lelu Island or the foreshore will be addressed through a chance find procedure. (Section 20, Archaeological and Heritage Resources).	No effects are anticipated as there are no known structures, sites or things of historical, paleontological or architectural significance of relevance to the public in the vicinity of the Project footprint.  If any features of archaeological significance to the public are uncovered during construction, a Chance-Find Protocol (as per requirements under the Heritage Conservation Act) will be used to properly address any archaeological findings. (Section 20, Archaeological and Heritage Resources)
	Change in migratory bird habitat availability Change in migratory bird mortality Change in migratory bird movement patterns (Section 11, Terrestrial Wildlife and Marine Birds)	<ul style="list-style-type: none"> <li>The effect of a change in migratory bird movement patterns and migratory bird mortality has the potential to affect human health due to a change in diet (i.e., country foods) due to temporary reduced access to migratory birds in the vicinity of the Project footprint (Section 19, Human Health and Ecological Risk).</li> <li>No effects of changes to migratory birds on socio-economic conditions are anticipated.</li> </ul>	If any features of physical and cultural heritage sites are uncovered during construction, a Chance-Find Protocol (as per requirements under the Heritage Conservation Act) will be used to properly address any archaeological findings. (Section 20, Archaeological and Heritage Resources)	
	Change in criteria air contaminant concentrations (Section 6, Air Quality)	<ul style="list-style-type: none"> <li>The effect of a change in air quality on human health due to air emissions is minor due to the short duration of construction (approximately 3 years) and dredging activities (6 months) and the low level of emissions from equipment (Section 19, Human Health and Ecological Risk).</li> </ul>		
	Change in acoustic environment (Section 8, Acoustic Environment)	<ul style="list-style-type: none"> <li>The effect of a change in the acoustic environment on human health due to construction equipment noise is minor due to equipment muffling and short-term construction and dredging activities (Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in the acoustic environment has potential to affect tourism revenue as recreationists will avoid the vicinity of the Project (Section 15, Navigation and Marine Resource Use).</li> </ul>		
	Change in ambient light (Section 9, Ambient Light)	<ul style="list-style-type: none"> <li>The effect of a change in ambient light on human health may reduce health and well-being due to visual disturbance and effect on visual quality. Effects of change on visual quality are anticipated to be minor and not significant (Section 18, Community Health and Well-Being; Section 19, Human Health and Ecological Risk).</li> <li>The effect of a change in ambient light due to construction and operation of the marine terminal, trestle, suspension bridge and bridge to Port Edward may reduce socio-economic conditions due to visual disturbance that would affect tourism revenues due to reduced recreation activities in the vicinity of marine infrastructure. (Section 14, Economic Environment).</li> </ul>		
	Change in abundance of plant species of management concern, abundance or condition of ecological communities of management concern, wetland functions (Section 10, Vegetation and Wetland Resources)	<ul style="list-style-type: none"> <li>The effect of a change on vegetation resources may change diet and nutrition by reducing access to and availability of country foods in the vicinity of the Project. (Section 18, Community Health and Well-Being).</li> </ul>		
	Change in wildlife habitat availability, wildlife mortality, wildlife movement patterns (Section 11, Terrestrial Wildlife and Marine Bird Resources)	<ul style="list-style-type: none"> <li>The effect of a change on wildlife resources may change diet and nutrition by reducing access to and availability of country foods in the vicinity of the Project. (Section 18, Community Health and Well-Being).</li> </ul>		