7.6 Summary of Assessment of Potential Social Effects

7.6.1 Infrastructure and Services

7.6.1.1 Summary of Project Residual Social Effects

The Project effects on infrastructure and services are effects on community infrastructure and services, effects on traffic and pressure on transportation services, and changes to housing availability. Table 7.6-1 summarizes Project residual effects on infrastructure and services.

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects
Facility Activities	and Works		
Infrastructure and services (C, O, D)	Effects on community infrastructure and services	 Construct and operate workforce accommodation centre(s) for non-resident workforce during the pre-construction and construction phase to manage effects of temporary workforce on communities (Mitigation 6.2-5). 	Not significant. With the implementation of mitigation measures, as well as communication of Project requirements by LNG Canada to
 Management Plan to manage potential s effects of the Project and optimize potenti benefits (Mitigation 6.2-8). Require all Project workers to undertake orientation, including cross-cultural aware help build awareness and respect of local importance, including local facilities, recropportunities, and other community considerations, with expectation of reduct adverse interactions with the community (Mitigation 7.2-3). Undertake ongoing and meaningful commensation actual changes resulting from the Provide local and regional governments information on anticipated changes in response to their planning for incremental demands for their planning for incremental demands for the provide local and response to their planning for incremental demands for their planning for incremental demands for the planning for the planning for i	Management Plan to manage potential social effects of the Project and optimize potential	the municipal authorities and local agencies responsible for infrastructure and services, adverse residual effects are assessed as not significant	
		orientation, including cross-cultural awareness, to help build awareness and respect of local issues of importance, including local facilities, recreational opportunities, and other community considerations, with expectation of reducing adverse interactions with the community	assessed as not significant.
	engagement, and log, monitor, and work to address community complaints to reduce community concerns associated with perceived and actual changes resulting from the Project		
		information on anticipated changes in resident populations attributable to the Project to facilitate their planning for incremental demands for solid waste management, potable water supply, sewage system needs, and recreation facilities	
		 Provide onsite first aid equipment, supplies, and trained first aid personnel to deal with minor injuries. In the case of major injuries, patients will be evacuated via land or air ambulance to medical facilities (Mitigation 7.2-7). 	

 Table 7.6-1:
 Summary of Project Residual Effects on Infrastructure and Services

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects
		 Include recreational venues, and entertainment and communications amenities in the construction workforce accommodation centre(s) to reduce Project-related demands on community infrastructure and services (Mitigation 7.2-10). Work with local parks and recreation planning entities to provide input into the development and improvement of outdoor recreation areas (including parks and trails) (Mitigation 7.2-13). 	
Infrastructure and services (C, O)	Effects on traffic and pressure on transportation infrastructure	 Develop and implement a Traffic Management Plan (Mitigation 5.4-6). Provide relevant information on Project transportation planning to MOTI and District of Kitimat to facilitate their planning for road improvements and traffic movement (Mitigation 7.2-15). Monitor all travel-related incidents involving LNG Canada workers, and review these data regularly to identify how travel can be improved to reduce risks to safety and further incidents (Mitigation 7.2-16). Worker rotations and charter flights, where practical, will be scheduled to alleviate peak pressures on the airport terminal facilities (Mitigation 7.2-17). Peak-hour traffic volumes, particularly across the Haisla Bridge, will be managed by scheduling worker rotations, and equipment, material, and goods deliveries to the off-peak hours whenever practicable (Mitigation 7.2-18). Commuter support will be provided between Terrace and the Project site (e.g., scheduled crew transportation) to facilitate residents of the Greater Terrace area and nearby Aboriginal communities to participate in the Project while maintaining residence in home communities (Mitigation 7.2-19). 	Not significant. Given the existing capacity of transportation infrastructure in the LSA and the implementation of mitigation measures by LNG Canada, it is anticipated that the projected traffic volumes caused by Project activities and Project- related population growth will not exceed design capacity at any location. Therefore, these residual effects are assessed as not significant. Rail traffic volumes and the anticipated increase in traffic collisions are not expected to result in a substantial increase over the current conditions and are also assessed as not significant. While the increase in air traffic would exceed planned volumes for the terminal, direct effects will be managed through the use of chartered flights; therefore, these effects are also assessed as not significant.
Infrastructure and services (C)	Change in housing availability	 Construct and operate workforce accommodation centre(s) for non-resident workforce during the pre-construction and construction phase to manage effect of temporary workforce on communities (Mitigation 6.2-5). Local residents will be informed of job and procurement opportunities during the Project phases. LNG Canada will encourage a hire-local first approach for all phases (Mitigation 6.2-1). LNG Canada will work to manage demands on local housing (e.g., apartments and single-family houses) due to the anticipated requirements of the construction management and operational workforce, and will also include, in periodic reassessments of the housing market, the consideration of the risk posed by oversupply of accommodations (Mitigation 7.2-22). 	Not significant. With the construction and use of a workforce accommodation centre(s) and a commitment by LNG Canada to provide housing for its operation workforce, limited direct Project effects on housing availability are anticipated. Given LNG Canada's commitments to address residual effects on housing availability from the indirect and induced workforce, residual effects of the Project on housing availability are assessed as not significant

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects
		 Develop a worker accommodation plan that addresses worker accommodations throughout the project lifecycle, including pre-construction, construction, operation, decommissioning, and turnarounds (Mitigation 7.2-23). 	
		 Communicate with local and provincial housing authorities as early as possible regarding anticipated changes in the demand for worker accommodations between each project phase (Mitigation 7.2-24). 	
		 Participate in initiatives and recommended measures identified in the Northwest Communities Housing Action Plan to address the availability of affordable housing within northwest communities (Mitigation 7.2-25). 	
		 Work with communities in the local study area, including Aboriginal Groups, to help identify and address Project-related effects on housing (Mitigation 7.2-26). 	

NOTES:

¹ Construction Phase = C; Operation Phase = O; Decommissioning Phase = D

² See Section 20 (Summary of Mitigation Measures) for a full list of mitigation measures.

7.6.1.2 Summary of Cumulative Effects on Infrastructure and Services

Over the long term, cumulative effects associated with population growth are expected to be beneficial. Individuals and households that migrate to the RSA in response to economic opportunities will reverse the population decline that has occurred in most RSA communities for over a decade. The larger population and broader industrial tax base will enable local and regional governments to raise additional revenues that can be used to enhance services and finance capital spending.

Between 2015 and 2025, the RSA will benefit economically from industrial and infrastructure development, but a rapid increase in development is expected to adversely affect infrastructure and services, transportation infrastructure, and housing availability and affordability. Mitigation measures will manage most direct effects of the Project on community infrastructure, but there will be additional effects resulting from indirect and induced population change associated with the Project and other projects. Although local and regional governments will likely be able to raise sufficient funds to finance the increased service requirements, it is possible that during the period of rapid population change service demand will outstrip supply in certain areas, leading to a reduction in quality. This effect is expected to extend over the construction period only and will reverse once the population stabilizes around 2021; thus, the effect is anticipated to be adverse but not significant.

Transportation infrastructure in the RSA will similarly be affected by increased direct demands placed on it by the Project and other developments. Although transportation infrastructure overall has sufficient design capacity to handle the projected increase in demand, the Haisla Bridge is expected to be a significant pinch point in the full build-out scenario involving multiple projects located west of the Kitimat River. If no additional mitigation measures are undertaken, a significant adverse effect on transportation infrastructure (Haisla Bridge) might occur.

A rapid increase in permanent population will lead to decreased housing availability and affordability in the RSA. Communities in the LSA are already experiencing these issues, and this trend is expected to continue and increase in magnitude if additional large projects are constructed simultaneously. This effect is anticipated to be adverse, short term and significant, particularly on vulnerable populations in the LSA and RSA.

In summary, while proposed resource and infrastructure projects, including the LNG Canada Export Terminal Project, will contribute to beneficial economic and social development in the RSA over the long term, overall cumulative effects over the short term are anticipated to be adverse and significant with respect to housing availability and affordability and transportation infrastructure in the RSA.

7.6.2 Visual Quality

7.6.2.1 Summary of Project Residual Social Effects

The Project effects are reduced visual quality from the infrastructure development of the LNG facility, and reduced visual quality due to LNG carrier traffic. Table 7.6-2 summarizes Project residual effects on visual quality.

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects		
Facility Activities and Works					
Visual quality (C,O)	Reduction in visual quality	 A minimum 30 metre (m) wide mature riparian vegetation buffer will be maintained between the Project site and the Kitimat River, where practicable. If required, disturbance would be limited and adhere to applicable regulatory process (Mitigation 7.3-1). Tree and vegetation clearing for the Project components will be reduced to the extent possible outside of the Project footprint but some clearing may be required to enable construction. Where temporary tree and vegetation clearing occurs during construction, revegetation activity will occur as soon as possible (with the exception of areas cleared within the safety zone) (Mitigation 7.3-2). Footprint for LNG facility and temporary construction facilities will be sized to allow safe and efficient construction. Existing cleared areas will be utilized, where practicable, to limit area of new disturbance (Mitigation 5.3-4). The approved clearing boundaries will be 	Not significant. Overall, the potential effects of the LNG facility on visual quality are likely to be minor because the LSA already has an average of maximum modification disturbance (28.9%) and VQOs on adjacent VSUs will still be met.		
		clearly delineated (flagged) prior to site preparation to keep clearing activities within the designated Project footprint. (Mitigation 5.5-1).			
Shipping Activit	ies				
Visual quality (O)	Reduction in visual quality	 Project-related marine traffic including LNG carriers will use the Coast Guard Marine Communication and Traffic System (MCTS) to provide notice of planned arrival time at Triple Island, and encourage Aboriginal Groups and stakeholders to use the system to plan their routing and scheduling (Mitigation 7.3-3). No planned anchoring for the LNG carriers along the marine access route (unless directed to do so by BC Coast Pilots due to weather or other unplanned conditions); LNG carriers will only be permitted to enter the marine access route if a berth at the terminal will be available (Mitigation 7.3-4). 	Not significant. While the frequency and duration of large vessels will increase considerably over baseline conditions with the addition of the Project's LNG carriers, prominence is limited across all viewpoints and the average duration across all viewpoints is 41 hours per month (1.4 hours per day). However, because some viewpoints will experience an increase of 2.5 hours of viewing duration per day, it will be important to implement and maintain effective communication with other marine users so that they may plan routing around the LNG carrier schedules and thus limit undesired views of large industrial marine traffic.		

Table 7.6-2: Summary of Project Residual Effects on Visual Quality

NOTES:

¹ Construction Phase = C; Operation Phase = O

² See Section 20 (Summary of Mitigation Measures) for a full list of mitigation measures.

7.6.2.2 Summary of Cumulative Effects on Visual Quality

Proposed or reasonably foreseeable projects in the RSA may contribute to additional changes in vegetation patterns and topography, as viewed from identified viewpoints.

The shipping requirements of the Project and other operating, approved, proposed, and reasonably foreseeable projects in the shipping RSA will reduce visual quality because of increased frequency and duration of large vessels that are visible from viewpoints of importance in the shipping RSA.

Various land and marine management plans are currently being developed as a result of collaborative efforts between provincial and federal governments and Aboriginal Groups. Aboriginal Groups could provide future management direction relating to future large vessel use and activities in the shipping RSA, including effects on visual quality.

The Project's contribution to cumulative effects on visual quality in the facility RSA is assessed as not significant because of 1) the maximally modified nature of the LSA and 2) the combined visual effect from the projects will not exceed any established VQOs.

The Project's cumulative effects on visual quality in the shipping RSA are assessed as not significant because of 1) the low to moderate prominence of LNG carriers and 2) effective communications can help Aboriginal Groups and stakeholders to adjust their schedules or routing in order to reduce unwanted views of large vessels, including LNG carriers.

7.6.3 Marine Transportation and Use

7.6.3.1 Summary of Project Residual Social Effects

The Project effects on marine transportation and use are interference with marine navigation, interference with fisheries and shoreline harvesting, interference with marine recreation and tourism, and effects on marinas and moorage facilities. Table 7.6-3: Summary of Project Residual Effects on Marine Transportation and Usesummarizes Project residual effects on marine transportation and use.

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects
Facility Activities	and Works		
Marine transportation and use (C)	Interference with marine navigation	 Project-related marine traffic including LNG carriers will use the Coast Guard Marine Communication and Traffic System (MCTS) to provide notice of planned arrival time at Triple Island, and encourage Aboriginal Groups and stakeholders to use the system to plan their routing and scheduling (Mitigation 7.3-3). Regular communication on Project activities will occur with marine users, including recreationalists, commercial tourism operators, CRA fishers, Transport Canada, DFO, and relevant stakeholders (Mitigation 6.2-7). Use of safety zones which specify "no go" areas around the marine terminal for the safety of public marine traffic, during construction and operation (Mitigation 7.4-2). Support federal government in installation of any navigational aids determined to be necessary for safety on the new marine terminal where required (Mitigation 7.4-3). Provide notification and information to the Canadian Hydrographic Service to accurately include the appropriate marine terminal information and berth locations on future navigational charts (Mitigation 7.4-4). 	Not significant. The Project will not cause substantial and persistent interference to marine navigation. The berths are already in use, and the modifications will continue to allow vessels to travel in and around Douglas Channel. Safety around the marine terminal will be refined through the implementation of small but effective safety zones. Project residual effects related to interference with marine navigation are, therefore, assessed as not significant.
Marine transportation and use (C)	Effects on marinas and moorage facilities	 Provide input, with other industry and the municipal government, into the creation of a waterfront access space (that may include a public boat launch) for the community (Mitigation 7.4-5). 	Not significant. Project residual effects on marinas and moorage facilities will not result in a persistent decrease in the level of services provided to the community. Residual effects on marinas and moorage facilities will be low in magnitude, restricted to the head of Kitimat Arm, and occur as multiple irregular events in an area with moderate resilience. Residual effects will be reversible at the end of the Project lifecycle. Overall, mitigation measures will reduce competition for moorage in Kitimat by managing demand and increasing supply. As a result, the Project's effect on marinas and moorage facilities is assessed as not significant.

Table 7.6-3: Summary of Project Residual Effects on Marine Transportation and Use

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects	
Shipping Activities				
Marine transportation and use (C, O, D)	Interference with marine fisheries and shoreline harvesting	 Regular communication on Project activities will occur with marine users, including recreationalists, commercial tourism operators, CRA fishers, Transport Canada, DFO, and relevant stakeholders (Mitigation 6.2-7). Conduct, at a minimum, two safe-shipping workshops aimed at promoting safe navigation around shipping traffic for mariners prior to operation (Mitigation 7.4-1). Use escorts tugs between Triple Island and Kitimat during all LNG carrier transits (Mitigation 7.4-6). Project-related marine traffic including LNG carriers will use the Coast Guard Marine Communication and Traffic System (MCTS) to provide notice of planned arrival time at Triple Island, and encourage Aboriginal Groups and stakeholders to use the system to plan their routing and scheduling (Mitigation 7.3-3). LNG carriers will travel at speeds up to 14 knots. Speeds will vary depending on navigational safety, weather conditions, location, and marine marmal presence, and will be determined based on the judgement of the ship's master who receives advice from the BC Coast Pilots on board. Subject to navigational safety needs, in areas of high whale density between the northern end of Campania Island and the southern end of Hawkesbury Island, LNG carriers will travel at speeds of 8 or 10 knots from July through October (recognizing predicted periods of high use by marine mammals) (Mitigation 5.8-12). Strict adherence to the prescribed route and passing restrictions so that LNG Canada carriers may only pass other large commercial vessels in straight sections of the route (Mitigation 7.4-7). LNG carrier's passage route to avoid interference with fishers, where possible, with safety being primary concern (Mitigation 7.4-9). 	Not significant. The Project will not result in a substantial and persistent decrease in fishing opportunities. Many fisheries will not interact with shipping traffic because of either the fishing grounds not being located in the shipping corridor or the use of fishing gear or practices that preclude interactions. With implementation of mitigation measures, potential interference with fishing operations will be avoided or reduced to negligible levels. Project residual effects related to fisheries and shoreline harvesting are, therefore, assessed as not significant.	

Valued	Potential	Key Mitigation Measures ²	Significance Analysis of
Component ¹	Effects		Residual Effects
Marine transportation and use (C, O, D)	Interference with marine recreation and tourism	 Conduct, at a minimum, two safe-shipping workshops aimed at promoting safe navigation around shipping traffic for mariners prior to operation (Mitigation 7.4-1). Provide input, with other industry and the municipal government, into the creation of a waterfront access space (that may include a public boat launch) for the community (Mitigation 7.4-5). Regular communication on Project activities will occur with marine users, including recreationalists, commercial tourism operators, CRA fishers, Transport Canada, DFO, and relevant stakeholders (Mitigation 6.2-7). 	Not significant. The Project will not result in a substantial and persistent decrease in recreation or tourism opportunities or quality of experience. In addition, the Project will not reduce access to important sites or routes (e.g., kayaking and boating routes, anchorages, scuba dive and fishing sites), nor change the quality of experience available to residents and tourists alike. The port of Kitimat has existed since the 1950s, and most visitors have been exposed to fluctuating levels of shipping traffic. Most recreation and tourism sites exist outside the LSA and will not be affected by Project activities. The quality of experiences and perceptions of the area are not expected to change with two additional LNG carrier transits along the access route per day. Consequently, Project residual effects related to recreation and tourism are assessed as not significant.

NOTES:

¹ Construction Phase = C; Operation Phase = O; Decommissioning, Closure and Reclamation Phase = D

² See Section 20 (Summary of Mitigation Measures) for a full list of mitigation measures.

7.6.3.2 Summary of Cumulative Effects on Marine Transportation and Use

At full build-out, the Project could increase shipping traffic by up to approximately 350 LNG carrier visits per year along the marine access route from Triple Island to the port of Kitimat. If this Project and all reasonably foreseeable projects are approved, approximately 940 vessel visits per year are estimated to use the marine access route. LNG Canada could therefore contribute up to approximately one third to the overall estimated marine traffic levels.

Despite a large relative increase in shipping traffic compared with current levels, cumulative effects on marine transportation and use are assessed as not significant. The increased level of shipping is not expected to result in a substantial and persistent decreased in fishing and shoreline harvesting activities due to limited spatial overlap and limited interactions between large vessel shipping and

fishing/harvesting activities. As well, the cumulative change in shipping is not anticipated to result in a substantial and persistent decrease in recreation or tourism activities, or quality of experience.

As discussed in Section 7.4.8.2 other west coast BC ports currently accommodate over three times the volume of shipping estimated in the cumulative effects case for the Project, yet support viable fisheries, and recreation and tourism opportunities in their surrounding waters. This also supports the conclusion that the volume of large vessel shipping in the cumulative effects case is below the threshold for when significant adverse effects can occur.

The Project's contribution to cumulative effects on marine transportation and use will be eliminated or reduced to negligible levels through the implementation of the mitigation measures. These measures will promote the sustainability of marine transportation and use and reduce potential effects on navigation, fisheries, recreation, and tourism. LNG Canada will communicate regularly with commercial and recreational fishers (including guided anglers), DFO, Transport Canada, and other relevant parties to discuss fisheries related concerns. Collectively, these measures, among others, will help protect the sustainability of marine transportation and use. In summary, all cumulative effects on marine transportation and use are assessed as not significant.

7.6.4 Community Health and Wellbeing

7.6.4.1 Summary of Project Residual Effects on Community Health and Wellbeing

The Project effects are change in community health and wellbeing and change in diet and nutrition. Table 7.6-4 summarizes Project residual effects on community health and wellbeing.

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects		
Facility Works and Activities					
Facility Works an Community health and wellbeing (C, O, D)	Activities Change in community health and wellbeing	 Primarily house the initial workforce in several well managed open lodge facilities that are currently under construction in the LSA. Occupancy of the preferred lodges in the industrial areas of the LSA will be limited to the period prior to commissioning of the workforce accommodation centre(s) in the industrial areas of the LSA (Mitigation 7.5-1). Implement worker wellbeing and accommodation program to promote holistic worker health from a physical, mental, cultural and social perspective (Mitigation 7.5-2). Provide on-site health services and medical emergency response for primary care including health promotion, injury/illness prevention, and injury/illness management, in order to manage impact on the local public health care system (Mitigation 7.5-3). In the case of injury requiring evacuation of workers via ambulance, coordinate with local and provincial health providers for evacuation to appropriate medical facilities (Mitigation 7.5-4). Implement an employee Alcohol and Drug Policy, which will focus on pre-placement testing, awareness, prevention, and control, and will contain a strictly enforced prohibition on driving under the influence. Additional testing (with cause) may occur if required and in accordance with labour legislation (Mitigation 7.5-5). Develop a community engagement plan to assist communities in planning for an influx of workers. The plan will include initiatives to address potential community concerns, will facilitate communication with LSA communities, and will provide a framework for ongoing communication with Aboriginal Groups and local communities (Mitigation 7.5-6). Require contractors and subcontractors to adhere to health and safety programs that emphasize workplace health and welfare and adhere to traffic management policies (Mitigation 7.5-7). 	Not significant. Population change and employment and income associated with the Project will adversely affect community health and wellbeing through increasing demands on health care infrastructure and services, and changing community and family health, cohesion, and resilience. These changes will be greatest during Project construction and will continue, to a lesser degree, through operation and decommissioning. With the implementation of mitigation measures, the magnitude of residual effects on community health and wellbeing will be reduced. Residual effects on community health and wellbeing are assessed as not significant. Through mitigation measures, the local health care infrastructure and services will be able to cope with the added demand associated with the Project. Similarly, Project-related demand will not result in a substantial and persistent decline in the quality or accessibility of such services. The Project will not cause acute or chronic physical or mental health outcomes that are highly distinguishable and beyond the normal range of variability of baseline conditions.		

Table 7.6-4: Summary of Project Residual Effects on Community Health and Wellbeing

Valued Component ¹	Potential Effects	Key Mitigation Measures ²	Significance Analysis of Residual Effects
Community health and wellbeing (C, O)	Change in diet and nutrition	 Inform the local community and Aboriginal Groups of changes in access to the Project footprint and marine environment potentially affecting access to country foods (Mitigation 7.5-8). Provide Project information to the local community and Aboriginal Groups and hold information sessions to facilitate ongoing discussion regarding concerns (Mitigation 7.5-9). 	Not significant. Changes in access and availability of country foods in the LSA will occur over the life of the Project. However, with the implementation of planned mitigation, residual effects on the ongoing viability of wildlife and marine resources (see Section 5.6 and Section 5.8 for justification), as well as changes in access, are assessed as not significant. Public awareness and education about the Project will help to address concerns regarding the quality of country foods and limit the potential for consumers to forego consumption of country foods based on perceived contamination. Changes in the consumption of country foods leading to change in diet and nutrition will not be highly distinguishable from baseline conditions. Therefore, residual effects on diet and nutrition are assessed as not significant.
Shipping Activiti	es		
Community health and wellbeing (C, O, D)	Change in diet and nutrition	 Inform the local community and Aboriginal Groups of changes in access to the Project footprint and marine environment potentially affecting access to country foods (Mitigation 7.5-8). Provide the local community and Aboriginal Groups with Project information related to how LNG facilities operate and hold information sessions to facilitate ongoing discussion regarding concerns (Mitigation 7.5-9). 	Not significant. Changes in access and availability of marine country foods in the LSA will occur over the life of the Project. However, with the implementation of planned mitigation, residual effects on the ongoing viability of marine resources, as well as changes in access, are assessed as not significant. Engagement with the public and Aboriginal Groups and education about the Project will help address concerns regarding the quality of country foods and limit the potential for consumers to forego consumption of country foods based on perceived contamination. Changes in the consumption of marine country foods leading to change in diet and nutrition will not be highly distinguishable from baseline conditions. Therefore, residual effects on diet and nutrition are assessed as not significant.

NOTES:

¹ Construction Phase = C; Operation Phase = O, Decommissioning Phase = D

² See Section 20 (Summary of Mitigation Measures) for a full list of mitigation measures.

7.6.4.2 Summary of Cumulative Effects on Community Health and Wellbeing

Over the long term, cumulative effects associated with population growth are expected to be beneficial. Individuals and households that migrate to the RSA in response to economic opportunities will reverse the population decline that has occurred in most RSA communities for over a decade. The larger population and broader industrial tax base will enable local and regional governments to raise additional revenues that can be used to enhance community and social services and finance capital spending.

Demand for health care infrastructure and services associated with the induced and indirect population of the Project are forecast to increase through 2025. Because cumulative increased demand is expected to outpace the ability of public health care funding models to increase capacity, a sustained increase in the demand is expected. Increased demand will adversely affect health care infrastructure and services delivery. Similarly, increased cumulative demand for legislatively required inspections of the food preparation and dining facilities as well as permitting and compliance associated with water systems, sewerage systems (where applicable), the operation of industrial camps, the use, sale and display of tobacco products (where applicable) and responses to enteric disease outbreaks in the RSA will adversely affect levels of service associated with environmental health officers; also publicly funded.

Mitigation measures will manage most direct effects of the Project on community infrastructure, but there will be additional effects resulting from indirect and induced population change associated with the Project and other projects. Although local and regional governments will likely be able to raise sufficient funds to finance the increased health care service requirements, it is possible that during the period of rapid population change service demand could lead to a reduction in service quality; context is therefore moderately resilient. Cumulative effects will extend over the construction period and into operation as a multiple irregular event and into early operation because the ability of the publicly funded health care system to respond to changes in demand has an associated lag factor; funding is based off permanent population of which remains largely fluid until operation. The cumulative effect will be high magnitude, extend throughout the RSA and long term in duration; the cumulative effect is assessed as significant but expected to be reversible following public health care funding adjustments.

Cumulative effects will not restrict access to or affect the availability of country foods in the RSA to the extent that diets or nutrition will be adversely affected. Based on the outcomes of the cumulative effects assessment for the environment VCs (Section 5), cumulative changes on viability of vegetation and wildlife will not occur and, therefore, will not affect the availability of country foods. There is the potential for individuals (Aboriginal and non-Aboriginal) to forego consumption of country foods based on quality concerns; however, mitigation measures will manage the magnitude of the Project contribution. Context is therefore assumed to be moderately resilient. The cumulative effect will be continuous, low (terrestrial) to moderate (marine) magnitude, extend throughout the RSA, and long term in duration; however, the

cumulative effect is assessed as not significant and as reversible following decommissioning and reclamation.