

LNG Canada Community Level Infrastructure and Services Management Plan 2020 Annual Report



July 28, 2021



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Authorship

Megan Macdonald B.Sc. (Stantec Consulting Ltd.)

Author

Nina Arvanitidis B.Sc., MBA (LNG Canada)

Author

Tala Al-Obaidi B.Sc. (Stantec Consulting Ltd.)

Author

Frank Bohlken B.Sc., MRM (Stantec Consulting Ltd.)

Reviewer

Sandra Webster Ph.D. (Stantec Consulting Ltd.)

Reviewer



Executive Summary

LNG Canada is committed to managing socio-economic effects associated with the construction and operation of its liquefied natural gas (LNG) facility and marine terminal (the Project). LNG Canada began implementation of its Community Level Infrastructure & Services Management Plan (CLISMP, or the Plan) on April 1, 2019. The CLISMP entails Social Management Plans (SMP) that outline actions to mitigate the Project's adverse direct effects¹ on community-level infrastructure and services, community engagement mechanisms, socio-economic monitoring and reporting over the duration of construction and two years into operations. CLISMP scope focuses on communities near the LNG Plant footprint, namely: District of Kitimat (DOK), City of Terrace (COT), Regional District of Kitimat-Stikine (RDKS), Haisla First Nation, Kitselas First Nation and Kitsumkalum First Nation.

This 2020 Annual Report is intended to inform the BC Environmental Assessment Office (BC EAO), BC Ministry of Municipal Affairs (MUNI) and other stakeholders of Project updates, CLISMP reporting metrics, mitigation effectiveness, and adjustments or adaptive mitigation measures during implementation of the CLISMP from January 1–December 31, 2020. SMP monitoring data and highlights from Social Management Roundtable meetings have been captured in quarterly updates, which include information on mitigation measures and adaptive management. Following completion of Project construction and two years of Project operations, a final plan report will be provided that will include a summary of the Plan's effectiveness in achieving socio-economic objectives, and a summary of each Annual Report submitted during construction (LNG Canada 2019).

Project Activities

LNG Canada, together with its prime contractor JGC Fluor BC LNG JV (JFJV), began to implement the CLISMP in April 2019 to reduce direct adverse effects that could result from Project activities interacting with the following areas of community level infrastructure and services: housing and accommodations, traffic, emergency response, community health, community amenities, education, and utilities.

Kitimat, Terrace and surrounding communities have a long history intertwined with industrial development and cycles of boom and bust. During CLISMP development in 2015, consultation and engagement efforts by LNG Canada incorporated learning from pertinent experience into the design of mitigation strategies and the monitoring metrics captured in Social Management Plans (SMPs). An overarching mitigation has been an emphasis on preferential hiring of qualified local residents to reduce the number of non-local workers mobilized to Kitimat and the surrounding area. Several strategies are actively deployed to minimize potential impacts to the community arising from the non-local workforce, including accommodating non-local workers in dedicated workforce accommodation centers, and the policy of not paying living out allowance (LOA), thereby limiting direct demand on local housing markets and overall community infrastructure and services, as was experienced with previous project developments.

¹ A direct effect is one that results from Project activities or is related to the Project's temporary workforce.

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Project activities in Kitimat over the course of January to December 2020 included marine activities (dredging, construction of Rio Tinto terminal A wharf extension, salt marsh activities), site preparation (stripping, excavating, rough grading), hauling of aggregate, delivery of road shipments, such as materials for the construction and operation of Cedar Valley Lodge, delivery of marine shipments (materials for construction), and construction activities to progress work at the Material Offload Facility, LNG Tank, Module Haul Road, LNG Berth among others. In July 2020, the Project began operations of the on-site workforce accommodation centre Cedar Valley Lodge.

During 2020, the Project provided accommodation for non-local workers in workforce open lodges in Kitimat as well as on site at Cedar Valley Lodge. In November 2020 a peak of 2,427 non-local workers were accommodated at dedicated workforce accommodations in Kitimat, with 93% of workers housed on-site at Cedar Valley Lodge. The Project employed a peak of 811 workers from local communities in 2020, which occurred in August. LOAs were not paid to workers at any time in 2020.

In March 2020, COVID-19 was declared a global pandemic, which directly impacted Project activities at the Kitimat Project site, effectively limiting work activities and the total size of the workforce during Q2 2020, and limiting workforce increases for the remainder of the year. COVID-19 prevention and care protocols focused on the safety of the workforce and surrounding communities were developed and continued to evolve over the course of 2020.

Summary of Project Effects

Overall, the Project had limited direct impacts on community level infrastructure and services in 2020. However, an increase in indirect effects² was noted in surrounding communities and attributed to the increase in economic activity in the region, as well as due to changes in demand resulting from the COVID-19 pandemic. Table 0-1 summarizes the direct Project effects on community infrastructure and services measured in 2020 and evaluates the effectiveness of mitigations.

² Indirect/induced effects are not attributable to Project activities directly, but rather due to community changes brought about by changes in economic activity indirectly associated with the Project.



Table 0-1 Summary of Direct Project Effects January–December 2020

| Social Impact Category | Measurable Project Related Changes | Effectiveness of Mitigations |
|-------------------------------|--|---|
| Housing & Accommodations | In November 2020, a peak of 2,427 non-local workers were accommodated at dedicated workforce accommodations in Kitimat while on rotation, with 93% of workers housed on-site at Cedar Valley Lodge. In the same period, a peak of 54 Project employees accompanied by 25 children had been relocated to Kitimat and provided with company housing. | By prioritizing hiring from the local area, providing housing for non-local workers in open lodges and Cedar Valley Lodge, providing company housing for relocated Project employees with family, and not paying living out allowances (LOA) to the workforce, the Project has limited demand on market housing. As of December 2020, the Project was only using Cedar Valley Lodge to house the workforce and was not using any of the open lodges in Kitimat. |
| Community Health ³ | There were 41 Project-related occupational injuries and illnesses and 109 non-occupational injuries and illnesses requiring treatment ⁴ in local hospitals in 2020. A total of 5,663 visits to Project-provided medical clinics occurred in 2020 to address non-occupational injury or illness. | By providing a full range of medical services at the Project site and at workforce accommodation centres, the Project has limited direct demand on local medical services. |
| Air Traffic | 9.3% of the average YXT passenger volume on commercial flights was directly attributable to the Project movement of workers. The overall passenger volume on commercial flights in 2020 was low due to COVID-19. | In the second half of 2020, approximately 70% of the workforce traveled by charter flights, which operate out of a hangar separate from the main NWRA terminal. By providing these chartered flights, Project direct effects on the Northwest Regional Airport terminal were reduced. |
| Road Traffic | 1.8% increase in overall road traffic on Hwy 37 north of Kitimat (estimated from MOTI Traffic Data) was directly attributable to the Project movement of workers, with additional road use associated with delivery of materials and equipment. | By transporting workers to and from the airport, lodges, and the Project site on company-provided shuttles, establishing Park & Ride lots, and enforcing shuttle transit for local workers, the Project has limited the use of personal vehicles on local roads. |

³ The Project response to the COVID-19 pandemic is excluded from the summary and outlined in detail in section 3.2. Throughout 2020, the Project continued to adapt its activities and enhance procedures and protocols to reduce the risk of infection in the workplace and to support the needs of surrounding communities.

⁴ Treatment in local hospitals includes ER visits, x-ray visits, and diagnostics.



Table 0-1 Summary of Direct Project Effects January–December 2020

| Social Impact Category | Measurable Project Related Changes | Effectiveness of Mitigations |
|-----------------------------|--|---|
| Emergency Response Services | 28 incidents required ambulance service calls, one incident required a fire department service call, and 12 incidents required RCMP response at the Project site. There were no medical evacuations required. Approximately 1.4% of Kitimat Emergency Response calls and 0.3% of RCMP calls for service were directly attributable to the Project in 2020. | By implementing Emergency Response Plans, the Safer Together Program, and regularly engaging with RCMP and First Responders, while requiring workers code of conduct and cultural awareness training for all workers, the Project has reduced direct demand for local emergency services. |
| Community Amenities | There were no known adverse changes in the available service capacity of community amenities providers that were attributable to the Project | By providing recreational facilities in Cedar Valley Lodge (such facilities are also provided in open lodge accommodations) the Project is limiting direct demand on community amenities. |
| Education | 25 school-age children relocated to the area accompanying Project employees with no notable impact on educational enrollment rates. | By limiting the number of employees relocated to Kitimat with accompanying family, Project direct effects on childcare facilities and education programs were limited. |
| Utilities | The Project's disposal of construction and demolition waste, garbage and sludge cake in 2020 has contributed to the decline in available landfill capacity at the Forceman Ridge facility. As a result of increased waste received in 2019 and 2020 from out-of-service area users including the Project, RDKS has increased out-of-service area fees. The landfill has a total capacity of over 1.5 million m ³ , with the next expansion planned for 2023. No waste from the Project site was disposed at the Kitimat municipal landfill in 2020. | By implementing the Waste Management Plan, providing self-sufficient water and wastewater treatment facilities at the Project site, avoiding the use of DOK landfill, limiting the use of DOK wastewater treatment facilities, sending all hazardous waste streams and many recycling materials for disposal outside the region, and utilizing controlled waste permits to dispose of non-hazardous solid waste at RDKS Forceman Ridge, the Project has managed its waste disposal and limited direct demand on municipal utilities. The Project is working directly with RDKS to plan for future anticipated waste disposal to minimize unintended strain on regional landfills. |

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Available socio-economic data for 2020 indicates that the Project has managed its direct demand on community level infrastructure and services. By limiting its direct demands, adverse effects directly attributable to the Project were limited in 2020. However, since the implementation of the CLISMP in 2019, a two-year trend of increasing demands on the RDKS Forceman Ridge Waste Management Facility has been observed and as a result, adaptive management mitigation measures began in early 2021. These mitigation measures include providing the RDKS with Project waste disposal projections to enable planning and decision-making. The Project will continue to work with communities and government to understand and help address broader, complex challenges unfolding in the region.

Summary of Community Trends

Monitoring of socio-economic metrics in 2020 shows that changes in activity and/or demand for all infrastructure and services were greatly impacted by the COVID-19 pandemic. In several instances, such as air traffic and community amenities, demand for infrastructure and services has drastically decreased, likely due to travel restrictions and closures implemented in response to the COVID-19 pandemic. Despite the pandemic, an overall increase in economic activity and regional population changes continue to affect infrastructure and services such as housing. Housing market impacts are occurring in both Kitimat and Terrace and have been evident as early as 2018, seemingly driven by real estate speculation with compounding effects on area demand for affordable and social housing. Feedback from some service providers suggests ongoing attrition of staff to higher paying Project-related opportunities with challenges attracting and backfilling positions due to high housing costs.

For 2020 the following community trends were observed, indicative of an overall increase in economic activity and population growth (percent changes year-over-year compared to 2019, unless otherwise stated):

REGION

- General attrition of service provider staff, affecting the capacity to deliver services.
- High housing costs and lack of available and affordable rental housing, affecting the ability to attract and retain service staff.
- In response to COVID-19, Emergency Weather Response (EWR) Shelters operating at reduced capacities with operations extended to provide year-round service from April 2020 to March 2021.
- 21% decrease in hotel/motel occupancy and 8% decrease in average daily rates (ADR).
- 50% decrease in commercial passengers transiting through Northwest Regional Airport (YXT).
- 10% decrease in K-12 student enrollment.
- 83% overall increase in materials processed at the Forceman Ridge Waste Management Facility, largely attributed to out-of-service area users with a 41% increase in landfilled waste, a 16% increase in diverted materials including organics and clean wood, and a 1,120% increase in soil received for beneficial use in landfill management.

KITIMAT

HOUSING & CHILDCARE

- Continual demand for social housing and non-resident support services.
- The Kitimat EWR Shelter operated 24/7 for the full year of 2020 as a Capacity Expansion Shelter in response to the pandemic.

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- Usage at the TSW Dunmore Place Transition House declined in 2020; however, the number of women that were turned away in 2020 increased. The decline in usage was not due to lack of demand but rather due to decreased capacity associated with the pandemic.
- Average 22 percentage point decrease in rental vacancy, from 37.7% in 2019 to 15.4% in 2020, and 17% increase in average rent, from \$1,263 in 2019 to \$1,475 in 2020.
- Residential housing prices have decreased 10%, from \$371,357 in 2019 to \$334,441 in 2020.
- Demand for licensed childcare spots substantially exceeds availability. Childcare centres operating below capacity due to inability to attract, retain and train qualified staff.

EMERGENCY RESPONSE

- 31% increase in total calls for service to Kitimat Fire and Ambulance Service (KFAS).
- 5% increase in calls for service to Kitimat RCMP.

COMMUNITY HEALTH

- 11% decrease in annual ER visits at Kitimat General Hospital.

COMMUNITY AMENITIES

- Large decline in utilization of community amenities (Riverlodge, Sam Lindsay Aquatic Centre + Tamitik Complex).

TERRACE

HOUSING

- Continual demand for social housing/ support services. Social housing operators unable to reach full capacity (e.g., due to COVID-19 restrictions and due to staffing shortages).
- Seasonal Emergency Weather Shelter was extended as a Capacity Expansion Shelter and operated 24/7 for the full year 2020 with ongoing demand.
- Usage at the Ksan Society Transition House (TH) declined to capacity.
- Average 2.3% increase in rental vacancy and 2% decrease in average rents, Terrace's housing rental market remains tight, averaging 4.4% vacancy as of October 2020.
- Residential housing prices decreased 1%.
- Demand for licensed childcare spots substantially exceeds availability.

EMERGENCY RESPONSE

- 60% decrease in Terrace Fire Department calls.
- 3% increase in the number of calls to Terrace ambulance (BC Emergency Health Services) and the number of transfers in/out of the region.
- 11% decrease in Terrace RCMP calls.

COMMUNITY HEALTH

- 17% decrease in annual ER visits at Mills Memorial Hospital (MMH).

COMMUNITY AMENITIES

- Large decline in attendance to some community amenities (Sportsplex Complex).

UTILITIES

- 6% decrease in average potable water demand, and 6% increase in average wastewater flow.

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Community monitoring data has shown that mitigations implemented by the LNG Canada Project have limited its direct effects on community infrastructure and services in the Kitimat and Terrace area, for most infrastructure and service areas covered by the CLISMP apart from the Utilities SMP. The two-year trend of increased disposal at the RDKS Forceman Ridge waste management facility indicated both direct and indirect effects of the Project on the regional landfill and resulted in adaptive management mitigation measures, which began in early 2021. The Project and the RDKS are working together in 2021 to assess and plan for future waste disposal. It is also evident that the general economic activity occurring in the Kitimat and Terrace region, associated with the Project and other projects, has affected both the supply and demand for some services. Community monitoring efforts by the Project include quantitative data and anecdotal feedback which has enabled a meaningful level of awareness and discussion with communities and government. At the same time, quarterly data collection has proven to be a resource-intensive process and some data providers have been challenged to provide timely, accurate and/or complete data.

Social Management Roundtable

The Social Management Roundtable (SMR) serves as a quarterly engagement forum convened by LNG Canada and JFJV to evaluate the effectiveness of mitigation measures outlined in the CLISMP. The SMR follows a shared responsibility framework and participants include subject matter experts from the Project team, local government, regional and provincial agencies, nearby Indigenous communities, and local service providers. To support CLISMP implementation efforts for 2020, LNG Canada and JFJV convened four SMR sessions:

- 2020 Q1 meeting (held virtually on May 5, 2020)
- 2020 Q2 meeting (held virtually on September 15-16, 2020)
- 2020 Q3 meeting (held virtually on December 8, 2020)
- 2020 Q4 meeting (held virtually on February 23-24, 2021)

The SMR meetings pulled together four working groups to review Project metrics and community monitoring trends, and to gather feedback and better understand the experiences of the community. Working groups entailed: 1. Housing & Accommodations (quarterly); 2. Community Health (quarterly); 3. Traffic & Emergency Response (quarterly); and 4. Community Amenities, Utilities & Education (semi-annually).

Action items were identified for the Project team and other SMR participants, along with more complex items for follow up discussion by BC Government. A quarterly summary report evaluating mitigation effectiveness and capturing meeting highlights was prepared and published online after each session.



Abbreviations

| | |
|----------|---|
| ADR | average daily rate |
| AIF | Airport Improvement Fee |
| BC | British Columbia |
| BC EAO | BC Environmental Assessment Office |
| BCEHS | BC Emergency Health Services |
| BCNREB | BC Northern Real Estate Board |
| CDC | Centre for Disease Control |
| CEBA | Canada Emergency Business Account |
| CERB | Canadian Emergency Response Benefit |
| CEWS | Canada Emergency Wage Subsidy |
| CGL | Coastal GasLink |
| CLISMP | Community-Level Infrastructure and Services Management Plan |
| CMHC | Canadian Mortgage and Housing Corporation |
| CMSD | Coast Mountain School District |
| COT | City of Terrace |
| COVID-19 | Coronavirus Disease 2019 |
| CWB | Community Well-Being |
| DM | District Municipality |
| DOK | District of Kitimat |
| EAC | Environmental Assessment Certificate |
| ECE | early childcare educator |
| ER | emergency room |
| EWR | Extreme Weather Response |



| | |
|-------------|---|
| FID | final investment decision |
| FNHA | BC First Nations Health Authority |
| FOMT | Facility Outbreak Management Team |
| ha | hectare |
| HAI | Housing Affordability Index |
| HRVA | Hazard, Risk and Vulnerability Analysis |
| HSDA | Health Service Delivery Area |
| HTC | Haisla Town Centre |
| ICBC | Insurance Corporation of BC |
| IVMS | In-Vehicle Monitoring System |
| JFJV | JGC-Fluor BC LNG JV (Prime Contractor) |
| KFAS | Kitimat Fire and Ambulance Service |
| KGH | Kitimat General Hospital |
| Kitimat CDC | Kitimat Child Development Centre |
| KRS | Ksan Residence and Shelter |
| KVES | Kitimaat Valley Education Society |
| LNG | liquefied natural gas |
| LNGC | LNG Canada; the Proponent` |
| LOA | Living Out Allowance |
| MMH | Mills Memorial Hospital |
| MOTI | Ministry of Transportation and Infrastructure |
| MUNI | Ministry of Municipal Affairs |
| MVI | Motor Vehicle Incident |
| NHA | Northern Health Authority |
| NHSDA | Northern Health Service Delivery Area |

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| | |
|------|--------------------------------------|
| NRS | Non-Resident Support |
| OFA | Occupational First Aid |
| PCR | Polymerase Chain Reaction |
| PDO | Property Damage Only |
| PHO | Provincial Health Officer |
| PPE | Personal Protective Equipment |
| PRC | Project Resource Centre |
| RCMP | Royal Canadian Mounted Police |
| RDKS | Regional District of Kitimat-Stikine |
| RT | Rio Tinto |
| SMP | Social Management Plan |
| SMR | Social Management Roundtable |
| TFD | Terrace Fire Department |
| TIS | Traffic Impact Study |
| TSW | Tamitik Status of Women |
| UNBC | University of Northern BC |
| WHO | World Health Organization |
| WMF | Waste Management Facility |
| YOY | year-over-year |
| YXT | Northwest Regional Airport |



1. Introduction

LNG Canada is building a liquefied natural gas (LNG) export facility (the Project) located in northwest British Columbia (BC), in the District of Kitimat and the traditional territory of the Haisla Nation. The Project is comprised of an LNG facility and supporting infrastructure, including LNG storage and marine loading facilities, and temporary construction-related infrastructure and facilities. Project-related marine shipping passes through the traditional territories of Haisla Nation, Gitga'at First Nation, Gitxaala Nation, Kitselas First Nation, Kitsumkalum First Nation, Lax Kw'alaams Band and Metlakatla First Nation.

The Project is located on approximately 400 hectares (ha) of land within the District of Kitimat (DOK), on land zoned for industrial use. A large portion of the LNG Plant site is located on a former industrial site previously occupied by Methanex. At full build out, the LNG Canada facility will be comprised of a variety of buildings and equipment used to process and store LNG. Supporting infrastructure will also be in place, including power supply, water supply, and wastewater collection and treatment facilities.

LNG Canada is committed to planning, constructing and operating the Project in a manner that respects surrounding communities and the environment. The final investment decision (FID) for the Project was announced on October 1, 2018. On April 1, 2019, LNG Canada, together with its Prime Contractor JGC-Fluor BC LNG JV (JFJV), began implementation of its Community Level Infrastructure & Services Management Plan (CLISMP).

The CLISMP addresses the requirements of Condition #14 (Community Services and Infrastructure) of LNG Canada's Environmental Assessment Certificate (EAC) and the concerns raised by Indigenous Groups, local governments, community groups, and stakeholders over potential adverse socio-economic effects resulting from a sudden large population influx associated with the construction of a large project near lightly populated communities in BC. The CLISMP includes social management plans (SMPs) that outline actions to mitigate the Project's adverse direct effects on community level infrastructure and services, community engagement mechanisms, socio-economic monitoring and reporting requirements over the duration of construction and two years into operations.

The objectives of the CLISMP, as defined by LNG Canada (2016, revised 2019), are to:

- Fulfill the regulatory requirements and standards relevant to implementing the plan.
- Identify relevant plans and/or initiatives that will prevent, manage or mitigate the potential direct adverse community-level infrastructure and service effects of the Project.
- Outline an engagement framework, including reporting and monitoring, for sharing information about project effects and status of mitigation plans with relevant stakeholders and Indigenous Groups.
- Outline the adaptive management approach whereby mitigation measures can be adjusted, and new measures developed to address the project effects as necessary.

This Annual CLISMP Report is intended to inform the BC Environmental Assessment Office (BC EAO), BC Ministry of Municipal Affairs (MUNI) and other stakeholders of project updates, reporting metrics, mitigation effectiveness, and adjustments or adaptive management measures during implementation. Additional baseline contextual information to support ongoing reporting efforts for the CLISMP implementation can be found in the 2019 CLISMP Annual Report (LNG Canada 2020a).



The report is organized into the following sections:

- **Methods:** a description of data collection and analysis, role of the social management roundtable, means for assessing the effectiveness of mitigation measures, and reporting requirements.
- **Project Updates:** summarizes construction activities taken place to date, workforce numbers, strategic local investments by LNG Canada and local partnerships, and economic benefits associated with employment, workforce development, contracting and procurement and municipal contributions.
- **Regional Overview:** overview of the regions socio-economic conditions and changes in population.
- **SMP Report Updates:** updates on the community level infrastructure and service areas addressed by the SMPs (housing and accommodation, traffic, emergency response, community health, community amenities, education and utilities), summary of project reporting and community reporting, Social Management Roundtable (SMR) feedback on the effectiveness of the SMP and the need for new or modified mitigation measures.

In addition to this annual report, quarterly updates are prepared and published summarizing SMP implementation and SMR highlights. A final report will be provided following completion of Project construction and two years of operations, which will include a summary of the Plan's overall effectiveness in achieving socio-economic objectives, and a summary of each annual report submitted during construction (LNG Canada 2019).

This report was prepared by LNG Canada and Stantec Consulting Ltd., with Project data input and review provided by JFJV. LNG Canada wishes to acknowledge the organizations who have provided data for this report and/or participated in SMR meetings. Participating organizations are identified in Appendix A.

1.1. CLISMP Activity Summary

CLISMP activities from January to December 2020 included:

- Implementation of SMPs by LNG Canada and JFJV. These plans outline mitigation strategies to limit direct adverse effects that could result from Project activities interacting with the following areas of community level infrastructure and services: 1) Housing & Accommodations; 2) Community Health; 3) Traffic; 4) Emergency Response; 5) Community Amenities; 6) Education; and 7) Utilities. They also identify Project and community metrics for monitoring changes in demand in community infrastructure and services covered by the SMPs.
- Monthly Project monitoring (internal) to support SMP implementation.
- Ongoing stakeholder and Indigenous engagement efforts pertaining to the CLISMP outlined in Section 2.2 below, including a community feedback process.
- Community monitoring (external) continued with ongoing data collection and analysis (data available quarterly or less frequently)
- Quarterly summary reports capturing SMR actions and highlights including information on mitigation implementation and adaptive management.
- Annual Report submitted to EAO and MUNI and shared with SMR participants, including Project updates, reporting metrics, a summary of mitigation effectiveness and adjustments or changes made to mitigation measures following their implementation.



1.2. CLISMP Scope Area

The CLISMP scope focuses on the following communities and Indigenous groups, which, due to their proximity to the Project site, have greater potential to experience effects on infrastructure and services related to Project activities: District of Kitimat, City of Terrace, Regional District of Kitimat-Stikine (RDKS), Haisla Nation, Kitselas First Nation and Kitsumkalum First Nation. For effects on health services and infrastructure, the following additional Indigenous communities are included in the spatial scope: Gitxaala Nation and Gitga’at First Nation. Throughout this document, communities within the CLISMP scope area will be referred to as the Kitimat-Terrace area.

1.3. Engagement

LNG Canada’s stakeholder and Indigenous engagement program to support CLISMP implementation is designed to:

- Improve awareness and understanding of the Project and its potential effects
- Minimize potential adverse effects and enhance Project benefits
- Develop and maintain relationships
- Address concerns, where possible

LNG Canada reviews its engagement mechanisms on an ongoing basis and revises its approach as needed. Table 1-1 outlines a range of CLISMP-related engagement activities carried out by LNG Canada and JFJV, during 2020. These activities are complemented by routine and frequent engagement with Indigenous groups, community organizations, and local governments, including key authorities and planning focal points. Additional engagement and consultation activities beyond the scope of the CLISMP are not reflected below.

Table 1-1 Project Community Engagement in 2020

| Engagement Type | Activities During 2020 |
|-----------------------------------|---|
| Regulatory | A meeting was held with both BC EAO and MAH in 2020 Q2 to review the 2019 CLISMP Annual Report. In addition, meetings were held with MAH in Q2 and Q3 2020 to better understand housing mitigation efforts. |
| Community Feedback Process | From January 1-December 31, 2020, 2,939 inquiries related the Project were received from the community and addressed. Of these, 72 were concerns or complaints, with 46 concerns or complaints related to infrastructure & services impacts, primarily traffic and community health (COVID-19 concerns). |
| Project Website and Facebook page | www.jfvkitimat.com provides online construction updates, employment and contract opportunities. Follow JFJV Kitimat on Facebook (3,707 followers) www.lngcanada.ca provides online Project information. Follow LNG Canada on Facebook (32,437 followers) |



| Engagement Type | Activities During 2020 |
|--|---|
| Project Resource Centre (PRC) | A walk-in Project information centre located in the Kitimat mall open Monday through Friday. The PRC was closed to the public due to the COVID-19 pandemic from March 16-July 6. It also shut down from December 23-31 due to seasonal closures and continued to be shut into 2021 due to the Public Health Order (PHO) issued by Northern Health. |
| Social Management Roundtable (all meetings held virtually via Skype for Business or Microsoft Teams platforms) | <p>Q1 SMR meeting, May 5, 2020: (3 working groups) 70 Participants, representing a total of 26 communities, Indigenous Groups, government agencies, and stakeholder groups joined the session.</p> <p>Q2 SMR meeting, September 15-16, 2020: (4 working groups) 85 participants, representing a total of 32 communities, Indigenous Groups, government agencies, and stakeholder groups joined the session.</p> <p>Q3 SMR meeting, December 8, 2020: (3 working groups) 70 participants, representing a total of 28 communities, Indigenous Groups, government agencies, and stakeholder groups joined the session.</p> <p>Q4 SMR meeting, February 23-24, 2021: (4 working groups) 76 participants, representing a total of 34 communities, Indigenous Groups, government agencies, and stakeholder groups joined the session.</p> |
| Open Houses | <p>Supplier Forum and Job Fair held January 30, 2020 in Kitimat, involving 27 Project subcontractors and engaging over 110 local area businesses on supply chain opportunities during construction.</p> <p>Due to COVID-19 restrictions on public gatherings in place from March - December 2020, no community open houses were held by the Project.</p> |
| Municipal Government Engagements | <p>Project Updates are provided multiple times per year to local municipalities with an opportunity for municipal leaders to ask the Project questions and provide feedback. The following formal meetings took place with municipal elected officials in 2020:</p> <ul style="list-style-type: none"> • February 25, 2020 Joint LNG Canada-CGL Project Update for DOK Mayor and Council • March 3, 2020 Joint LNG Canada-CGL Project Update for COT Mayor and Council • July 13, 2020 LNG Canada Project Update at DOK Council meeting • July 30, 2020 LNG Canada Project Update for COT Council meeting • December 4, 2020 LNG Canada COVID-19 Management Update for DOK Mayor and Council |



2. Methods

2.1. Data Collection and Analysis

Project and community monitoring data relevant to the CLISMP was collected and presented at SMR meetings and summarized in quarterly reports. A pre-read package that summarized Project and community monitoring data was provided to SMR participants in advance of the 2020 quarterly meetings.

The Project collected monthly data on metrics identified as “Reporting Metrics, LNG Canada team” in Appendix 4 of the CLISMP (SMPs). Counted in Project data is information collected by LNG Canada, JFJV. Appendix B lists Project metrics by SMP.

Community monitoring data is information that illustrates changes in infrastructure and service level demand at the community level. Most of the community data was collected from government agencies, service providers, and web-based information sources. Data on the rental housing market was supplemented with quarterly estimates of rental vacancy rates based on telephone surveys of rental accommodations providers, and an analysis of rental listings available on websites including Craglist.ca and Kijiji.ca. Data was collected quarterly. The frequency of community data depended on the provider, with some data available on a monthly basis, and other information less frequent. Appendix B lists community data by source and frequency. In several instances, data sources were challenged to provide timely community data to support SMR timelines for 2020. Project and community data were summarized on a quarterly basis in 2020 for Q1 (January–March), Q2 (April–June); Q3 (July–September); and Q4 (October–December).

Community data was analysed using a year-over-year (YOY) comparison method where 2020 data was compared with the same annual data from 2019 and 2018, when available. This technique enabled the identification of changes in community indicators that may be attributable to the Project. Comparing changes on a YOY basis removes seasonality effects.

YOY comparisons were not made when 2018 and 2019 data sets were not available, such as some of the emergency room data provided by Northern Health (see Section 8.4). YOY comparisons were also not made when there was a known change in data measurement procedures. Changes from 2019 to 2020 are also compared to appropriate longer-term data, presented on an annualized basis, in order to contextualize changes with respect of longer-term trends.

2.2. Social Management Roundtable

The SMR is a forum that facilitates discussion of direct Project effects on infrastructure and services between the LNG Canada Project team, provincial and federal agencies, local and regional governments, and Indigenous communities. Appendix A lists organizations that were represented at 2020 SMR meetings. SMR working groups met either quarterly or semi-annually to be informed of Project activities, review Project and community data, discuss trends, issues, and concerns, and identify actions for follow up by the Project team or other SMR participants. The SMR is guided by a terms-of-reference, which identifies CLISMP background, roles and responsibilities of SMR members and SMR activities.



Based on a shared responsibility framework, SMR working groups are comprised of a wide range of stakeholders that engage either quarterly or semi-annually to manage the Project's social effects, both adverse and positive. The SMR is supported by ongoing internal and external data collection and analysis, prepared ahead of time as a pre-read document and reviewed by participants prior to the meeting, in order to maximize efficiency of time and provide prompts for discussion.

During the 2020 reporting period, LNG Canada, together with JFJV, convened four virtual quarterly SMR meetings to review Project data and socio-economic monitoring trends, and to gather feedback and better understand the experiences of the communities. Meetings took place on May 5, 2020 (to review Q1 2020), September 15-16, 2020 (to review Q2 2020), December 8, 2020 (to review Q3 2020), and February 23–24, 2021 (to review Q4 2020). Working groups discussed the following community level infrastructure and service areas: Housing & Accommodations (quarterly); Community Health (quarterly); Traffic and Emergency Response (quarterly); and Community Amenities, Education and Utilities (semi-annually).

Monthly Project data from SMPs was provided alongside Project construction and workforce updates. To complement this, community monitoring data was collected from external parties and analyzed. A pre-read package with available internal and external data was shared with participants ahead of each SMR meeting to facilitate data review. Working group feedback along with available monitoring data was used to help the Project understand if its efforts to mitigate direct effects on infrastructure and services were effective and if adaptive management was required. At each working group, several actions and discussion items were identified and assigned to the participants (i.e., Project Team, provincial and federal agencies, local and regional governments, and Indigenous communities). Feedback from the SMR meetings was captured and presented in the quarterly reports, along with actions and summary of data trends. Quarterly reports were sent to all participants and posted on the LNG Canada website.

A summary of SMR action items and their status can be found in Appendix C of this report.

Due to the COVID-19 pandemic, meetings were conducted virtually over Skype for Business or Microsoft Teams. Meetings were facilitated by professional facilitators retained by the LNG Canada team, who also summarized feedback from the meetings.

2.3. Mitigation Effectiveness and Adaptive Management

The effectiveness of mitigation measures was evaluated in several ways. First, where applicable, Project reporting data was compared with community reporting data to estimate the Project's direct contribution to the change in value of a community metric. For example, the percentage of commercial flight passengers directly attributed to the Project was estimated by dividing the number of Project workers on commercial flights at Northwest Regional Airport (YXT) within a quarter with the total number of commercial flight passengers at YXT for that quarter. If, through this calculation, it was determined that the Project was either not directly contributing to a quantitative change in a community indicator, or contributing a very small proportion of a change, the mitigation measures were considered to be likely effective. The Project team also considered feedback received during the SMR meetings, and from the community feedback process to identify potential Project impacts and suggested mitigation measures. Adaptive management measures implemented by the Project are identified within each SMP report.



2.4. Reporting

Quarterly CLISMP summary reports were prepared after each SMR meeting. These summaries provide an overview of Project activities during the reporting period, including an update of construction activities, workforce data, summary of community engagements, and Project-specific metrics from across all SMPs. Quarterly reports also included community monitoring data, measured trends, and anecdotal feedback to help the Project assess effectiveness of its SMPs. These reports also summarize the discussion from SMR working group meetings and include follow-up actions and completion status, along with follow up items for BC Government discussion to capture complex topics raised during the meeting that go beyond the Project's direct influence. LNG Canada distributed the quarterly reports to SMR participants and provides the reports on its website at: <https://www.lngcanada.ca/about-lng-canada/environmental-compliance-reporting>.

This annual report has been prepared in accordance with requirements of Condition #14 of LNG Canada's EAC and the LNG Canada CLISMP (June 2016).



3. Project Information

Phase 1 of the Project, which includes the construction of two LNG trains and the marine terminal, is anticipated to take approximately five years to complete. Between 2019 and 2021, Project construction will focus on site preparation, construction of the Cedar Valley Lodge (worker accommodation) and the marine terminal. Major construction will commence in 2022 and will involve assembly of the LNG plant and associated components.

In 2020 the Project undertook the following construction activities:

Completed Scopes of Work in 2020:

- Minette Bay North Large Woody Debris removal
- Kitimat River Side Channel North and Beaver Creek diversion
- Site preparation (stripping, excavation and backfill to rough grade)
- 3 km Module Haul Road
- Anderson and Moore Creek Bridges

Notable 2020 Construction Progress Milestones:

- Concrete pour and foundations – 35,000 m³ poured
- Cedar Valley Lodge – first 3,000 beds
- LNG Tank – foundation concrete and first wall lift completed
- Piling – 6,400 piles driven ~80% complete

Ongoing Scopes of Work continuing into 2021:

- Cedar Valley Lodge (4,500 bed capacity with recreational facilities) **to be completed by Q2 2021**
- Materials Offloading Facility **to be completed by Q2 2021**
- Piling program **to be completed by Q2 2021**
- Minette Bay Salt Marsh activities
- Wharf construction and marine construction at Terminal A Extension (Rio Tinto)
- 3rd Dredging season (commenced October 2020)
- LNG Tank
- LNG Berth
- Non-process Buildings and Admin area
- River water intake
- Perimeter bund wall
- Concrete foundations / pile caps
- Underground piping and electrical
- 24-hr hauling of aggregate materials to site

Joint venture companies



- Receiving construction materials via marine transport
- Road transport deliveries for construction and operation of Cedar Valley Lodge; concrete deliveries

MAJOR CONSTRUCTION MILESTONE:

On July 22, 2020 LNG Canada's on-site worker accommodation centre Cedar Valley Lodge opened its doors to its first few hundred residents. Recreational facilities will come online later than planned due to schedule impacts of COVID-19. Cedar Valley Lodge gradually increased its capacity over the remainder of 2020 and will continue to increase into 2021 when 4,500 beds will be available for the workforce.

Cedar Valley Lodge is designed to be self-sufficient and offers a complete array of amenities and services in one location—including on-site healthcare, high quality dining, a recreation facility, retail area, games room, lounge, and movie theatre—thus reducing potential strain on Kitimat's resources as well as worker interactions with the community.

During the month of December 2020, the LNG Canada Project began its annual ramp down for the holidays, with a limited set of activities continuing at the Kitimat site from December 23, 2020 to January 3, 2021 including marine scopes progressing through environmentally sensitive windows, safety, security, environment, and site-wide services (snow clearing, waste management). A gradual restart resumed in January 2021 in line with COVID-19 Public Health Orders as outlined in the next two sections.

Additional information on LNG Canada's 2020 construction activities is available at: <https://www.lngcanada.ca/construction/construction-updates/>. Construction updates by JFJV are available at: <https://jfvkitimat.com/category/construction/>.



Figure 3-1 Moore Creek & Anderson Creek Bridges (Q4 2020)

Joint venture companies



Figure 3-2 Minette Bay Salt March (Q4 2020)



Figure 3-3 Cedar Valley Lodge (Q4 2020)

Joint venture companies



Figure 3-4 Quay Wall at the Berth (Q4 2020)



Figure 3-5 LNG Tank (Q4 2020)



3.1. Workforce

Analyzing the direct effects of the Project workforce on community infrastructure and services focuses on the temporary increase in population due to non-local workers lodged in the Kitimat-Terrace area. The Project requires all contractors and sub-contractors to follow a local hire first policy to help limit the number of non-local workers required. Figure 3-6 shows the number of workers hired from the local area⁵, Project employees who have been temporarily relocated to Kitimat, as well as the peak number of non-local workers residing temporarily in dedicated workforce accommodations. Following initial efforts in early 2020 to increase the workforce, in March the LNG Canada Project responded to the emerging COVID-19 situation by drastically reducing its workforce in Kitimat to focus on essential activities. A reduced workforce continued through to May 2020, followed by a steady increase in workforce numbers. The number of local workers increased from 318 persons in March 2020 to a peak of 811 persons in August 2020. Non-local worker numbers (monthly peak) increased from approximately 677 persons in April 2020 to 2,427 persons in November 2020.

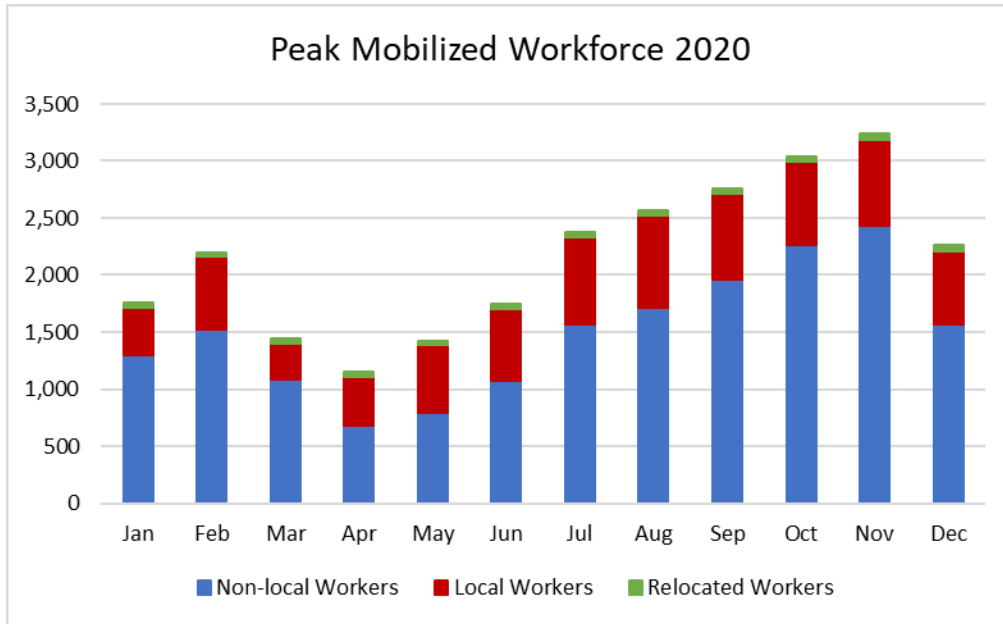


Figure 3-6 Peak Mobilized Project Workforce, 2020 Q1–Q4

⁵ Local workforce consists of workers at the Project site employed by LNG Canada, JFJV, contractors or subcontractors who are residents from the local area and who commute daily.



The peak number of people employed to work for the Project in Kitimat during 2020 was 4,105 people in the month of November. This total employed workforce is higher than the total number of workers at the job site each day, as it includes local and non-local workers on rotation in Kitimat, along with workers currently off rotation and newly hired workers mobilizing to site. For the same period, a peak population of 2,427 non-local workers were staying in open lodge accommodations in Kitimat or on-site at Cedar Valley Lodge, while a peak of 811 workers from local communities were employed by the Project in August, commuting daily from their local area residences. The Project has a limited number of employees and families who have been relocated to Kitimat. A peak of 54 temporarily relocated employees (related to specific Project scopes of work) were residing in Kitimat in November 2020 and were accompanied by 25 school-aged children.

3.2. Project COVID-19 Response

During March 2020, the Project stood up an Incident Management Team to assess and respond to the recently declared COVID-19 pandemic with a core focus on protecting the health, safety and well-being of First Nations and residents in surrounding communities, and the workforce at site. Throughout 2020 the Project continued to adapt its activities and enhance procedures and protocols to reduce the risk of infection in the workplace and to support the needs of surrounding communities. Efforts in 2020 included:

- Continuous enhancement of COVID-19 protocols on site and at workforce accommodations.
- Additional resources and equipment to manage COVID-19 prevention and care, including increased staffing of medical professionals and increased supplies of medical grade oxygen.
- Adherence to [Orders from Provincial Health Officer](#), including the [Industrial Projects Restart](#) order.
- Adherence to [Industrial Camp Guidance \(BC Centre for Disease Control\)](#)
- Adherence to [safe construction worksite requirements \(WorkSafeBC\)](#)
- Frequent communication with regulators, Northern Health, stakeholders, and communities
- Participation in District of Kitimat COVID-19 Emergency Operations Committee
- Participation in Kitimat Economic Recovery Task Force
- Policy restricting all non-local Project workers from leaving the Project site, and other work areas, or visiting any public establishments when they are on rotation in Kitimat (with the exception of medical emergencies or critical appointments). Social gatherings among Project workers prohibited.
- Community contributions to support the local COVID-19 response.

Joint venture companies



LNG Canada made a \$500K contribution to support Community COVID-19 response:

- Northern Health testing & diagnostics
- Coast Mountains School District 82 virtual learning (100 laptops)
- Indigenous Communities food security and mental health program support
- Social Service Agencies (food security, fuel costs, PPE)
- Frontline Workers recognition / small business support (1,100 gift cards distributed)
- Foodbank employee donation matching

From November 29, 2020 to January 11, 2021, the LNG Canada Project experienced two COVID-19 outbreaks at the Project site with a total of 72 confirmed COVID-19 positive cases. Each outbreak triggered mobilization of a Facility Outbreak Management Team (FOMT) led by Northern Health, composed of representatives from multiple government agencies and the LNG Canada Project. The FOMT met on a daily basis at the onset of each outbreak, with a decreasing meeting frequency once the number of cases diminished and was supported with a regular cadence of related public notifications. Both outbreaks were contained with the support of Northern Health. Due to patient privacy laws, the Project is unable to comment on the patient care provided; however, all 72 individuals have fully recovered.

Efforts to contain each outbreak entailed: swabbing; Project Resource Centre (PCR) testing; contact tracing; isolation, care and treatment of COVID-19 patients, including, in rare circumstance, hospitalization. A total of 137 PCR tests were conducted in response to the outbreaks. LNG Canada worked closely with Northern Health over the duration of the outbreaks to reduce the draw on public resources and to internalize public health and health care services to the extent possible, through increased staffing of medical professionals and non-medical personal care attendants, and development of in-house protocols and capability (e.g., swabbing/sample collection and transport, Case Contact Management, increased supplies of medical grade oxygen, isolation wing in camp). Table 3-1 provides an overview of COVID-19 outbreak management efforts.



Table 3-1 LNG Canada Project Metrics – COVID-19 Management

| LNG Canada COVID-19 Outbreak Management | Outbreak #1 (Nov 19 – Dec 25) | Outbreak #2 (Dec 16 – Jan 11) |
|---|----------------------------------|----------------------------------|
| Duration | 37 days | 28 days |
| COVID positive cases | 56 cases | *16 cases |
| Case Contact Management by LNG Canada Project | 905 hours | |
| Intake Patient & Follow-up effort by LNG Canada Project | 1,405 hours | |
| COVID swab effort by LNG Canada Project | 407 hours | |
| <p>NOTES:</p> <p>Above estimates based on aggregate hours of Project medical and non-medical personnel including: COVID-19 Registered Nurse, Nurse Practitioner, Emergency Response Technicians and Site Liaison Officers during outbreak designated days.</p> <p>*Includes Outbreak #2 numbers that extended into January 2021 and beyond the Q4 2020 reporting period</p> | | |

On December 29, 2020 the Provincial Health Officer issued an Industrial Projects Restart Order, requiring five major industrial Projects in Northern British Columbia, including the LNG Canada Project, to ramp up slowly over the month of January to reduce the risk of further COVID-19 cases in the Northern Health region (the order was updated with minor adjustments to workforce numbers on January 12, 2021). The LNG Canada Project subsequently submitted a plan to Northern Health and the Provincial Health Officer outlining measures taken to safely ramp up the workforce beyond the numbers identified in the order, with approval received in early February to proceed with a staged and cautious restart.

At the time of this report, in 2021, several additional measures have been implemented by the Project to support COVID-19 prevention and management at the Kitimat worksite. These include:

- COVID-19 rapid screening program at charter hubs in Calgary, Edmonton, Vancouver, Nanaimo and Kelowna and at the Kitimat site
- Introduction of mandatory Post-Arrival Secondary Antigen Test – all workers staying at Cedar Valley Lodge are required to take a second test three days after arrival
- Implementation of Northern Health vaccine program at the Kitimat site



3.3. Strategic Social Investments

LNG Canada works closely with local municipalities, Indigenous communities and non-profit groups to partner on sustainable programs that strengthen community resilience and complement or enhance CLISMP-related Project mitigation efforts where possible. Over \$4 million has been contributed between 2013 and 2020 with efforts continuing on an annual basis that are aligned with community needs. Some examples of strategic investments and commitments include:

HOUSING & ACCOMMODATIONS

- \$250,000 funding commitment over 2019-2024 to Tamitik Status of Women and Kitimat Community Development Centre towards operational funds to support delivery of services to vulnerable groups.
- \$300,000 over 2013-2020 to Kitimat and Terrace community foundations
- \$65,000 in 2020 to support PPE, food security programs and COVID-19 adaptations for housing service providers.

COMMUNITY HEALTH

- \$250,000 in 2020 to support Northern Health regional COVID-19 preparation and response
- \$90,000 in 2020 towards Indigenous Food Security and Mental Health programs as part of COVID-19 response.
- \$100,000 in 2020 towards City of Terrace by-law and community grant writing programs
- \$200,000 commitment to support health care aid training in the Kitimat and Terrace area
- \$550,000 commitment over 2019-2021 to the Kitimat Valley Housing Society to support the construction of the Kitimat Pilot Dementia Home and to increase community awareness for dementia.

TRAFFIC

- \$100,000 in 2018-2019 towards community driver safety training, road safety awareness and school bus safety initiatives.
- \$150,000 in 2020 towards traffic light upgrades for the DOK at Lahakas and Haisla Blvd intersection.

EMERGENCY RESPONSE

- \$90,000 in 2019 to support search & rescue organizations in both Kitimat and Terrace
- \$150,000 since 2013 to support Kitimat Fire Department
- \$500,000 in 2020 towards a replacement highway emergency response vehicle for Terrace Fire Department.



COMMUNITY AMENITIES

- \$150,000 contribution and in-kind donation of Baily Bridges (\$212,000 value) in 2019 to support DOK Phase 1 Waterfront Access Park.
- \$75,000 in 2020 towards enhanced and accessible ski recreational facilities in Terrace

EDUCATION

- \$380,000 in 2019-2020 towards a range of educational programs including science enrichment through Ocean Wise / AquaVan outreach in Kitimat and Terrace schools and communities and subsidized access to summer camps for children in Kitimat.
- \$78,500 in 2020 towards laptops to support equitable access to virtual learning during COVID-19 for Coast Mountains School District 82.
- \$170,000 since 2013-2020 in annual Trades/STEM scholarships for Kitimat and Terrace high school graduates.
- \$54,000 in 2019 towards training of early childhood educators (ECE) in Kitimat-Terrace
- \$300,000 funding commitment over 2019-2021 towards Indigenous educational bursaries and professional development programs.

UTILITIES

- \$10,000 in 2020 towards cardboard recycling storage capacity expansion in Kitimat

3.4. Economic Benefits

Employment In Kitimat

LNG Canada, JFJV, subcontractors and sub-subcontractors are all required to follow a local hire first policy that evaluates qualified applicants and prioritizes hiring of Haisla members or their spouses, followed by local residents from the Kitimat-Terrace area and members of nearby First Nations Kitselas, Kitsumkalum, Gitga'at, Gitxaala, Metlakatla and Lax Kw'alaams. Next hiring priority is given to BC residents, and then Canadians more broadly.



Joint venture companies



As indicated in Section 3.1, the Project hit its peak Kitimat workforce for 2020 during the month of November, when a total of 4,105 workers were employed, including 278 Indigenous workers (~60% of whom were from the local area), 580 women, and 760 workers from the local area. The peak number of local residents employed in 2020 occurred during August when 811 local area workers were employed. The total employed workforce represents total persons employed to support work activities in Kitimat reported by LNG Canada, its contractors, subcontractors and sub-subcontractors, and is composed of local workers and non-local workers both on and off rotation as well as newly hired workers.

WORKFORCE DEVELOPMENT

At the end of 2020, LNG Canada had invested **over \$4M in workforce development programs**—meaningful trades training and development programs designed to increase the participation of local area residents, Indigenous communities and British Columbians. LNG Canada partnerships have supported training and applied work opportunities for BC residents, including:

- over 1,380 apprentices trained through the Trades Training Fund in connection with 540 employers (BC Construction Association)
- Over 350 local area residents placed on construction jobs in NW BC through the Connect Program (BC Construction Association)
- \$200,000 contributed towards removing barriers to employment by funding tools, training, clothing and gear essential for those entering the construction industry through the Gear Up Fund (BC Construction Association)
- 32 women hired onto the LNG Canada Project or into other employment opportunities after receiving introductory trades training through the YOUR PLACE program (Women Building Futures)

Attracting more women to the construction trades in BC is an important part of LNG Canada's comprehensive workforce development strategy and commitment to hiring locally and within the province. LNG Canada's YOUR PLACE program is a four-week workplace readiness training program with employment supports designed to help women start—and succeed—in the skilled trades. Graduates have a direct line to employment as an apprentice with JFJV or one of its subcontractors on the Project site in Kitimat, BC. Training is delivered in the local area, which increases accessibility to training for Indigenous groups and women in northern BC and introduces participants from other parts of the province to the realities of a fly-in-fly-out worksite. YOUR PLACE is only available to women residing in BC.

Many LNG Canada workforce development programs were paused during 2020 Q2 due to COVID-19 restrictions limiting travel, group gatherings and use of classroom facilities. Programs have resumed in 2021 in line with COVID-19 measures.



CONTRACTING & PROCUREMENT

The Project places a priority on contracting and procurement with Haisla and other Indigenous-owned businesses as well as with local area businesses. At the end of 2020, the Project had awarded contracts and procurement totaling approximately CAD \$3 billion to businesses in British Columbia. Of this amount, over CAD \$2.5 billion has been awarded to Local Area and Indigenous businesses.

CAD 2.5 billion
Local & Indigenous Contracts

MUNICIPAL CONTRIBUTIONS

In June 2020 LNG Canada paid **\$1.9 million in municipal property taxes** to the District of Kitimat (2019 tax year), three months ahead of the COVID-19 related tax payment deadline extension. LNG Canada entered into a Revitalization Tax Exemption agreement with the DOK which commenced in 2019 with a schedule of increasing payments over a 10-year term (the LNG Plant site is located on a former industrial site previously occupied by Methanex). The defined schedule will help the DOK plan for longer term needs as the payments are known ahead of time.

Working together with the DOK, in 2019 LNG Canada was successful in obtaining a \$55 million infrastructure investment from the Canadian Ministry of Finance to support the replacement of the aging Haisla Bridge in Kitimat. During 2020 early engineering and design work for the bridge replacement was underway. Construction is anticipated to start in 2021.

Additionally, workforce accommodation Lodge Operators in Kitimat, including JFJV, paid a one-time contribution of \$500 per unit towards the DOK Affordable and Accessible Housing Fund, resulting in over \$2.5 million in cumulative contributions to the DOK by the end of 2020, primarily attributed to LNG Canada Project activities.



4. Regional Overview

4.1. COVID-19 Impact

On March 11, 2020, the World Health Organization (WHO) made the assessment that COVID-19 could be characterized as a pandemic (WHO 2020). Shortly afterwards, on March 17, 2020, Dr. Bonnie Henry, the provincial health officer (PHO) in British Columbia declared a public health emergency. On March 18, 2020, the Province of British Columbia declared a state of emergency, which has been extended and is still in effect (Government of British Columbia 2020a).

Dr. Henry and Health Minister Adrian Dix confirmed the first case of COVID-19 on January 28, 2020. After the first case was recorded, another 52,882 cases were recorded in 2020 across BC's health authorities (Fraser, Interior, Northern, Vancouver Coastal, and Vancouver Island), with a daily maximum of 948 cases (on November 14, 2020) (BC CDC 2021a). In the Northern Health Authority (NHA), 2,049 cases were recorded in 2020 across all of NHA's Health Service Delivery Areas (HSDAs), with a daily maximum of 63 cases (on December 30, 2020) (BC CDC 2021a). The NHA, recorded 454 cases in 2020 in the northwest HSDA, which includes Kitimat, Stikine, and Terrace, with a daily maximum of 21 cases (on December 22, 2020) (BC CDC 2021a). The COVID-19 pandemic has disproportionately affected Indigenous communities in BC. As of December 11, 2020, COVID-19 cases from Indigenous Groups made up 37.1% of Northern Health's total COVID-19 cases while Status Indigenous peoples in the NHA only make up 16.4% of its population (BC CDC 2021a & FNHA 2021a). The COVID-19 vaccines that have been approved by Health Canada first became available in early 2021 and at-risk groups and racialized and marginalized populations, including Indigenous Groups have been prioritized to receive the vaccines as they roll out (FNHA 2021b).

The international and national response to COVID-19 in March 2020, including shutdown measures, caused a significant disruption to the economy. In Canada, employment fell by more than one million in March 2020 (-1,011,000) (Statistics Canada 2020a), which surpassed the previous record of -124,800 jobs lost in January 2009 during the 2008/2009 recession (Statistics Canada 2019). The number of Canadians who remained employed during this period but who worked less than half of their usual hours increased by 800,000 (Statistics Canada 2020a).

Federal and provincial governments issued social distancing orders or recommendations, which restricted activities of many workplaces (Statistics Canada 2020a). Government measures included states of emergency, restrictions on certain business activity, and limits on the travel of non-residents into the country (Statistics Canada 2020a). In a provincial state of emergency, the PHO can issue orders as needed (Government of British Columbia 2021). Several orders were issued by the PHO over the course of 2020 and these orders contained information on measures and restrictions implemented in response to the COVID-19 pandemic (i.e., guidance and restrictions on mass gathering, travel, food and liquor serving premises, and industrial camps) (Government of British Columbia 2021).

Joint venture companies



The continual effects of the COVID-19 pandemic and the related restrictions across British Columbia have played a significant role in the changing demand for infrastructure and services in the Kitimat-Terrace area. Many facilities and workplaces began and continue to operate at reduced capacities, resulting in suppressed demand for services, changes in employment, and overall uncertainty for many industries and communities.

In 2020, the federal government introduced several employment safety nets in response to the negative impact of COVID-19 on the Canadian labour market. On March 25, 2020, the Canadian Emergency Response Benefit (CERB) was introduced. CERB provided a taxable benefit of \$2,000 per month for a maximum of seven months to eligible workers who either stopped working or had their work hours reduced from COVID-19 (GOC 2020). Other safety nets included the Canada Emergency Business Account (CEBA), and the Canada Emergency Wage Subsidy (CEWS). CEBA provided interest-free loans up to \$40,000 to small businesses and not-for-profit organizations to cover their operating costs during COVID-19, while the CEWS covered a portion of employee wages to rehire and avoid layoffs from the economic downturn (GOC 2020).

As part of its \$5 billion COVID-19 Action Plan, the BC government also introduced financial supports in 2020 for critical services ranging from health care response measures to rent assistance programs to housing and other supports for vulnerable populations. Additionally, in 2020 Q4 the BC government contributed funds directly to local and regional governments to support COVID-19 Safe Restart with approximately \$2.2 million distributed to the District of Kitimat, \$559,000 distributed to the RDKS, and \$2.7 million distributed to the City of Terrace to help local governments offset lost revenues and support capital projects.

4.2. Regional Development

Kitimat is currently in a period of rapid growth and has experienced a resurgence in industrial development activities. Major projects currently underway include the Rio Tinto Kemano T2 Project, the LNG Canada Project, the Coastal GasLink (CGL) Project. Other potential project developments such as Kitimat LNG and Pacific Trail Pipeline, Cedar LNG, Pacific Traverse Energy, Kitimat Clean, and Pacific Future Energy Refinery Projects have been proposed (DOK 2021a) along with the NSD Development Corporation/Progressive Ventures Inland Port in Terrace. There are also many publicly funded infrastructure projects in the region, such as the Mills Memorial Hospital Replacement Project in Terrace, which will feature a new, approximately 26,400 square-metres acute care hospital and integrated services facility, with construction to commence in 2021 (Infrastructure BC 2021 & Northern Health 2021a). The Haisla Bridge replacement project in Kitimat will also begin construction in 2021.

The City of Terrace reported a 4.3% unemployment rate in 2019, which was 1.4% under the 2019 unemployment rate in Canada (COT 2021a & Statistics Canada 2021). Although the City of Terrace (COT) has not yet reported its unemployment rate for 2020, Canada reported a 9.5% increase, an increase likely due to the impact of the COVID-19 pandemic (Statistics Canada 2021). The relatively low unemployment rate in the COT is indicative of the overall increase in economic opportunities and development in the region.

Joint venture companies



In 2019 the BC government introduced the Northern Capital and Planning Grant to help address infrastructure needs as Northern BC communities prepared for major resource and economic development (BC Gov News 2020a). Between 2019 and 2020, \$150 million was distributed directly to four regional districts (Fraser-Fort George, Bulkley-Nechako, Kitimat-Stikine and North Coast) and their 22 participating municipalities (BC Gov News 2020a). The District of Kitimat received \$1.56 million in 2019 and \$5.2 million in 2020; the Regional District of Kitimat-Stikine received \$4.64 million in 2019 and \$1.36 million in 2020; while the City of Terrace received \$8.2 million in 2019 and \$6.53 million in 2020 (BC Gov News 2020a).

4.3. 2020 Population

Over the 2001 to 2016 period, the population of the Kitimat area declined by 20% from 10,796 in 2001 to 8,656 in 2016 (Figure 4-1). Over the same period, the Terrace area population experienced a 6% decline from 16,659 in 2001 to 15,723 in 2016 (Figure 4-2). Recent trends show an upward trend in Terrace area population, evidenced by a 1% growth rate from 2006 to 2011 and a 2% increase from 2011 to 2016.

Population metrics are derived from Census data which reflects the permanent resident population of an area. However, the overall populations of Terrace, Kitimat, and surrounding communities is comprised of permanent residents, visitors, and individuals who are temporarily residing in the area for employment. Because the capacity of community infrastructure and service providers is typically sized and funded to match the residential population, a sudden increase in the population in an area can result in a strain on such providers.

The Census, last undertaken in 2016, provides the most accurate measure of the permanent population within the region. The 2016 Census population for the Kitimat region⁶ was 8,656 persons, while the Census population of the of Terrace area⁷ was 15,723 persons. As the Census is now nearly five years old, the current populations of the Kitimat and Terrace areas were likely different in 2020 compared to the Census year due to a combination of natural population change (births minus deaths) and net migration (in-migrants minus out-migrants). By applying such assumptions, the BC Stats P.E.O.P.L.E model forecasted a 1.7% increase in the Kitimat Health Areas population from 2016 to 2020, and a 1% increase in the Terrace Health Area (BC Stats 2021).

To estimate the total population within the Kitimat and Terrace Regions for 2020, the following populations were added to the Census 2016 counts:

- Change in permanent population based on P.E.O.P.L.E. model forecast
- Average number of occupants at worker accommodations
- Estimated number of visitors based on hotel, motel, and Airbnb occupancy

⁶ Kitimat Area Permanent Population (2016 Census) includes Census subdivisions: DM of Kitimat and Kitimaat IR No. 2 (Statistics Canada 2017).

⁷ Terrace Area Permanent Population (2016 Census) includes Terrace Census Agglomeration Area (Kulspai IR No. 6, Kitimat-Stikine E, and City of Terrace), Kitselas IR No. 1, and Kitsumkaylum IR No. 1 (Statistics Canada 2017). Kitimat-Stikine E includes the community of Thornhill.

Joint venture companies



- Estimated Terrace shadow population from City of Terrace 2015 and 2020 surveys⁸

The above assumptions likely underestimate the true magnitude of population change in Kitimat or Terrace because they do not account for: (i) persons who have recently moved in the area and have taken up rental accommodations or purchased a home, (ii) temporary non-local workers for industry who may be renting a residential property, and (iii) persons who have recently moved into the region and are temporarily staying with friends or family (beyond those captured in Terrace's 2015 shadow population survey).

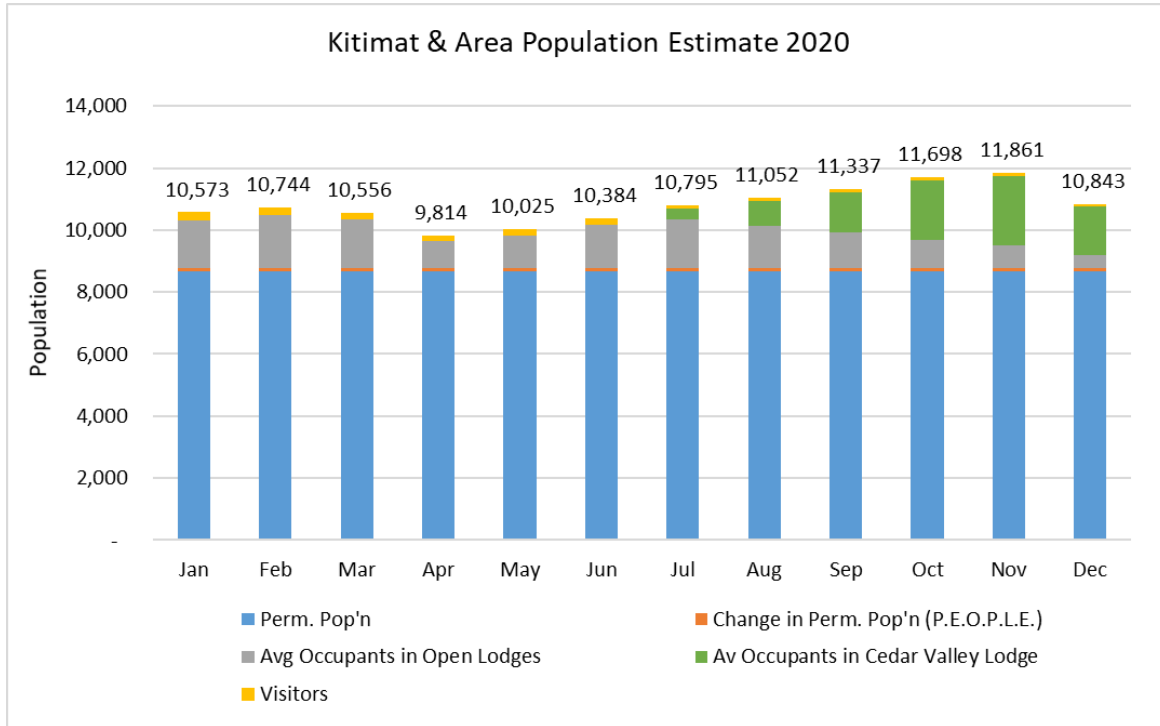
Kitimat

Figure 4-1 shows the estimated temporary and permanent population for Kitimat⁹ in 2020. The permanent population is based on the 2016 Census, updated with estimates from the BC Stats P.E.O.P.L.E model. Open lodge population includes Civeo and Horizon North facilities guests and staff. Cedar Valley Lodge occupants are tabulated separately. "Other" temporary population includes hotels, motels, and Airbnb occupants.

- Kitimat's estimated population peaked in November 2020 at 11,861 persons (3,085 temporary persons, 26% of total population)
- On average, Kitimat's temporary population was 19% of the total population in 2020
- From January to June 2020, Kitimat's temporary population decreased by 11%
- From July to December 2020, Kitimat's temporary population increased by 2%

⁸ The shadow population is defined as persons who spend a significant amount of time in one area but maintain their primary residence in another area.

⁹ Kitimat communities include DM of Kitimat and Kitamaat IR No. 2 (Kitamaat Village).



NOTES: Permanent Population (2016 Census) includes Census subdivisions: DM (District Municipality) of Kitimat and Kitimaat IR No. 2.
 *Average occupants in open lodges include Sitka Lodge, Sitka Annex 2, and Crossroads Lodge occupants (Civeo 2021 and Horizon North 2021).
 *Visitors includes hotels, motels, and Airbnb occupants (BRA and Stantec 2021).
 SOURCES: Statistics Canada 2017; STR Global 2020; Civeo 2021; Horizon North 2021; BRA and Stantec 2021; BC Stats 2021

Figure 4-1 Kitimat & Area Population Estimate, 2020 Q1-Q4

Terrace

Figure 4-2 shows the estimated temporary and permanent population for the City of Terrace and surrounding communities¹⁰ in 2020. Throughout 2020, the estimated population in the Terrace area was relatively stable, with monthly fluctuations resulting from change in visitor populations. Due to the nature of industry jobs in the region and its position as the major service provider, Terrace receives “spillover” of jobs created in Kitimat, Prince Rupert, and mines located close to Terrace (BRA 2015). Terrace’s shadow population is assumed to remain in Terrace only during project construction phases and are not considered part of the permanent population.

¹⁰ Terrace communities include Terrace Census Agglomeration Area (Kulspai IR No. 6, Kitimat-Stikine E, City of Terrace), Kitimat-Stikine C, and Kitselas IR No. 1 and Kitsumkaylum IR No. 1.

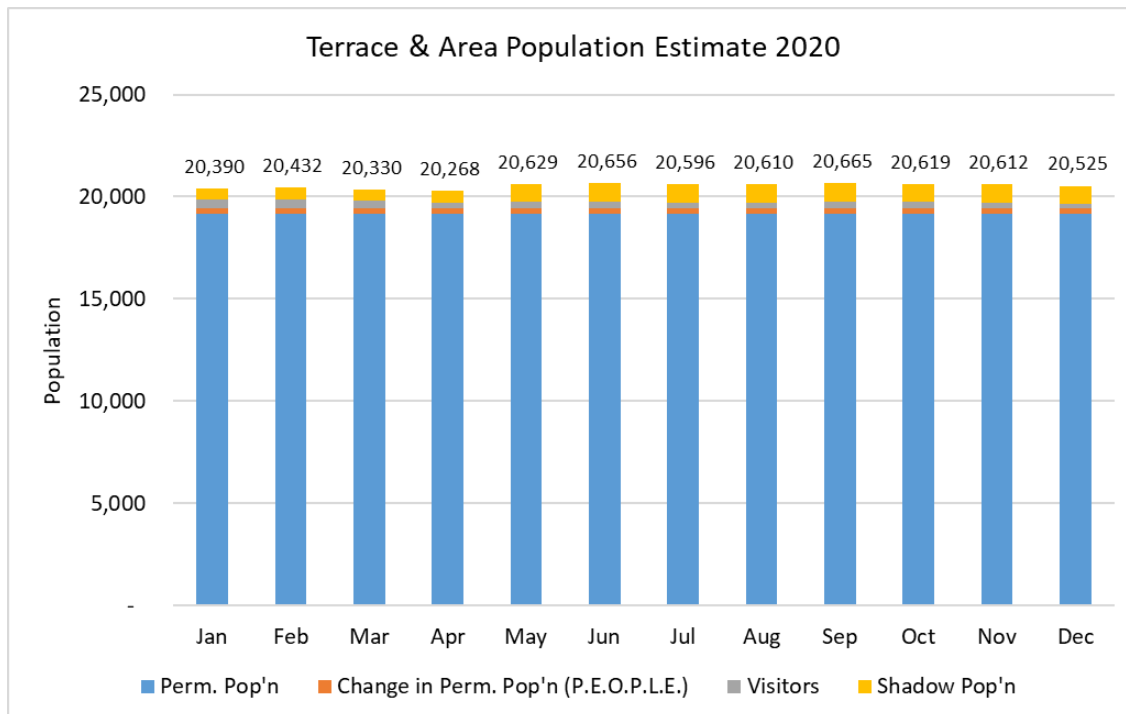
Joint venture companies



However, the shadow population may temporarily contribute to growth indicators such as availability and cost of rental accommodations.

- Terrace area population was 20,528 persons on average in 2020
- The estimated population peaked at 20,665 persons in September 2020 (1,229 temporary persons, approximately 6% of total population)
- The shadow population in Terrace was previously estimated at 546 persons (based on the 2015 Terrace population survey [BRA 2015]). This estimate decreased to 471 persons as of May 1, 2020 based on the 2020 Terrace population survey (BRA 2020a). When considering Greater Terrace (includes RDKS Electoral areas C and E), the shadow population estimate increased to 886 persons as of May 1, 2020.
- From January to June 2020, Terrace's temporary population increased by 28%
- From July to December 2020, Terrace's temporary population decreased by 6%
- The 2020 Terrace Homeless Count was delayed due to the pandemic; however, the last count in 2019 was 71 persons which was a 26% drop compared to 2018 (COT 2018a, COT 2019).

Joint venture companies



NOTES: Terrace Area Permanent Population (2016 Census) includes Terrace Census Agglomeration Area (Kulspai IR No. 6, Kitimat-Stikine E, and City of Terrace), Kitselas IR No. 1, and Kitsumkaylum IR No. 1 (Statistics Canada 2017).

*Shadow¹¹ population from 2020 City of Terrace Population Survey for the City of Terrace and RDKS Electoral Areas C and E (BRA 2020a). Includes both "Soft Shadow"¹² and "Hard Shadow"¹³ population as of May 1, 2020.

*Visitors include hotels, motels, and Airbnb occupants (BRA and Stantec 2021).

SOURCES: Statistics Canada 2017; STR Global 2020; BRA and Stantec 2021; BRA 2020a, BC Stats 2021

Figure 4-2 Terrace & Area Population Estimate, 2020 Q1-Q4

¹¹ Shadow population (as defined in the COT Population Survey) is assumed to only be in Terrace and the RDKS for the duration of their employment and as such, a single person is added to Terrace's population per job. In 2020, there was an estimated additional 886 shadow population in Terrace and the RDKS (Mean Confidence Limit) as of May 1, 2020, of which, 231 have worked 30 or more days in Terrace and the RDKS area in the past year (BRA 2020a).

¹² "Soft Shadow" population consists of people who are living or staying in Terrace and the RDKS, who have a usual residence elsewhere who have not worked 30 or more days in the greater City of Terrace area in the past year (BRA 2020a).

¹³ "Hard Shadow" population consists of people who are living or staying in Terrace and the RDKS, who have a usual residence elsewhere, and who have worked 30 or more days in the greater City of Terrace area in the past year (BRA 2020a).

5. SMP Report—Housing, Accommodations and Childcare

5.1. Introduction

The Housing and Accommodations SMP identifies actions to manage project-related direct effects on the availability and affordability of housing on the District of Kitimat, City of Terrace, and nearby Indigenous communities. The plan also identifies actions to manage the potential for increased demand for temporary accommodations such as hotels, motels, and campsites from the in-migration of project workforces. The objectives of the plan are to:

- Reduce the potential for the project workforce to displace local residents or visitors from using temporary accommodations, or accessing rental opportunities or home ownership
- Minimize project-related effects on individuals and families who depend on affordable housing
- Engage with stakeholders and Indigenous groups to provide a responsive framework in which they can raise concerns with LNG Canada

Appendix A provides a list of stakeholders who participated in the Housing and Accommodations working group meetings, including virtual participants.

5.2. Context

Beginning in March 2020, after COVID-19 was declared a pandemic by the WHO, the negative impact on the economy had a significant influence on the housing and rental markets. In response to the COVID-19 pandemic, the six major Canadian banks—Bank of Montreal, CIBC, National Bank of Canada, RBC Royal Bank, Scotiabank, and TD Bank—announced new measures to support Canadians facing financial insecurity due to COVID-19, including up to a six-month mortgage payment deferral (CBA 2021). As mentioned in Section 4.1, as part of the province's \$5 billion action plan, BC Housing also introduced the BC Temporary Rental Supplement Program, which provided tenants and landlords with temporary support towards rent payments for renters impacted by COVID-19 (BC Housing 2021a). The program ran from April to August 2020 and provided a temporary rental supplement of \$300 per month for eligible households with no dependents and \$500 per month for eligible households with dependents (BC Housing 2021a). The BC Government also implemented a ban on issuing evictions for non-payment of rent, which ended on August 18, 2020. Renters in arrears for rent due between March 18 and August 17, 2020 will have until at least July 2021 to pay any rent owed.

The ability of Canadians to withstand the economic hardship associated with COVID-19 depends on a number of factors including their family earning ability and their living arrangements (Statistics Canada 2020a). Employment losses in March 2020 affected a range of family types. In couple families, one or both partners may have lost their job (Statistics Canada 2020a), which had an influence on their financial decisions. Due to directives to socially isolate at home, a number of Canadians living alone or with non-relatives in 2020 also had to decide whether to self-isolate by themselves or move in with family members. In Canada, the total number of unattached individuals decreased by 128,000 from 2019 to 2020 and the number of lone parents decreased by 38,000 over the same period (Statistics Canada 2020a).

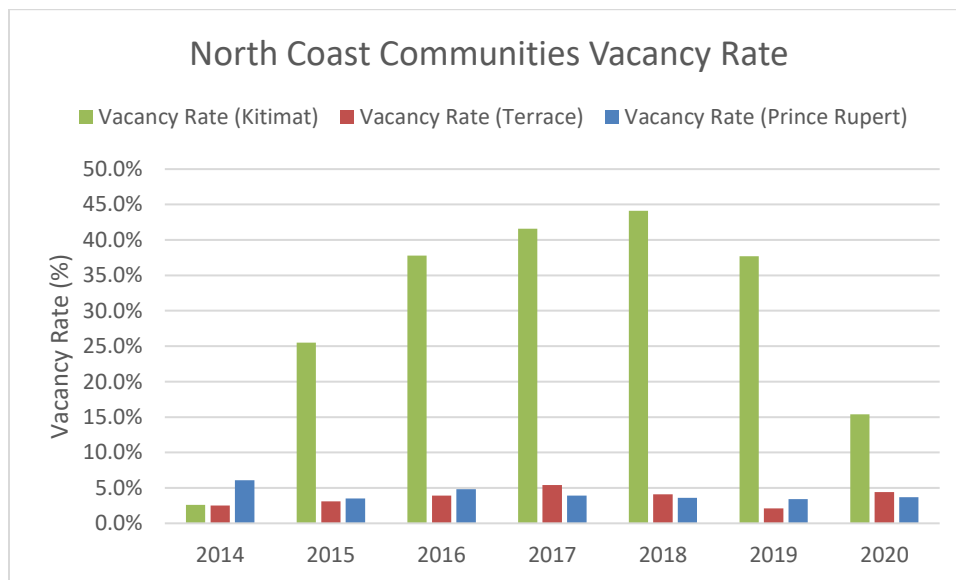


The overall housing stock supply in Canada remains low and sales remain elevated relative to new listings. There is currently evidence of the housing market overheating at the national level (CMHC 2021a). Due to low mortgage rates and high savings rates, triggered by the COVID-19 pandemic, and the resilience of income for more affluent households, sales and prices were elevated. In 2020, home prices have risen 30% with suburbs, smaller cities, and rural areas leading the increase (FEA 2021). The pandemic created a surge in demand for lower density homes in suburban and smaller communities. The short-term impacts of the pandemic led to an increase in the proportion of unoccupied rentals in many regions (CMHC 2021a).

BC Housing is working with regional health authorities, municipal partners, experienced non-profit shelter and housing providers to develop community-based response plans to the COVID-19 outbreak, including identifying locations where vulnerable individuals (e.g., those experiencing or at-risk of experiencing homelessness) would be able to self-isolate (BC Housing 2021b). One site (with two spaces) was secured in Kitimat and two sites (with seven spaces) were secured in Terrace (BC Housing 2021b). BC Housing has not disclosed the site locations in order to ensure that these facilities could operate privately and focus on helping the people that need a safe place to self-isolate (BC Housing 2021b).

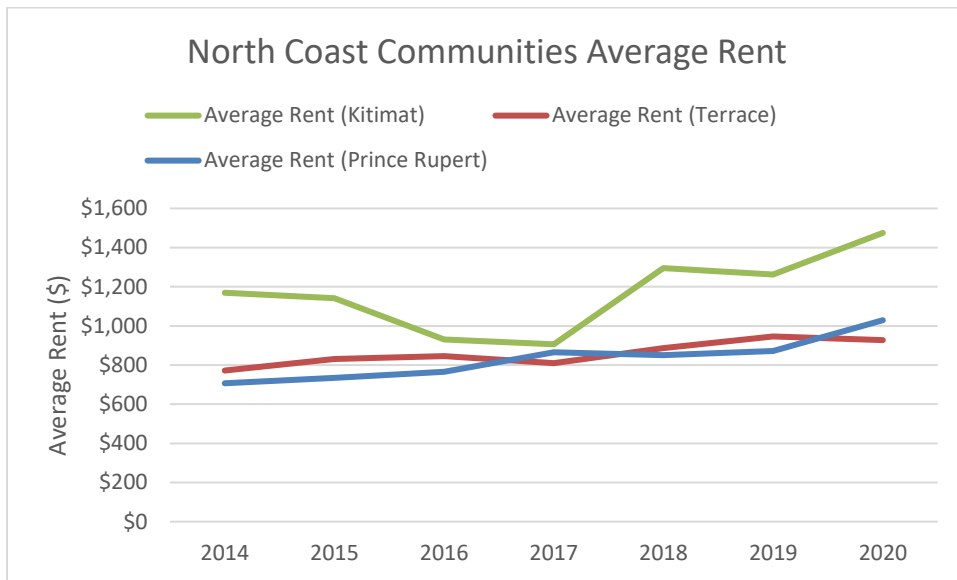
Rental Housing

The Canadian Mortgage and Housing Corporation (CMHC) 2020 fall Rental Market Survey reported a continual increase in the estimated average rent rates for both communities, particularly in Terrace. The initial 43% increase in the average cost of rental accommodations in Kitimat reported in the CMHC 2019 Rental Market Survey coincided with the announcement of LNG Canada’s FID in October 2018 (Figure 5-1 & Figure 5-2).



SOURCE: CMHC 2020a & CMHC 2020b

Figure 5-1 Vacancy Rate for North Coast Communities



SOURCE: CMHC 2020a & CMHC 2020b

Figure 5-2 Average Rent for North Coast Communities

In 2020, Kitimat’s surveyed vacancy rate dropped below 35% for the first time since 2016, reported at 15% in October 2020 (CMHC 2020b). This is thought to be because a substantial proportion of the rental stock had previously been taken off the market, including some units that were not in a rentable state and some units that were being renovated, while others were being reserved or possibly supply-managed by landlords, resulting in an effective vacancy rate that was much lower than estimated by the CMHC survey.

The average cost of rental accommodation in Kitimat over time is also correlated with periods of actual or anticipated periods of industrial development (LNG Canada 2020a). Some employers paid Living Out Allowances (LOAs) and the resulting competition for rental housing contributed to the “renoviction” phenomenon, in which some tenants were evicted from their homes to enable landlords to refurbish and then rent out the unit to construction workers at substantially higher rates (Orr 2014). While the average rent in Kitimat did not increase in Kitimat from 2018 to 2019, it did increase 16.8% from 2019 to 2020 (CMHC 2020b & CMHC 2020c).

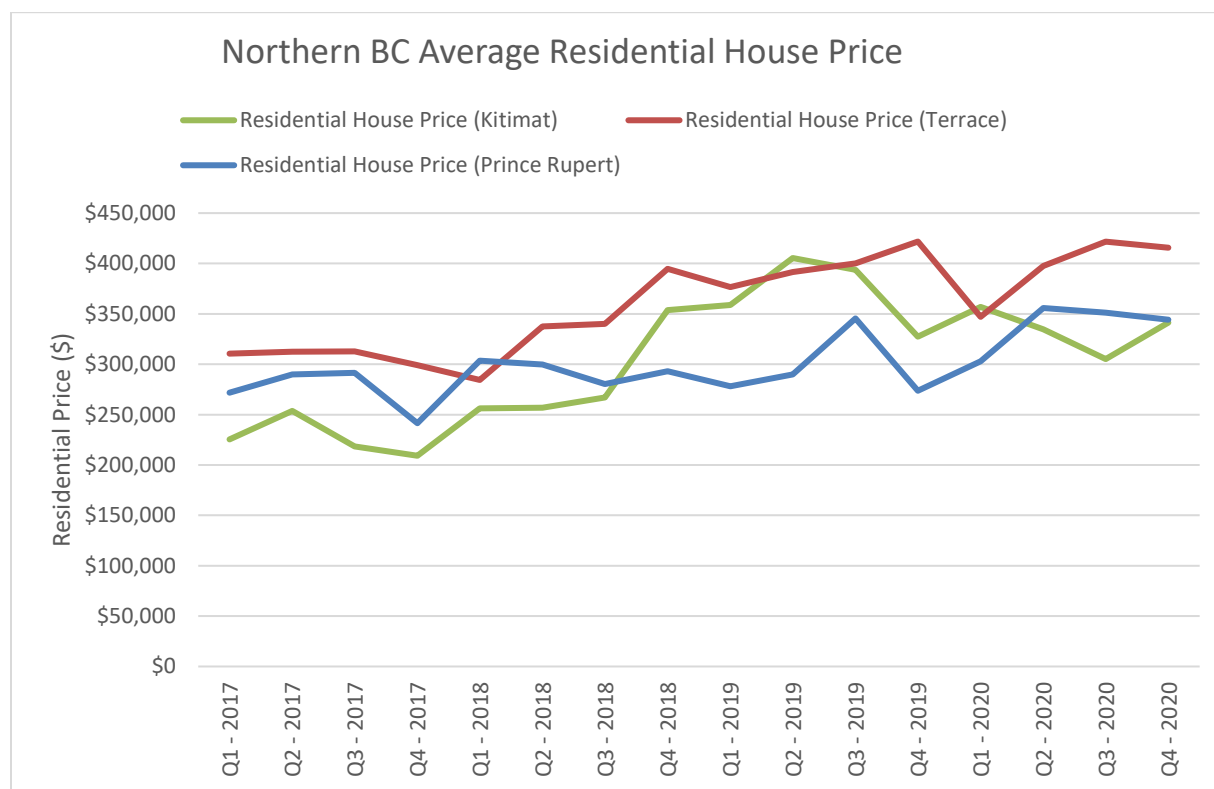
Like Kitimat, Terrace’s rental housing market has been influenced by patterns of regional development activity (LNG Canada 2020a). Rental vacancy rates in Terrace reached 5.4% in 2017, before dropping to 2% in 2019, correlating with the recent industrial development activity occurring in the region (CMHC 2020a). Rental vacancy rates in Terrace have increased slightly from 2.1% in 2019 to 4.4% in 2020 (CMHC 2020a). The average rent in Terrace did not increase from 2019 to 2020 (CMHC 2020a).



Overall fluctuations in Terrace’s rental housing market in terms of price and vacancy rates have been less compared to Kitimat, possibly because of Terrace’s more stable permanent population, and because temporary construction workforces likely comprise a smaller proportion of its population as indicated with the recent shadow population study.

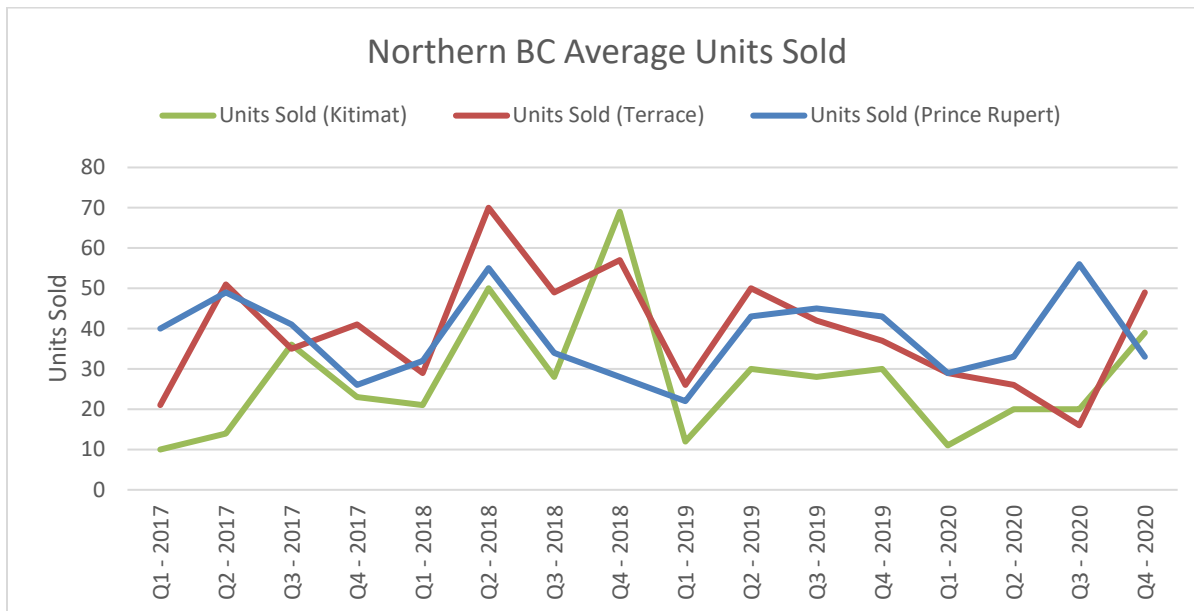
Market Housing

In Kitimat, housing prices experienced a nearly 42% increase from 2018 to 2019, reaching a high of \$405,399 in Q2 2019, suggesting that LNG Canada’s positive FID could have influenced Kitimat’s housing market (DOK 2020a). In 2020, the residential housing prices in Kitimat and Terrace were flat or declining (Figure 5-3). Housing sales in Kitimat and Terrace were generally lower in 2020 compared to 2019, with the exception of the fourth quarter (Figure 5-4).



SOURCE: BCNREB 2021a

Figure 5-3 Average House Price for North Coast Communities



SOURCE: BCNREB 2021a

Figure 5-4 Average Units Sold for North Coast Communities

Housing Affordability Index

In Kitimat and Terrace, the Housing Affordability Indicator^{14,15} (HAI) has increased every year since 2017. HAI calculation considers both income and costs—the BC Northern Real Estate Board (BCNREB) HAI estimates the proportion of median household income required to cover costs associated with home ownership for homes purchased in a particular year (BCNREB 2021b). Communities with a high median family income, such as Kitimat, will reflect a lower, more affordable HAI (BCNREB 2021b), which can mask the affordability challenges faced by residents earning below the median family income.

In Kitimat, the HAI was 24.9% as of 2019—an increase of 9.2 percentage points over the three-year period, primarily driven by higher housing prices (BCNREB 2020). In Terrace, the HAI was 33.6%—an increase of 6.6 percentage points over the same period (BCNREB 2020). The 2019 HAI in Kitimat was 2.6 percentage points lower than for all Northern BC (24.9% and 27.4%, respectively) while the HAI in Terrace was 6.6 percentage points higher than for all Northern BC (BCNREB 2020). The 2020 HAI for Northern BC was 26.1%, a 1.3 percentage point decrease over the 2019 HAI.

¹⁴ The BC Northern Real Estate Board (BCNREB) Housing Affordability Indicator estimates the proportion of median household income required to cover the major costs associated with home ownership (BCNREB 2020). These include mortgage costs, municipal taxes and fees, and utilities for the average single-family home (BCNREB 2020). The higher the measure, the more difficult it is to afford a home (BCNREB 2020).

¹⁵ 2020 Indicator: Percent of median household income needed to finance home ownership (BCNREB 2020).



The affordability of home ownership in Northern BC is favourable when compared with HAI of 103.3% for the Vancouver area (BCNREB 2021b).

Terrace Homeless Count

Since 2014, the City of Terrace has undertaken an annual count of its homeless population. The count, which is done over a single 24-hour period in the spring, focuses on the visibly homeless, and includes individuals who are currently sheltered, as well as those who are unsheltered (BC Housing 2019). The City of Terrace did not undertake an annual count in 2020 due to COVID-19. The next annual count will likely occur in the spring of 2021. Information on previous counts (2014-2019) can be found in the 2019 CLISMP Annual Report (LNG Canada 2020a).

Affordable and Available Housing

Both Kitimat and Terrace have experienced previous periods of heightened economic development activity that have resulted in housing market changes, affecting housing affordability and availability, and increasing demand for social housing and support services. Several initiatives have targeted the evolving housing needs and/or anticipate and address potential adverse effects to housing in Kitimat and Terrace resulting from industrial developments. Some examples include:

- 52 supportive housing units and 45 low income housing units were added in Terrace in June 2019 through the collaborative efforts of Terrace housing service providers, BC Housing and the City of Terrace (LNG Canada 2020a).
- In addition, several affordable housing projects have been initiated or are under development, including 23 seniors units provided by Haisla First Nation in Kitimaat Village, 42 units for vulnerable women provided by Tamitik Status of Women in Kitimat, 10 special needs units by Kitimat Valley Housing Society in Kitimat, 48 low income units provided by M'akola Housing Society in Terrace, and 22 second stage housing units provided by Ksan society in Terrace (BC Housing 2020 and BC Housing 2021c).
- The District of Kitimat's Affordable and Accessible Housing Fund collects a one-time contribution of \$500 per unit for workforce accommodations centre operators in Kitimat. It is expected to generate over \$3.2 million in cumulative contributions from Sitka Lodge, Annex 2, Crossroads Lodge, and LNG Canada's Cedar Valley Lodge by 2021 Q2 to help support Kitimat's affordable and social housing needs such as the TSW Housing Project (TSW 2020).

Municipal Housing Needs Assessments

The Province has established new requirements for local governments to produce updated housing needs reports by April 2022. The DOK conducted its Housing Needs Assessment during 2019 and the completed Housing Action Plan and Needs Assessment was published in March 2020 (DOK 2020a) (see District of Kitimat Housing Action Plan and Needs Assessment). Both COT and RDKS received funding in early 2020 to collect and analyze data on local housing needs and the Greater Terrace Housing Needs Report was published in December 2020 (COT & RDKS 2020) (see Greater Terrace Housing Needs Report).



Key Findings from the District of Kitimat Housing Action Plan and Needs Assessment (DOK 2020a):

- The population of Kitimat declined at an annual rate of 1% from 2006 to 2016 but is projected to increase 2.1% annually and remain relatively constant in terms of age group distribution (with slight decreases to the 25–64 age group and slight increases to the 65–84 age group) between 2006 to 2016. Stakeholders have identified a need for additional senior-oriented housing in the community.
- Due to rent increase, stakeholders indicated vulnerable residents are particularly challenged to afford the average price of rental housing. Stakeholders indicated youth are challenged to afford rental housing as there are incidents of hidden homelessness (e.g., couch surfing).
- The number of households on BC Housing's waitlist have increased, which demonstrates a mismatch between what is available and what is affordable.

Key Findings from the Greater Terrace Housing Needs Report (COT & RDKS 2020):

- The population of the Greater Terrace area grew 4% from 2006 to 2016, due mostly to economic development in the City of Terrace. A significant proportion of that growth was in seniors age cohorts – there were 43% more seniors in from 2006 to 2016, indicating a need for housing across Greater Terrace that supports the needs of older residents.
- The Greater Terrace area is made up of 75% homeowners and 24% renter households. Between 2006 and 2016, renter households grew 15% while owner households only increased by 4%. The increased percentage of renters indicates a greater demand for dedicated affordable rental housing options.
- Homeownership costs and rental costs are increasing and there is a need for more non-market, supportive, and emergency housing options.

Childcare

The 2020 Community Childcare Needs Assessment and Space Creation Action Plan, prepared for the City of Terrace, identifies the number of licensed childcare spaces in Terrace and the surrounding area and identifies gaps, comparing spaces with the availability. The report estimates there is a need for 720 spaces (BRA 2020b). The largest unmet demand is for group childcare – under three years old licences, with a total of 300 childcare spaces needed to meet parents' needs, follow by group childcare for school age children (before- and after-school care), which has an unmet demand of 259 spaces (BRA 2020b). Parents indicated that childcare is not affordable, and the shortage of qualified staff was noted as a significant challenge for childcare service providers (BRA 2020b). No comparable Community Childcare Needs Assessment has been carried out for the District of Kitimat in recent years.

In 2013, there were 10 licensed childcare facilities, and six other pre-kindergarten facilities in the Kitimat and Terrace area (LNG Canada 2014). At the time, these facilities were at or over capacity. From 2014 to 2020, 18 new licensed daycare facilities were added in Kitimat and Terrace (LNG Canada 2014; NHPHP 2020). From 2019 to 2020, the change in the number of licensed daycare facilities and spaces was minimal Table 5-1).



Table 5-1 Licensed Childcare Spaces in 2020

| Community | Licensed Facilities | Total Spaces |
|---------------------------------|---------------------|--------------|
| Kitimat [% YOY Change] | 8 [14%] | 195 [25%] |
| Kitamaat Village [% YOY Change] | 1 [0%] | 64 [129%] |
| Terrace [% YOY Change] | 20 [-13%] | 530 [-7%] |
| Thornhill [% YOY Change] | 4 [0%] | 105 [0%] |
| Total [% YOY Change] | 33 [-6%] | 894 [4%] |
| SOURCE: NHPHP 2021 | | |

In 2020, the Childcare BC New Spaces Fund committed to supporting the creation of 60 new childcare spaces in Kitimat (12 infant and toddler spaces, 16 school-age spaces and 32 group multi-age childcare spaces) at a new 24-Hour Childcare Facility operated by the Tamitik Status of Women (TSW), anticipated to open in 2022 (BC Gov News 2020b).

5.3. Project Reporting

In 2020, the Project implemented the following measures to manage its effects on housing and accommodations:

- The Project did not provide LOAs to the workforce to mitigate potential impacts to the rental housing market, and the LOA policy was broadly communicated. Costs associated with transportation, meals and housing for the non-local workforce are covered directly by the Project.
- Non-local workers followed a job rotation system (primarily 14 days on/7 days off) to encourage workers to maintain their home base.
- The Project built and started operating Cedar Valley Lodge workforce accommodation center in July 2020, to house the non-local Project workforce on site.
- The Project provided accommodations to non-local workers at workforce accommodation open lodges in Kitimat as needed: Crossroads Lodge, Sitka Lodge, and Annex 2. Since December 2020, all non-local workers have been housed on-site at Cedar Valley Lodge.
- The Project actively discouraged non-local job seekers from relocating to Kitimat or Terrace.
- The Project limited the number of employees (including senior management of some contractors and subcontractors), and their accompanying families relocated to Kitimat with housing provided at company-managed units under long term lease (secured in consultation with DOK).
- LNG Canada and JFJV worked closely with DOK to consider any housing stock utilized for a small number of relocated direct employees and supervisors.



In 2020, the Project accommodated a peak of 2,259 non-local workers during the month of November. Workers were accommodated in open lodges in Kitimat and at Cedar Valley Lodge. Also in 2020, a peak of 54 Project staff had relocated to Kitimat and were accommodated in company-provided housing at Haisla Town Centre (HTC) apartments or Cedar Ridge homes (Table 5-2). Both HTC and Cedar Ridge developments are owned and operated by third parties and LNG Canada has been in long-term lease agreements since the new housing stock was introduced in 2017 and 2018 respectively to manage a total of 49 one and two-bedroom apartments at HTC and 29 two to five-bedroom homes through Cedar Ridge. Most units are in long-term leases that do not expire prior to 2025.

In 2020, the Project continued to utilize Sitka Lodge and Annex 2 (operated by Civeo) and Crossroads Lodge (operated by Horizon North) to house non-local Project workers. In response to the COVID-19 pandemic, all open lodge facilities were required to reduce their maximum capacities and were operating below capacity for April to December 2020. While the project housed some of its non-local workers at open lodges during this period, Kitimat open lodges also housed workers from other projects in the area. Due to reduced operating capacity, percent occupancy directly attributed to the Project could not be accurately assessed from Q2 to Q4 2020.

During the first half of 2020, a decreasing number of non-local Project workers were accommodated at open lodges in Kitimat (Sitka Lodge, Annex 2, and Crossroads Lodge) as the Project transitioned workers on site, to Cedar Valley Lodge. The average Project occupancy across all open lodges peaked at just over 1,200 workers in July 2020 and steadily declined to 178 workers in November 2020. The Project’s on-site workforce accommodation centre, Cedar Valley Lodge, began operations in July 2020 with an average of 336 workers, increasing to a peak of 2,249 in November 2020. As of December 2020, all non-local Project workers are accommodated at the Cedar Valley Lodge. As Cedar Valley Lodge construction is completed in Q2 2021, capacity will gradually increase until 4,500 beds are available for the workforce.

Table 5-2 Housing and Accommodations Project Reporting

| Housing & Accommodations Indicators | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|---------|---------|---------|---------|
| Project local (resident) workforce | 640 | 632 | 811 | 760 |
| Project non-local workforce—temporarily housed at Open Lodges in Kitimat (average beds) | 1,520 | 1,071 | 1,226 | 341 |
| Project non-local workforce—temporarily housed on site at Cedar Valley Lodge (average beds) | N/A | N/A | 1,298 | 2,249 |
| Project non-local workforce temporarily staying at Kitimat hotels or lodges | 0 | 0 | 0 | 0 |
| Project non-local workforce temporarily staying at Terrace hotels or lodges | 0 | 0 | 0 | 0 |
| Project staff re-located to Kitimat, presently staying in company provided housing | 45 | 45 | 43 | 54 |
| Accompanying adults of relocated Project staff | 31 | 32 | n/a | n/a |



| Housing & Accommodations Indicators | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|--|---------|---------|---------|---------|
| Accompanying school-aged children of relocated Project staff | 21 | 28 | 28 | 25 |
| Number of housing related concerns or complaints | 0 | 1 | 0 | 1 |
| SOURCES: CIMP Reports (JFJV); LNGC-reported CLISMP data | | | | |

5.4. Community Reporting

In 2020, economic development activity in the region continued to result in changes to the housing market, as evidenced by an overall decreased vacancy in short-term accommodation, lower rental vacancy, and increased average rent in Kitimat. 2020 also saw an impact from the COVID-19 pandemic, which influenced supply and demand for housing and for social housing and support services.

There is continual demand for more non-market, supportive and emergency housing options in both Kitimat and Terrace (M'akola & Turner Drake 2020). As of December 2020, there are 52 emergency housing units in Terrace and eight emergency housing units in Kitimat. In Kitimat, the number of monthly emergency housing bed-stays in 2020 stayed well below 2019 levels for the entire year. For example, the monthly bed-stays in 2020 peaked in September at 234 bed-stays, which was 20.6% lower than in September 2019. The Kitimat CDC had secured funding from BC Housing to operate the shelter year-round, due to the COVID-19 pandemic. The Extreme Weather Response (EWR) shelter in Kitimat continued to be operated at nearly full capacity throughout the summer and into the fall of 2020 as a Capacity Expansion Shelter.

In Terrace, the monthly number of bed-stays from July 2020 to October 2020 was higher than in 2019 at the Terrace EWR Shelter and the Terrace Transition House. This is because the Terrace EWR is typically closed during the summer and early fall but remained open as a Capacity Expansion Shelter until March 31, 2021 in response to the COVID-19 pandemic.

Transition House usage declined at both TSW Dunmore Place in Kitimat and Ksan Society Transition House in Terrace (Table 5-3), which is likely attributed to reduced capacity in response to COVID-19 restrictions. For example, the capacity of TSW was reduced by half its original capacity from April to May 2020, then reduced by two-thirds its original capacity from June 2020 to present (June 2021). TSW was unable to place multiple women / families in one room, as was done before the pandemic, which has created additional challenges. TSW noted having the Transition House in COVID-19 lockdown was a deterrent for some to use the facility because people could only leave for reasons deemed necessary, which impeded its clients' autonomy (Martins 2021).



There is continued demand for suitable and affordable housing in both Kitimat and Terrace. Kitimat's total rental vacancy rate decreased from 37.7% in October 2019 to 15.4% in October 2020 (CMHC 2020a). While the average rent in Kitimat did not increase in Kitimat from 2018 to 2019, it increased 16.8% from 2019 to 2020. Terrace's rental vacancy rates remain low, particularly for row houses, which had 0% vacancy in October 2020 (CMHC 2020a). Terrace's total rental vacancy rate was 4.4% in October 2020, up slightly from both the October 2019 rental vacancy rate of 2.1% and the October 2020 BC average of 2.5% (CMHC 2020a & CMHC 2020b). The average rent in Terrace did not increase from 2019 to 2020 (CMHC 2020a & CMHC 2020b & CMHC 2020c).

The average quarterly resale price for residential houses in Kitimat is \$341,405 as of Q4 2020, which is slightly above the regional average of \$325,536 (BRA and Stantec 2021). The Q4 2020 Kitimat price is down 15.8% from the high recorded in Q2 2019 but has increased by 27.9% from Q3 2018, just before the LNGC's positive FID (BRA and Stantec 2021). The average quarterly resale price for residential houses in Terrace is \$415,662 as of Q4 2020, which is 27.7% higher than the regional average (BRA and Stantec 2021). The Q4 2020 Terrace price was down slightly from the high recorded of \$421,751 in Q4 2019; however, the average price has increased by 22.3% from Q3 2018 (BRA 2021).

The annual regional hotel and motel occupancy rate was 39% (a 21-percentage point decrease between 2019 and 2020, and annual average daily rate (ADR) was \$129 (8% decrease) (STR Global 2021). The decrease in regional hotel and motel occupancy rates in 2020 is attributed to the travel restrictions put in place due to the COVID-19 pandemic. In 2019 Q4 the Project experienced a temporary shortage in available beds for the workforce at Kitimat open lodges, which prompted adaptive management strategies to temporarily house a portion of workers in Kitimat and Terrace area hotels, while maintaining a policy of no LOA payment. In 2020, there was no workforce accommodation bed shortage and the Project's non-local workers were housed entirely in open lodges in Kitimat and on-site at Cedar Valley Lodge. No local area hotels were used to accommodate non-local workers in 2020.

Table 5-3 Housing and Accommodations Community Reporting

| Indicator | 2018 | 2019 | 2020 |
|--|-----------------------|------------------|-------------------|
| Dunmore Nights Full (%) ¹ | 53% ¹⁰ [-] | 81% [28.6] | 21% [-60.1] |
| Ksan Residence and Shelter (KRS) % Days Full / Overfull ² | 99% [-] | 94% [-4.8] | 57% [-36.3] |
| Individuals Accessing Non-Resident Support (NRS) Services ³ | 473 [-] | 1,145 [142%] | 1,094 [-4%] |
| Kitimat Vacancy Rate [%YOY Change] ⁴ | 44% [-] | 38% [-6.4] | 15% [-22.3] |
| Kitimat Average Rent [%YOY Change] ⁵ | \$1,295 [-] | \$1,263 [-2%] | \$1,475 [17%] |
| Kitimat Residential House Price ⁶ | \$283,415 [-] | \$ 371,357 [31%] | \$ 334,441 [-10%] |
| Terrace Vacancy Rate [%YOY Change] ⁷ | 4.1% [-] | 2.1% [-2.0] | 4.4% [2.3] |
| Terrace Average Rent [%YOY Change] ⁸ | \$887 [-] | \$ 946 [7%] | \$ 928 [-2%] |
| Terrace Residential House Price ⁹ | \$339,155 [-] | \$ 397,485 [17%] | \$ 395,458 [-1%] |



| Indicator | 2018 | 2019 | 2020 |
|---|-----------|-------------|-------------|
| Regional Hotel and Motel Occupancy Rates [%YOY change] ¹⁰ | 49% [-] | 60% [10.9] | 39% [-21.0] |
| Regional Hotel and Motel Daily Rates [%YOY change] ¹¹ | \$121 [-] | \$139 [15%] | \$129 [-8%] |
| <p>NOTES: -:not reported; ¹⁰missing data for Q1</p> <p>SOURCES: ¹TSW 2021, ^{2,3}Ksan Society 2021, ^{4,5} CMHC 2020b, ^{6,9} BCNREB 2021a, ^{7,8} CMHC 2020a, ^{10,11} STR Global 2021</p> | | | |

There remained a shortage of qualified Early Childhood Educator (ECE) staff in the region in 2020. The childcare needs survey and assessment undertaken for the City of Terrace found that there is unmet demand for approximately 720 licensed childcare spaces, with the largest categories of unmet demand being children under three years of age and school-aged children (BRA 2020b). Childcare staff shortages have been identified as a limitation in the region and daycare providers in both Kitimat and Terrace have not opened all licensed spaces to accommodate all the children on the waiting lists due to staff shortages (BRA 2020b). Childcare facility operators indicate that attracting new staff from other communities is difficult due to high rental costs (Hemmy 2021). In Kitimat, between Q2 and Q4 2020, the waitlists for infant toddlers (ages 0–3) have increased from 40 to 50 and is likely to increase with higher demand anticipated (Hemmy 2021). The Kitimat Community Development Centre (CDC) was unable to expand their childcare services in 2020 due to the lack of qualified staff and COVID-19 restrictions. The shortage of qualified early childcare educator (ECE) staff is a province-wide issue, however added challenges in the region include attrition and competing with higher wages paid in industry (Hemmy 2020).

5.5. SMR Feedback

The Housing and Accommodations Working Group met virtually in May 2020, September 2020, December 2020, and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. Childcare was included within the Housing and Accommodations SMR meetings in 2020 to respect synergies with service providers. The following questions, issues and topics were discussed during these meetings:

- Availability of affordable housing in Kitimat and Terrace
- Availability of additional funding due to COVID-19 for emergency shelters
- Project policy of not paying LOA to workers
- Availability and adequacy of social housing projects in Terrace and Kitimat
- Availability and adequacy of daytime social housing services in Terrace and Kitimat
- Impact of COVID-19 on social housing projects and service providers in Terrace and Kitimat
- Affordable housing availability as barrier to hiring and retention of staff at service organizations
- Difficulty in finding childcare in Terrace and Kitimat due to limited spaces

Joint venture companies



- Shortage of early childcare educators in town
- Inclusion of additional childcare providers in future monitoring and reporting
- Tamitik Status of Women announced success in its application to provide 60 new childcare spaces in Kitimat at BC's first 24-hour childcare service, delivered from a new building that will begin construction in 2021.
- The DOK confirmed that \$500K of funding has been committed towards the new childcare facility from the Affordable and Accessible Housing Fund.

During SMR meetings, the LNG Canada Project team answered questions related to policies and management of workforce accommodations, including clarification that no LOAs are provided and that all non-local workers mobilized to Kitimat to work on-site are provided with accommodations at the Kitimat open lodges or on-site at Cedar Valley Lodge. This includes LNGC and JFJV staff, contractors, subcontractors, and sub-subcontractors. The Project addressed that efforts are routinely taken to discourage job seekers from moving to the region, but that it cannot prevent anybody from moving to the area. The Project team consistently communicates that there is no spot hiring, all jobs must be applied for online, directly through the website and that the Project remains committed to a hire local first policy.

It was noted that Emergency Shelters were operating below capacity due to COVID-19 and that operations would typically have closed on March 31 but remained open for the entirety of 2020 due to the pandemic. Social Housing service providers, such as Tamitik Status of Women, indicated that they continue to be at or over capacity, further strained by COVID-19 restrictions, which prevent multiple households from sharing shelter space and indicated that available frontline staffing has been impacted by the vulnerability of some workers to COVID-19 risk, which places additional stress and risk of burn-out on remaining staff.

The Kitimat CDC indicated they have lost staff to major construction projects in the area and that childcare service providers cannot compete with industry wages. Service providers also discussed the need for a current assessment of cost of living/living wage for Kitimat.

The COT indicated that the next Terrace Annual Homeless Count, survey would ideally be undertaken in March 2021, but, due to COVID 19 would more like occur in fall of 2021.

Appendix C describes follow-up actions that were identified during the SMR meetings.

The SMR meetings identified a number of suggestions to help track and/or manage changes in housing and accommodations and childcare in the region (Appendix C). No additional mitigation measures were identified for LNG Canada within the housing and accommodations SMR meetings.

5.6. Discussion

History has shown that economic development activities in the region can affect housing affordability and availability (LNG Canada 2020a). The Project has managed its direct impact on the housing market since the implementation of the CLISMP in 2019 by not paying LOAs and by housing the non-local workforce in dedicated workforce accommodation centres.

Joint venture companies



While the Project has limited its direct demand on the housing market, it is evident that the housing market in the Kitimat and Terrace region has been influenced by economic activity related to the LNG Canada project and other projects, similar to what occurred during the period of project development that occurred in the region in the early 2010s. This is evident by lower rental vacancy, increased average rent, and increased demand for social housing. During the Kitimat Modernization Project (KMP), the District of Kitimat implemented a rental subsidy program to assist with recruitment and retention of new DOK employees by temporarily offsetting the high cost of rentals in Kitimat (DOK 2018). The existing policy was amended in 2018 in anticipation of the LNG Canada Project and the time was increased to 12 months and the allowance was increased to \$1,000 (DOK 2018). New District employees throughout the organization have taken advantage of the program (Waycheshen 2021).

A regional dynamic exists between Kitimat and Terrace whereby those unable to secure or maintain affordable housing in Kitimat may find greater availability of housing options and support services in Terrace. Ongoing demand for temporary housing and emergency shelters is evident. Emergency Shelters in both communities received funding to remain open for the entirety of 2020, past their usual closure date of March 31, due to the pandemic. Emergency Shelters saw a continual demand for services throughout the months they would typically be closed (May to September). The availability of affordable rental accommodations in Terrace and Kitimat has been identified by local governments, Indigenous groups, and service providers as an issue of high importance.

The Project's non-local workers were housed entirely in open lodges in Kitimat and on-site at Cedar Valley Lodge and no local area hotels or motels accommodated non-local workers in 2020. The decrease in demand for local area hotels and motels in 2020 is attributed to the decrease in tourism to the area and increase in travel restrictions implemented due to the COVID-19 pandemic.

The COVID-19 pandemic had a major impact on the BC economy in 2020 as the implementation of physical-distancing measures, travel restrictions, and business closures resulted in increased unemployment levels and an overall slowdown in economic activity. These measures and restrictions continue to have impact on housing affordability and availability in the region, as well as in the province. For example, there was COVID-19 pandemic induced pull-back from the housing market early in 2020. In Kitimat, residential housing units sold from Q1 to Q3 2020 were down approximately 27% when compared to the same period in 2019. In Q4 2020, there were 39 residential housing units sold, up 30% from Q4 2019, which is likely due to the suppressed demand from home sales that were put on hold earlier in the year in combination with record-low mortgage rates.



6. SMP Report—Traffic

6.1. Introduction

The Traffic SMP identifies actions to manage project-related effects on local road traffic and airport infrastructure. This SMP summarizes how mitigations identified in the Application will be implemented, monitored, and measured for effectiveness. Objectives of the plan are to:

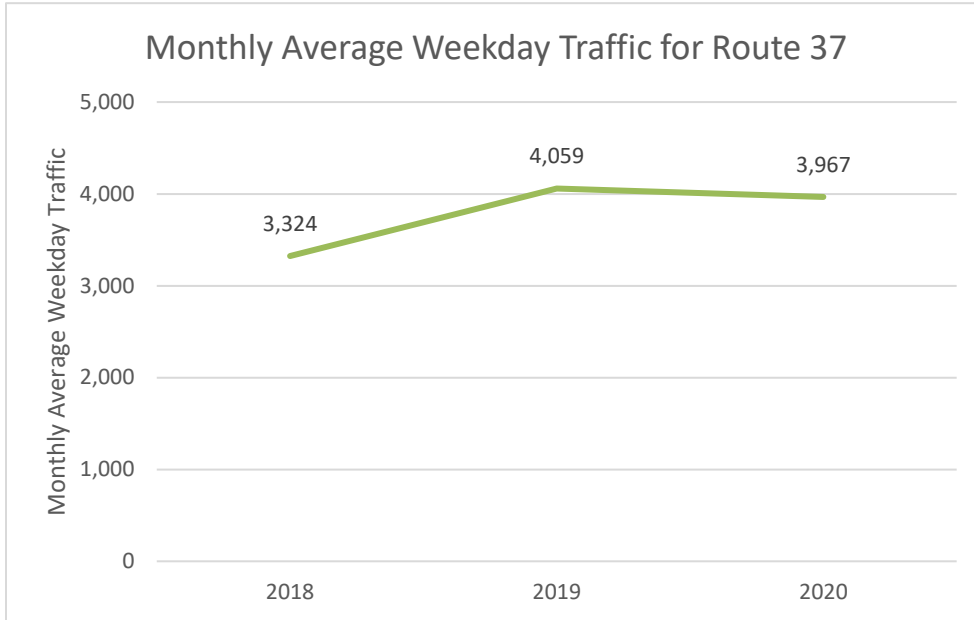
- Minimize the volume of and congestion caused by project-related road traffic
- Reduce the risk of project-related vehicle collisions
- Reduce demand on airport infrastructure and congestion caused by the transport of workers
- Facilitate collaboration with stakeholders and provide a responsive framework from which stakeholders can raise concerns with LNG Canada

Appendix A provides a list of stakeholders who participated in the Traffic working group meetings, including virtual participants.

6.2. Context

In 2020, many travel-related restrictions were implemented in response to the COVID-19 pandemic, including international and domestic travel restrictions (GOC 2021). On March 18, 2020, the federal government initially implemented a ban on all foreign nationals, excluding US citizens and those travelling for essential reasons, and restricted international flights to four Canadian airports (Toronto Pearson International Airport, Montreal-Pierre Elliot Trudeau International Airport, Calgary International Airport, and Vancouver International Airport) (GOC 2021). Then on March 21, 2020, the federal government updated the order to include a ban on non-essential travel between the United States and Canada and has extended the order on a near-monthly basis since (GOC 2021). On March 25, 2020, the government imposed a mandatory self-isolation period of 14 days for all travelers returning to Canada (GOC 2021). The BC government urged residents to avoid all non-essential travel in the province to prevent the spread of COVID-19 and encouraged residents to travel locally and avoid travelling to small communities (Government of BC 2021). The province issued closures, guidelines, and restrictions to discourage non-essential provincial travel, including closing all provincial campgrounds and most provincial parks at the beginning of the pandemic and reducing many BC Ferries routes (Government of BC 2021). These travel restrictions have drastically reduced the number of international and non-local visitors travelling to small communities for tourism and recreation purposes.

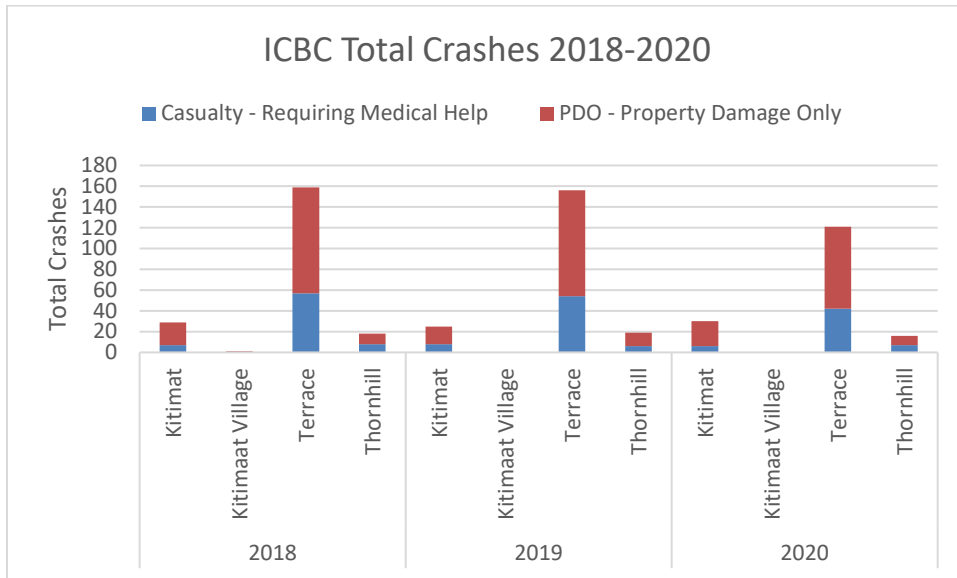
The PHO and WorkSafeBC encouraged employers to facilitate remote work for their employees where possible and to prevent employees from congregating at the workplace (Government of BC 2021). The work-from-home model led to a reduction in commuter traffic. Many drivers cancelled their insurance to purchase a less expensive plan due to the change in their driving habits caused by the pandemic. Insurance Corporation of BC (ICBC) saw fewer crashes and lower claim costs due to the pandemic, which resulted in a higher-than-expected income. Due to this higher-than-expected income, ICBC issued a COVID-19 customer rebate for those who had an active policy from April 1, 2020 to September 30, 2020 (ICBC 2021a).



SOURCE: MOTI 2021

Figure 6-1 Monthly Average Weekday Traffic for Route 37 (0.8 km South of Oolichan Avenue, Kitimat), 2018-2020* (*2018 excludes 2018 Q1 data)

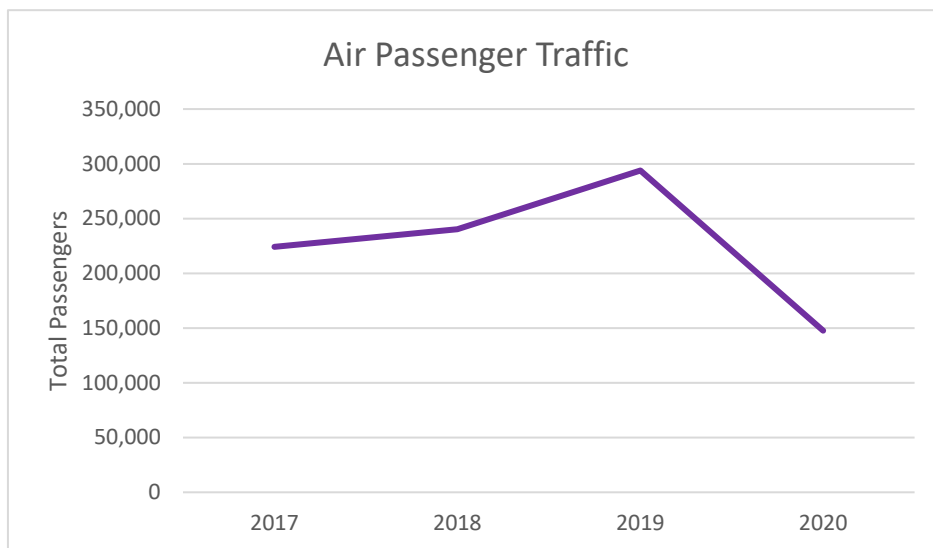
Ministry of Transportation and Infrastructure (MOTI) vehicle count data is incomplete at monitoring stations within Kitimat, Terrace, and along Highway 37, making it difficult to identify potential correlations between project development trends and highway roadway vehicle volumes. The Monthly Average Weekday Traffic for Route 37, as recorded at MOTI's Kitimat North monitoring site which is 0.8 km south of Oolichan Avenue in Kitimat, has increased since the Project began construction in 2019 and maintained that increase in 2020 (Figure 6-1). MOTI vehicle count data is incomplete at monitoring stations within Kitimat, Terrace, and along Highway 37, making it difficult to correlate project development trends and highway roadway vehicle volumes (LNG Canada 2020a). Historically, there has been an increase in vehicle crashes in both Kitimat and Terrace with periods coinciding with increased project development activity (LNG Canada 2020a). However, ICBC data available for the region indicates that, from 2019 to 2020, Property Damage Only (PDO) crashes increased in Kitimat by 41%. PDO crashes decreased 23% in Terrace over the same period (ICBC 2021b). Crashes involving casualties that required medical help decreased 25% and 22%, respectively, in Kitimat and Terrace from 2019 to 2020 (ICBC 2021b).



SOURCE: ICBC 2020

Figure 6-2 ICBC Crash Data, 2018-2020

Terminal volumes from commercial air traffic at the Northwest Regional Airport (YXT) have historically experienced increases due to industrial projects in the region (LNG Canada 2020a). However, in 2020, the overall monthly terminal volumes from commercial air traffic at YXT drastically decreased due to the influence of COVID-19 measures and restrictions (Figure 6-2).



SOURCE: YXT 2021

Figure 6-3 Annual YXT Commercial Traffic Volume, 2017-2020

6.3. Project Reporting

In 2020, the Project implemented the following measures to limit its effects on transportation infrastructure:

- Implementation of Traffic Management Plan, developed in consultation with DOK and the Ministry of Transportation and Infrastructure (MOTI), including consideration for offsite motor vehicle incidents (MVI).
- Majority of heavy, oversized equipment and materials delivered by marine transport.
- Shuttle service provided to and from site with local pick-up points in Terrace and Kitimat, including the Northwest Regional Airport, Sitka Lodge, Annex 2, and Crossroads Lodge.
- Local Residents are required to park their personal vehicles at specific Park 'n Ride locations in Kitimat, Kitamaat Village, and Terrace and take shuttles to and from the worksite.
- The Project continues to work with DOK to minimize local traffic impacts.
- In-vehicle monitoring systems (IVMS) with zero-tolerance Project policy for speeding in Project vehicles.
- Charter flight service in place since 2019 Q4 with hubs established in Nanaimo, Vancouver, Kelowna, Edmonton and Calgary.
- Ongoing logistics planning and coordination with Northwest Regional Airport, MOTI, DOK.



In 2020, the Project continued to limit its impact on roadway traffic volumes by transporting local and non-local workers by shuttle bus. There were increases in the number of workers being transported between Project construction sites and local Park 'n Ride lots in Kitimat and Terrace. By enforcing shuttle transit for workers, the Project limited the use of personal vehicles on local roads, with only a small proportion of the increased traffic measured at MOTI's Kitimat North monitoring site directly attributable to the transportation of Project workers. The Project reported 46 transport-related incidents or near misses in 2020, all which occurred within the Project site. Twenty-two traffic related complaints/concerns from the public were reported. All concerns and complaints raised were addressed by JFJV within 10 business days. Since 2019 traffic related complaints and concerns have largely been attributed to issues with parking. The Project worked together with the DOK to relocate a key Project Park & Ride lot from the lower Kitimat Mall to a location in the Kitimat industrial area, closer to the Project site.

Table 6-1 Traffic Project Reporting

| Traffic Indicators | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|---------|----------|----------|----------|
| Number of daily Project bus trips from Northwest Regional Airport (YXT) to Kitimat (avg. passengers/day) | 7 [75] | 3 [19] | 4 [35] | 7 [36] |
| Number of daily Project bus trips from Terrace Park & Ride to Kitimat (avg. passengers/day) | 7 [84] | 10 [79] | 16 [88] | 22 [105] |
| Number of daily Project bus trips from Kitimat and Kitamaat Village Park & Ride to Site (avg. passengers/day) | 60 [96] | 73 [112] | 84 [158] | 37 [55] |
| Number of road transport-related incidents and near misses | 11 | 5 | 14 | 16 |
| Number of Project personnel on commercial flights through airport per month | 5,170 | 2,095 | 3,226 | 3,178 |
| Number of Project personnel on charter flights | 4,486 | 2,345 | 6,508 | 11,141 |
| Provision of project transportation plans to transportation authorities | 3 | 4 | 2 | 3 |
| Notifications to service providers and the public regarding scheduling of transportation equipment | 4 | 0 | 0 | 0 |
| Number of meetings with transportation authorities on traffic management, congestion, and road safety | 3 | 3 | 4 | 3 |
| Number of traffic related concerns or complaints | 7 | 4 | 8 | 3 |
| SOURCES: CIMP Reports (JFJV); LNGC-reported CLISMP data | | | | |

A 56% YOY decrease in Q4 2020 air traffic was observed, with the decline attributable to the COVID-19 pandemic. The Project directly accounted for approximately 9.3% of commercial passengers transiting through the airport in 2020 (Table 6-1). In the second half of 2020, approximately 70% of the workforce traveled by charter flights, which operate out of a separate hangar from the main NWRA terminal. By transporting the majority of workers on charter flights, Project direct effects on the Northwest Regional Airport were reduced.



The Project increased its use of charter flights over the course of 2020, including the addition of a new hub on Vancouver Island in Nanaimo, bringing the total number of BC and Alberta charter flight hubs to five (Vancouver, Kelowna, Nanaimo, Calgary and Edmonton). Charter flights deplaned and boarded from Northwest Regional Airport (YXT) in a separate hangar facility approximately 500 meters away from the main terminal, limiting interactions with the main terminal amenities, security gate and baggage area. Charter planes land, refuel, taxi and take off using shared runway and apron infrastructure.

6.4. Community Reporting

Road traffic¹⁶ along Highway 37 at the MOTI Traffic Monitoring Site P-47-8NS¹⁷ decreased 2% between 2019 and 2020 (MOTI 2021). While Project-related shuttle bus traffic accounted for only 1.8% of traffic along Highway 37 in 2020, other Project traffic, including truck movements, contributed to the increased roadway volume.

In 2020, despite YXT becoming the northwestern flight hub following a number of airport closures¹⁸ for the region (Hewitt 2020), there was a 50% decrease in commercial air traffic through YXT compared to 2019, likely a result of the travel restrictions enforced by the BC Government due to the COVID-19 pandemic (Table 6-2). Transiting Project workers accounted for 9.3% of total commercial flight passenger volume in 2020.

In Q4 2020, Northwest Regional Airport decided to expand its apron to address the increased volume of charter activity attributed to the LNG Canada Project and other industry. Also, in Q4 2020, NWRA increased its Airport Improvement Fee (AIF) as a means of financing the \$2 million apron expansion and infrastructure required by the additional traffic. AIF was increased for Charter flights greater than 19 passengers from \$7 per passenger to \$20 per passenger (YXT 2020a & YXT 2020b). The Airport Improvement fee for commercial carriers was also increased from \$7 per passenger to \$10 per passenger (YXT 2020a & YXT 2020b).

Table 6-2 Traffic Community Reporting

| Indicator | 2018 | 2019 | 2020 |
|--|-------------|---------------|----------------|
| YXT Air Passengers, [%YOY change] ¹ | 240,253 [-] | 293,895 [22%] | 147,642 [-50%] |
| Highway Road Traffic, [%YOY change] ² | 3,286 [-] | 3,878 [18%] | 3,815 [-2%] |
| NOTES: -:not reported SOURCES: ¹ YXT 2021, ² MOTI 2021 | | | |

¹⁶ MAWDT (Monthly Average Weekday Traffic): Refers to the average daily traffic calculated from Monday to Thursday over a one-month period. Fridays are excluded from the calculation as they tend to have traffic patterns that do not match other weekdays (MOTI 2014).

¹⁷ MOTI Traffic Monitoring Site P-47-8NS located 0.8 km south of Oolichan Ave, Kitimat.

¹⁸ Smithers Regional Airport (YYD) was closed from approximately June to October 2020; Prince Rupert Airport (YPR) was closed June 2020 (Hendry 2021).



6.5. SMR Feedback

The Traffic and Emergency Response SMR met virtually in May 2020, September 2020, December 2020, and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. The following road and air traffic issues and topics were discussed during these meetings:

- Increase in number of transportation permits over the last three years
- Use of shuttle buses to transfer local and non-local workers
- Use of In-Vehicle Monitoring Systems in Project vehicles
- Project-related parking and local traffic impacts in Kitimat
- Winter traffic management and emergency preparedness plans
- Use of charter flights to transport a majority of the workforce
- Capacity and preparedness to respond to a significant motor vehicle crash on Highway 37

During the SMR meetings, LNG Canada project staff shared updates on the implementation of its Traffic Impact Study (TIS) and Traffic Management Plan. The Terrace Fire Department (TFD) provided a summary from an October 2020 Significant Motor Vehicle Incident planning exercise (e.g., shuttle bus rollover along Highway 37), which was attended by 17 organizations, including LNG Canada and JFJV. Among key items discussed was the need to pull together medical services to hold a mass casualty drill. Moving forward, additional training and exercises are required to build familiarity and skill with unified command structure. The event was led by TFD and sponsored by LNG Canada.

Appendix C describes follow-up actions that were identified during the SMR meetings, including those assigned to LNG Canada, local government, service providers, and provincial agencies. No additional mitigation measures were identified for LNG Canada within the traffic SMR meetings.

6.6. Discussion

A notable reduction in air traffic and a minimal change in road traffic occurred in the Kitimat - Terrace area between 2019 and 2020, likely due to travel restrictions enforced by the BC Government in response to the COVID-19 pandemic. Increase in road traffic is partly due to increased Project-related shuttle bus traffic and other vehicles. By transporting workers to and from the airport, open lodges, and Project site locations on shuttles, and by establishing Park & Ride lots, and enforcing shuttle transit for local workers, the Project limited the use of personal vehicles on local roads.

The Project limited its direct effects on Northwest Regional Airport by using charter flights for a majority of the workforce. There were 147,642 commercial air passengers in 2020, down 49.8% from 2019, which had a record-breaking 293,895 commercial air passengers. In 2020 the Project directly accounted for 9.3% of commercial passengers transiting through the airport and is limiting terminal usage by increasing the use of charter flights for most of its rotational workforce.

Joint venture companies



In 2020, the Project worked together with DOK to minimize parking and local traffic impacts which included: leasing multiple DOK parking lots to meet increasing demand for local workforce Park 'n Ride locations, relocating a key Park 'n Ride lot from the lower Kitimat Mall to the Kitimat Industrial area, and support for DOK implementation of parking by-laws and additional signage to restrict overnight parking on busy residential roads and in high traffic public parking lots. The Project also worked together with TFD and other regional emergency responders to strengthen preparedness to respond to a major motor vehicle incident on highway 37 by participating in planning meetings.



7. SMP Report—Emergency Response

7.1. Introduction

The Emergency Response SMP identifies actions to manage project-related demands on emergency services. The SMP summarizes how mitigations identified in the EAC application will be implemented, monitored, and measured for effectiveness. The plan also outlines objectives of mitigation measures and provides a timeframe during which mitigation measures will be implemented. Stakeholders that may be interested in participating in the implementation of components of the plan are also identified.

Objectives of the plan are to:

- Implement a framework to manage emergencies and spills within the project site
- Minimize project-related demand on emergency and protective services
- Develop positive workforce behaviours and respect for local communities, and avoid incidents that would require the use of community protection services
- Help emergency and protective service providers plan for potential changes in service requirements

Appendix A provides a list of stakeholders who participated in the Emergency Response working group meetings, including virtual participants.

7.2. Context

To quantify criminal incident trends experienced across Canada during the COVID-19 pandemic, 17 police services¹⁹, representing approximately 59% of the Canadian population, were surveyed. The survey found that during the first four months of the pandemic, there was a 16% decrease in selected criminal incidents²⁰, from 2019 to 2020, and a 7% increase in the number of calls for service, particularly for wellness checks and calls to attend to domestic disturbances (Statistics Canada 2020b). From March to June 2020, 13 crime types were surveyed by 17 police services to provide insight into police-reported crime during the pandemic (Statistics Canada 2020b). In each of the 13 crime types surveyed, there was a 16% decrease overall when compared to the same period of the previous year (Statistics Canada 2020b). Police services saw a 27% decrease in reported sexual assaults, 46% decrease in shoplifting, 22% decrease in residential breaking and entering, 15% decrease in motor vehicle theft, and a 20% decrease in robbery (Statistics Canada 2020b). There was also a 6% decrease in non-residential break and enters during the early months of the pandemic even though businesses were largely closed, and many were left unattended (Statistics Canada 2020b).

¹⁹ From March to June 2020, 17 police services, which service approximately 59% of the Canadian population, provided data on a voluntary basis (Statistics Canada 2020b). These include: Calgary, Edmonton, Halton Region, Kennebecasis Region, London, Ontario Provincial Police (OPP), Ottawa Regina, Royal Canadian Mounted Police (RCMP), Royal Newfoundland Constabulary, Saskatoon, Toronto, Vancouver, Victoria, Waterloo Region, Winnipeg, and York Region (Statistics Canada 2020b).

²⁰ Selected crime types include assaults, sexual assaults, assaults against a peace or public officer, uttering threats, robbery, dangerous operation cause death or bodily harm, impaired driving or impaired driving causing death or bodily harm, breaking and entering, motor vehicle theft, shoplifting, fraud / identity theft / identity fraud, and failure to comply with an order.



Calls for service often refer to events that are directly related to public safety and well-being and are not necessarily criminal in nature. From March to June 2020, there was an increase in calls for service, including a 12% increase in general wellbeing (welfare) checks, 12% increase in domestic disturbances, and a 11% increase in mental health-related such as a person in an emotional crisis (Statistics Canada 2020b). The increase in wellbeing checks and reports of domestic abuse may be linked to the increased social isolation resulting from social distancing measures implemented during the pandemic (Statistics Canada 2020b). The increase in mental health-related calls during the pandemic is likely due to the physical distancing, social isolation, and financial losses experienced by many (Statistics Canada 2020b).

Early in the pandemic (from April to May 2020), Statistics Canada produced an online questionnaire measuring the impact of COVID-19 on the mental health of Canadians (Statistics Canada 2020c). 24% of participants reported fair or poor mental health, a 16% increase from previously published data from the 2018 Canadian Community Health Survey (Statistics Canada 2020c). Over half of the participants report that their mental health worsened after the onset of physical distancing measures and had experienced at least one symptom of anxiety in the two weeks prior to completing the survey (Statistics Canada 2020c). There was higher anxiety reported amongst those who had been financially affected by COVID-19 (Statistics Canada 2020c).

The COVID pandemic has been correlated with increases of overdose. Since the declaration of the COVID-19 public health emergency on March 17, 2020, the rate of overdose events and illicit drug toxicity deaths have increased and surpassed historic highs (BC CDC 2021b). The Northern Health Authority had significantly higher overdose call volumes, with a 56% increase from 2019 to 2020 (BC CDC 2021b). A study conducted by the US Centers for Disease Control and Prevention (CDC) found a substantial increase in synthetic opioid-involved overdose deaths between 2019 and 2020 (CDC 2020).

7.3. Project Reporting

In 2020, the Project implemented the following measures to limit its effects on emergency response services:

- Site Emergency Response Plans are in place, developed with inputs from Kitimat Fire and Ambulance Service (KFAS)
- Primary on-site emergency response managed with on site personnel and equipment
- Safer Together Program reinforces a safety mindset that is based on four pillars with a strong foundation of caring for people
- All site personnel complete Worker Code of Conduct and Cultural Awareness Training
- Regular Project engagement with RCMP and First Responders

In 2020, the Project recorded 28 incidents requiring ambulance service calls, one fire department service call, and 12 Royal Canadian Mounted Police (RCMP) service calls to meet Project workforce needs (Table 7-1). The Project directly accounted for a small proportion of the direct demand on local area emergency service providers. In 2020, the Project accounted for 0.5% of fire-related calls, 2.1% of ambulance calls received, and 0.3% of calls to the Kitimat RCMP.



Table 7-1 Emergency Response Project Reporting

| Emergency Response Indicators ²¹ | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|------------------|---------------------|-----------------|------------------|
| Number of ambulance service calls to site | 0 | 6 | 6 | 16 ²² |
| Number of fire department service calls to site | 0 | 0 | 1 | 0 |
| Number of RCMP service calls to site | 1 | 1 | 7 ²³ | 3 |
| Number of meetings held to coordinate and plan emergency response | 21 ²⁴ | 18 ^{25,26} | 9 | 6 |
| Number of emergency response related concerns or complaints | 0 | 0 | 0 | 0 |
| Number of notifications to health authorities for occurrence of communicable illnesses/diseases ²⁷ | 43 | 91 | 107 | 189 |
| Percentage of workers who have signed the Worker Code of Conduct | 100% | 99% | 100% | 100% |
| Percentage of workers who have completed Cultural Awareness Training ²⁸ | 94% | 81% | 95% | 100% |
| SOURCES: CIMP Reports (JFJV); LNGC-reported CLISMP data | | | | |

²¹ Health and Emergency Response metrics are compiled from 5 sources: JFJV site (including Cedar Valley Lodge); LNG Canada (CPI contractors); Sitka Lodge medical services provider, Sitka Annex 2 medical services provider, and Crossroads Lodge medical services provider

²² Increase in ambulance calls primarily attributed to the workforce increase and related medical conditions (cardiac, diabetes, epilepsy).

²³ Higher number of RCMP calls to site for September 2020 were due to: (1) worker intoxication; (1) worker mental health issue; (5) 911 pocket dials

²⁴ (16) Emergency Response coordination and planning meetings related to COVID-19 were held in March.

²⁵ (8) Emergency Response planning meetings / notifications in May were with KFAS for the Emergency Response Plan update.

²⁶ Emergency Response planning meetings / notifications in June were with KFAS for the Emergency Response Plan update: June 4 KFAS medical distress debrief; June 19 KFAS; June 22 DOK Council closed session; June 30 DOK-JFJV-LNGC Interface

²⁷ Notifications to health authorities (Northern Health) during 2020 were primarily related to COVID-19 management

²⁸ Cultural Awareness Training can be complete within 30 days of attending Orientation. In order to teach in a meaningful way JFJV has capped the class size at 30 people. A process is in place to ensure all workers complete this training.



7.4. Community Reporting

Demands for emergency service providers in both Kitimat and Terrace fluctuated across the year due to seasonal trends and due to the COVID-19 pandemic. There was a general increase in service demand in 2020 compared to 2019, except in calls for service for the Terrace Fire Department (TFD) and Terrace RCMP, which experience a decrease (Table 7-2). In 2020, the Terrace Fire Department experienced a 60% decrease in calls for service, compared to the same period in 2019, while KFAS recorded a 31% increase in calls between 2019 and 2020 (Table 7-2). From 2019 to 2020 there was a change in how some types of calls were routed to the TFD, resulting in a reduction in non-emergency and medical related calls (Jephson 2020). The Thornhill Fire Department reported a 29.5% decrease in the total number of incidents from 2019 to 2020 (Thornhill Fire Department 2021). In 2020, the Thornhill Fire Department experienced an increase in membership due to people in the community being laid off or workplace places being shut down because of public health recommendations (Boehm 2021). The Terrace RCMP recorded an 11% decrease in call volume between 2019 and 2020, while the Kitimat RCMP experienced a 5% increase in call volume over the same period (RCMP 2021).

Initially, COVID-19 slowed recruitment and the new employee orientation processes for the BC Emergency Health Services (BCEHS) and RCMP (LNG Canada 2020b). In March, the BCEHS was able to orientate eight people across the province—two of those were for the Kitimat-Terrace area (LNG Canada 2020b). During the 2020 Q2 SMR meeting, the BCEHS provided an update on its resourcing strategy, resulting in more full-time positions and more resources being deployed to Terrace to assist with demand (LNG Canada 2020c).

In March 2020, there was a slowdown in recruitment and training within the RCMP as the RCMP Academy, Depot Division, was forced to close (Stephanow 2020). The training facility reopened in June 2020, with alterations to the day-to-day training operations due to the emergence of COVID-19 in Saskatchewan (Stephanow 2020). In April 2020, four officers were added to the Kitimat RCMP detachment in anticipation of increasing demand related to increasing economic activity in Kitimat over the coming years (Morgan 2021).

Table 7-2 Emergency Response Community Reporting

| Indicator | 2018 | 2019 | 2020 |
|---|------------|-------------|-------------|
| KFAS Total Calls for Service, [%YOY change] ¹ | 1,5132 [-] | 2,039 [35%] | 2,148 [5%] |
| KFAS Fire Related Calls, [%YOY change] ³ | 1492 [-] | 153 [3%] | 200 [31%] |
| KFAS Medical Related Calls, [%YOY change] ⁴ | 9662 [-] | 1,137 [18%] | 1,311 [15%] |
| Terrace Fire Department Calls for Service, [%YOY change] ⁵ | 1,346 [-] | 1,506 [12%] | 603 [-60%] |



| Indicator | 2018 | 2019 | 2020 |
|--|------------|----------------|---------------|
| Terrace BCEHS Calls for Service, [%YOY change] ⁶ | 1,4937 [-] | 3,044 [103.9%] | 3,134 [3%] |
| Kitimat Policing Calls for Service, [%YOY change] ⁸ | 3,529 [-] | 3,746 [6%] | 3,930 [5%] |
| Terrace Policing Calls for Service, [%YOY change] ⁹ | 12,230 [-] | 13,815 [13%] | 12,255 [-11%] |
| NOTES: -:not reported; ² missing data for Q1; ⁷ missing data for Q1 & Q2 SOURCES: ^{1,3,4} KFAS 2021, ⁵ TFD 2021, ⁶ BCEHS 2021a, ^{8,9} RCMP 2021 | | | |

Terrace BCEHS overdose and poisoning (ingestion) events increased 96.7% between 2019 and 2020 (Table 7-3). This increase reflects trends reported elsewhere in BC that show a correlation between the COVID pandemic and the number of overdoses (see Section 7.2).

Table 7-3 Overdose / Poisoning (Ingestion) Events in Terrace

| Indicator | 2019 | 2020 |
|--|---------|-------------|
| Overdose / Poisoning (Ingestion) Events [% YOY Change] | 121 [-] | 238 [96.7%] |
| NOTES: -:not reported SOURCE: BCEHS 2021a | | |

7.5. SMR Feedback

The Emergency Response SMR met virtually in May 2020, September 2020, December 2020, and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. The following issues and topics were discussed during these meetings:

- Increase in overall community mental health issues
- Impact of COVID-19 on recruitment and new employee orientation processes
- Impact of local outdoor recreational opportunities on emergency response services, including Search and Rescue
- Emergency response training and coordination



During SMR meetings the LNG Canada Project team answered questions related to the Project's policies and mitigation measures to help limit incremental demand on emergency service providers, including its Worker Code of Conduct and Cultural Training requirements. The Project provided updates on its Emergency Response Plan. The Project also noted that it is currently working directly with the DOK during construction to ensure hazards and risks are identified in the DOK's Hazard, Risk and Vulnerability Analysis (HRVA).

Emergency service organizations, including Kitimat Fire and Ambulance Service, Terrace RCMP, Terrace Fire Department, and BCEHS shared their observations on changes in demand and resourcing challenges. Emergency responders noted an increase in mental health-related calls, with more effort needed to understand the situation and provide better support. The RCMP is working on setting up a Kitimat situation table, which is a collaborative approach to address issues in a timely matter. It was noted that service organizations are not always adequately trained to address people with mental health and addiction issues and an available Kitimat resource guide was shared with SMR members.

Appendix C describes follow-up actions that were identified during the SMR meetings, including those assigned to LNG Canada, local government, service providers, and provincial agencies. No additional mitigation measures were identified for LNG Canada within the emergency response SMR meetings.

7.6. Discussion

Through the implementation of mitigation measures, the Project limited its direct demands on emergency service providers, with Project-related calls and incidents accounting for a small proportion of calls attended to by fire, ambulance, and police services. Data shared by emergency service providers shows that demands for fire, ambulance, and police increased in 2020 in Kitimat compared to 2019. In Terrace, the demands for fire and police decreased and the demands for ambulance increased slightly in 2020 compared to 2019 (Table 7-2).

In 2020, there were no emergency response related concerns/complaints with respect to the Project. No additional mitigation measures were identified for LNG Canada regarding its management of direct demand on emergency services.

8. SMP Report—Community Health

8.1. Introduction

The Community Health SMP identifies actions to manage project-related demands on health infrastructure and services within the Northwest Health Service Delivery Area (NHSDA) of Northern Health, as well as community cohesion and resilience. Community Health is a broad area, covering aspects including social health determinants, health risk, health-related behaviours, health outcomes, and health services. SMP areas such as housing, education, and emergency services are health determinants, or otherwise relate to health conditions within the study area. Because of the linkage between community health and crime, crime rate data and discussion are provided in this section.

The SMP summarizes how mitigations identified in the EAC application will be implemented, monitored, and measured for effectiveness. The plan also outlines objectives of mitigation measures and provides a timeframe during which mitigation measures will be implemented. Stakeholders that may be interested in participating in the implementation of components of the plan are also identified.

Objectives of the plan are to:

- Manage potential demand on local and regional health care infrastructure and services
- Manage workforce activities and behaviours to promote healthy living and working environments, and community cohesion
- Engage and share information on temporary workforce numbers with Indigenous groups and services providers to help them plan for additional demands

Appendix A provides a list of stakeholders who participated in the Community Health working group meetings, including virtual participants.

8.2. Context

In March 2020, Mills Memorial Hospital (MMH) in Terrace was one of nineteen sites in BC to be designated a primary COVID-19 treatment facility (Link 2020). The MMH is one of three COVID-19 emergency response centres in the Northern Health region and is the designated centre for the Northwest region. As a primary COVID-19 treatment centre, it is designated to deliver care to the most critically ill patients in the region while off-site facilities treat non-COVID-19 patients, leading to an increase in the number of transfers. Due to a surge in the number of COVID-19 cases in the region at the end of 2020, there was increased pressures on acute care and public health resources. Some COVID-19 patients at MMH were transferred to the Prince Rupert Regional Hospital in early 2021 due to the overwhelming increase in case numbers, the lack of beds available, and increased pressure on MMH and its staff (Millar 2021).



Hospitals across Canada began suspending non-urgent and elective surgeries and procedures in March 2020 in anticipation of the additional strain that COVID-19 would place on hospitals, introducing the potential for increased demand in the future due to a backlog of surgeries. Those with mild or suspected symptoms of COVID-19 were asked not to visit emergency urgent care centres to get tested or seek treatment and were instead asked to stay home and self-isolate unless more serious symptoms developed. British Columbians with non-urgent conditions and illnesses were encouraged to use alternative methods of diagnoses, other than visiting clinics and emergency urgent care centres, such as dialing 811, a free-of-charge provincial health information and advice phone line.

Early in the pandemic, hospital-based doctors did notice a decrease in patients (Mitra 2020). The decrease could be due to a decrease in non-essential patients, but some doctors suspected that the decrease could have been due to a decrease in patients who may have needed critical care but avoiding seeking care because they were worried about contracting COVID-19 (Mitra 2020). The increase in demand on the healthcare system has taken a toll on frontline workers and first responders. Frontline health care workers, providing direct patient care, experience higher levels of anxiety due to fears of being infected and infecting others. Frontline workers experience higher levels of job stress, fatigue, and burnout (BC CDC 2020).

The social determinants of health are the economic and social conditions that influence the health outcomes of populations (GOC 2019). Determinants of health monitored within the scope of the CLISMP includes a number of indicators that relate directly or indirectly to social determinants, including housing, health and social services delivery, emergency service delivery, and crime rates. Section 5.2 and Section 7.2 provide insights to housing and emergency response trends. Crime rate trends are captured below.

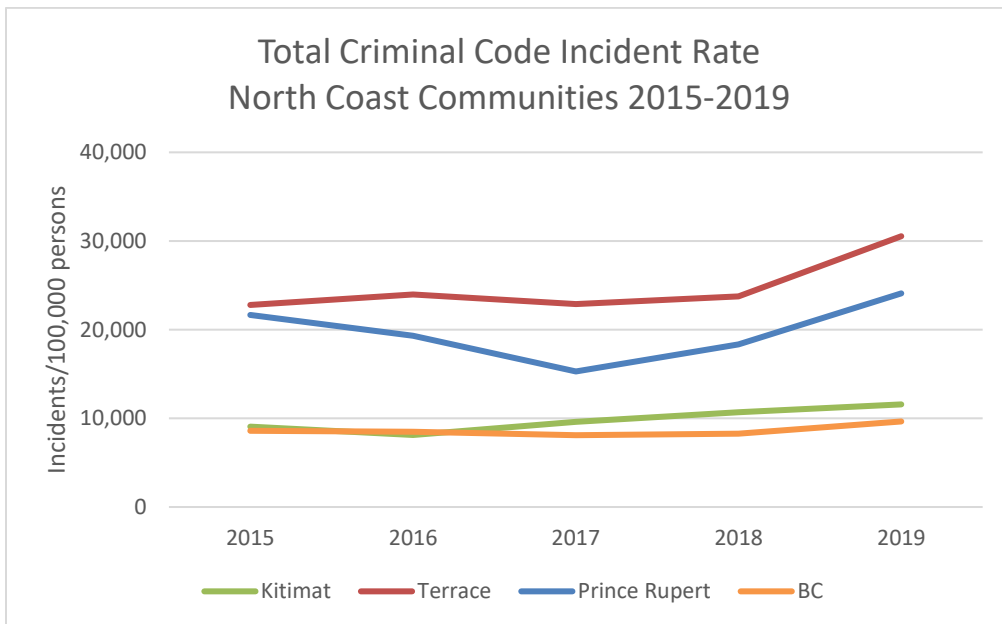
The Community Well-Being (CWB) Index measures a number of health determinants for communities across Canada based on Census data. The Index is comprised of four equally weighted components, widely accepted as being important to wellbeing: education, labour force activity, income and housing. Previous Census data show that CWB scores of communities within the Kitimat-Terrace region were gradually increasing (LNG Canada 2020a). The analysis is only done during Census years and no direct correlation can be made for the change in community wellbeing and major project activity; however, it is possible that more frequent data may show that some fluctuation in score values does exist (LNG Canada 2020a). CWB Index values from the 2021 Census will next be available in 2022 to help characterize community health for communities across Canada.

The overall crime rate in north coast BC communities in 2017, prior to the Project's positive FID, was higher than the BC average, with Terrace's crime rate averaging over 2.8 times the provincial average and Kitimat's crime rate averaging nearly 1.2 times the provincial average (Figure 8-1).

Statistics Canada reporting on Criminal Code violations for 2020 was not available at the time of this reporting; however, information for NW BC from 2015 through 2019 provides some indication of crime incident rate trends in the region. Between 2018 and 2019 (from the Project's positive FID to the Project's first year of construction), the rate of violent crime increased 20% in Terrace and 14% in Kitimat, comparable to the 33% increase in the BC average during this period (Figure 8-2). During the same period, the rate of sexual assaults increased 48% in Terrace and decreased over 33% in Kitimat, compared to the BC average increase of 25% (Figure 8-3).

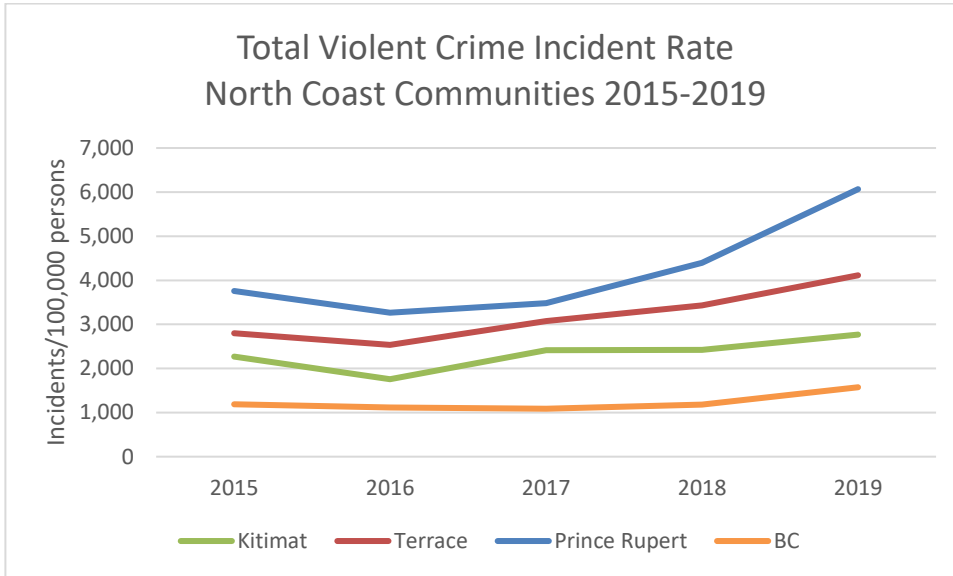


In January 2018, Statistics Canada updated its reporting methodology for policing services across Canada. Police agencies across Canada implemented these changes at varying points throughout 2018. In BC, the rollout occurred later, which may have contributed to the notable increase in BC’s police-reported crime in 2019. This update included new definitions of “founded” and “unfounded” crimes, which represent a victim-centred approach to recording crimes. This approach assumes that a criminal incident has occurred (“founded”) unless there is credible evidence which proves it did not (“unfounded”). As a result of these changes, the number of “founded” incidents for some types of crime, including sexual assault, will likely increase and the clearance rate for these crimes will likely decrease (BC Ministry of Public Safety and Solicitor General 2020).



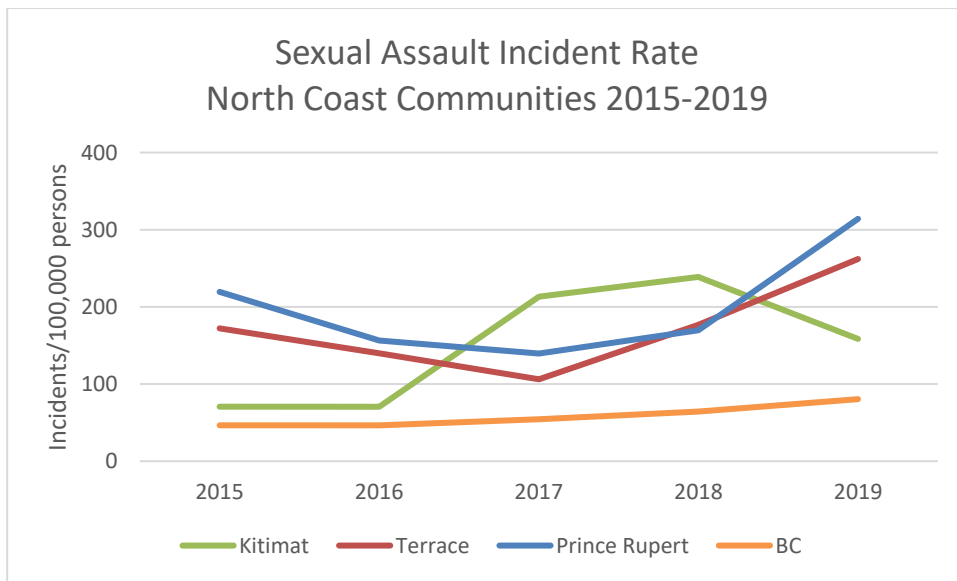
Source: Statistics Canada 2020d

Figure 8-1 Total Criminal Code Incident Rate 2015–2019



Source: Statistics Canada 2020d

Figure 8-2 Violent Crime Incident Rate 2015–2019



Source: Statistics Canada 2020d

Figure 8-3 Sexual Assault Incident Rate 2015–2019



8.3. Project Reporting

In 2020, the Project implemented the following measures to limit its effects on community health services:

- Medical services provided at Project site (ISOS), Sitka Lodge (Medcor), Annex 2, Cedar Valley Lodge
- Crossroads Lodge has an Occupational First Aid (OFA) person available day/night. ISOS Medical is there to support critical emergencies. All non-emergencies are directed to the Project site clinic.
- Communication and coordination with Kitimat General Hospital (KGH). Regular check-ins with Mills Memorial Hospital (MMH).
- Workers at site receive training and must sign a Workers Code of Conduct and complete Cultural Awareness Training. Consequence management is enforced.
- Implementation of Health & Medical Services Management Plans, including health promotion, worker wellness (including mental health), infectious disease prevention and outbreak controls.
- COVID-19: regular check-ins with Northern Health, Ministry of Health, WorkSafeBC, BC CDC to discuss efficacy of control.
- COVID-19 management:
 - Continuous enhancement of COVID-19 protocols on site and at workforce accommodations
 - Increased staffing of medical professionals and non-medical Personal Care Attendants
 - On site COVID-19 swabbing as directed by health authorities
 - Increased supplies of medical grade oxygen
 - Isolation wings in workforce accommodations, where any resident with symptoms or confirmed COVID-19 infection is housed and receives services and care.
 - As of mid-2021, COVID-19 measures expanded to include:
 - Worker rapid screening program at charter hubs in Calgary, Edmonton, Vancouver, Kelowna, Nanaimo as well as at the Project site in Kitimat
 - Mandatory repeat testing 3 days after arrival for workers staying at Cedar Valley Lodge
 - Implementation of Northern Health vaccine program at the Project site
 - Policy restricting all non-local Project workers from leaving the site, and other work areas

The Project strives to have no impact to regional healthcare services and infrastructure, except in the case of emergencies which cannot be predicted or avoided, such as cardiac arrest. Managing direct effects on community health also considers workforce activities and behaviours to promote healthy living and working environments, and community cohesion. In 2020, the Project recorded 41 workplace occupational injuries and illnesses and 109 non-occupational injuries and illnesses requiring treatment at local hospitals (Table 8-1). The Project also notified health authorities 430 times of occurrences of communicable diseases related to its workforce, the majority of which were related to COVID-19, including the management of two COVID-19 outbreaks at the Project site, addressed in Section 3.2. A total of 5,663 visits to Project-provided medical clinics occurred in 2020 to address non-occupational injury or illness. Project-provided healthcare services accessed by workers limited the demand on local area health services. During 2020 100% of workers signed off on the Worker Code of Conduct and 100% of workers were reported to have completed cultural awareness training. Newly onboarded workers have 30 days to complete cultural awareness training, hence the percent completion of this training reported for any given month may be less than 100%.

Table 8-1 Community Health Project Reporting

| Community Health Indicators ²⁹ | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|---------|---------|---------|---------|
| Number of workplace occupational injuries and illnesses requiring treatment at local hospitals | 8 | 7 | 13 | 13 |
| Number of workplace non-occupational injuries and illnesses requiring treatment at local hospitals | 28 | 18 | 32 | 31 |
| Number of workplace injuries or illnesses requiring medevac | 0 | 0 | 0 | 0 |
| Number of recordable occupational injuries | 7 | 6 | 7 | 3 |
| Number of non-occupational injuries or illness ³⁰ | 783 | 517 | 745 | 3,618 |
| Number of notifications to health authorities for occurrence of communicable illnesses/diseases ³¹ | 43 | 91 | 107 | 189 |
| Percentage of workers who have signed the Worker Code of Conduct | 100% | 99% | 100% | 100% |
| Percentage of workers who have completed Cultural Awareness Training ³² | 94% | 81% | 95% | 100% |
| Number of community health related concerns or complaints ³³ | 7 | 4 | 3 | 4 |
| SOURCES: CIMP Reports (JFJV); LNGC-reported CLISMP data | | | | |

8.4. Community Reporting

There was an average 11% decrease in ER visits to KGH in 2020, compared to 2019, with much of the decrease occurring between Q2 and Q4 (Table 8-2). Similarly, there was an average 17% decrease in ER visits to the MMH in 2020 compared to 2019. Throughout 2019 and 2020, KGH had a much lower proportion of unscheduled ER visits than did MMH, suggesting that more people were using KGH for primary care needs. The change in unscheduled visits at both KGH and MMH, between 2019 and 2020, was minimal. There was an overall 7% increase in the proportion of KGH ER patients from outside of the Northern Health Service Delivery Area (NHSDA) in 2020 (Table 8-2).

²⁹ Health and Emergency Response metrics were compiled from five sources in 2020: JFJV site (including Cedar Valley Lodge); LNG Canada (CPI contractors); Sitka Lodge medical services provider, Sitka Annex 2 medical services provider, and Crossroads Lodge medical services provider

³⁰ JFJV non-occupational injury and illness data for Q1-Q3 2020 was previously not reported.

³¹ Notifications to health authorities (Northern Health) in 2020 were primarily related to COVID-19 management.

³² Cultural Awareness Training can be complete within 30 days of attending Orientation. In order to teach in a meaningful way JFJV has capped the class size at 30 people. A process is in place to ensure all workers complete this training.

³³ All Health concerns raised from March to December 2020 related to COVID-19.



This increase correlates with an increase in the number of non-local workers lodged in Kitimat working on the LNG Canada Project and other projects in the area, suggesting that some non-local workers may be visiting KGH for primary care needs.

Table 8-2 Community Health Community Reporting

| Indicator | 2018 | 2019 | 2020 |
|--|------------|---------------|---------------|
| Kitimat General Hospital (KGH) Emergency Room (ER) Visits, [%YOY change] | 12,661 [-] | 13,774 [9%] | 12,191 [-11%] |
| Mills Memorial Hospital (MMH) ER Visits, [%YOY change] | 28,477 [-] | 24,156 [-15%] | 19,929 [-17%] |
| KGH % Unscheduled ER visits | [-] | 66% [-] | 67% [3%] |
| MMH % Unscheduled ER visits | [-] | 83% [-] | 83% [1%] |
| KGH % of Unscheduled ER Visits Linked to WCB Claims | [-] | 5% [-] | 5% [3%] |
| MMH % of Unscheduled ER Visits Linked to WCB Claims | [-] | 3% [-] | 3% [1%] |
| KGH % of Patient Home HSDA Outside the Northern Health Authority (NHA) | [-] | 9% [-] | 10% [7%] |
| MMH % of Patient Home HSDA Outside the NHA | [-] | 7% [-] | 5% [-20%] |
| NOTES: -:not reported | | | |
| SOURCES: Northern Health 2021b | | | |

Table 8-3 and Table 8-4 present the number of and percentage of quarterly changes in founded crime incidents under the Canadian Criminal Code and other federal statutes in 2020 for Kitimat and Terrace respectively. In Kitimat, the overall incidences of crime increased in Q2 over Q1, and Q3 over Q2, and then declined between Q3 and Q4, which was the trend seen in 2019. This reflects a seasonal pattern of crime incidences, which has also been evident over recent years. In Terrace, the overall incidences of crime decreased slightly between Q1 and Q2, increased in Q3, and then decreased again in Q4.



A Canada-wide study found that during the first four months of the pandemic, there was a 16% YOY decrease in selected criminal incidents³⁴ and a 7% YOY increase in the number of calls for service, particularly for wellness checks and calls to attend to domestic disturbances (Statistics Canada 2020b). There may be a correlation between the implementation and relaxing of COVID-19-related restrictions and crime rates, as the number criminal incidents appear to decrease with an increase in restrictions and increase as restrictions are relaxed.

From 2017 to 2019, the RCMP have implemented changes in how incidents are defined, generally to reflect a victim-centered approach to crime reporting. This has resulted in the elimination of the category of “unsubstantiated” incidents, and a broader definition of what constitutes a “founded” incident. These changes have resulted in increases in the proportion of incidents recorded as “founded”. Due to these reporting changes, it is not possible to compare crime incident levels in 2019 and 2020 with previous years.

Table 8-3 Crime Incidents Under Canadian Criminal Code & other Federal Statutes (Number of Incidents), Kitimat, 2020

| | Q1 | Q2 | Q3 | Q4 |
|--|------------|------------|-------------|------------|
| Violent Criminal Code | 61 | 63 | 75 | 75 |
| Criminal Code Property | 75 | 90 | 103 | 77 |
| Other Criminal Code | 86 | 74 | 106 | 101 |
| <i>Controlled Drugs & Substances Act</i> | 5 | 15 | 24 | 9 |
| Federal Statutes | 7 | 22 | 15 | 0 |
| Provincial Statutes | 27 | 26 | 29 | 29 |
| Other Occurrences | 454 | 492 | 693 | 586 |
| Criminal Code Traffic | 16 | 25 | 21 | 26 |
| Total Founded Occurrences | 731 | 807 | 1066 | 903 |
| SOURCE: RCMP 2021 | | | | |

³⁴ Selected crime types include assaults, sexual assaults, assaults against a peace or public officer, uttering threats, robbery, dangerous operation cause death or bodily harm, impaired driving or impaired driving causing death or bodily harm, breaking and entering, motor vehicle theft, shoplifting, fraud / identity theft / identity fraud, and failure to comply with an order.

Table 8-4 Crime incidents under Canadian Criminal Code & other Federal Statutes (Number of Incidents), Terrace, 2020

| | Q1 | Q2 | Q3 | Q4 |
|--|-------------|-------------|-------------|-------------|
| Violent Criminal Code | 173 | 138 | 161 | 85 |
| Criminal Code Property | 441 | 387 | 340 | 204 |
| Other Criminal Code | 411 | 278 | 457 | 315 |
| <i>Controlled Drugs & Substances Act</i> | 15 | 7 | 14 | 6 |
| Federal Statutes | 2 | 0 | 4 | 4 |
| Provincial Statutes | 195 | 226 | 197 | 120 |
| Other Occurrences | 1401 | 1439 | 1797 | 1730 |
| Criminal Code Traffic | 35 | 29 | 39 | 27 |
| Total Founded Occurrences | 2673 | 2504 | 3009 | 2491 |
| SOURCE: RCMP 2021 | | | | |

8.5. SMR Feedback

The Community Health SMR met virtually in May 2020, September 2020, December 2020, and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. The following issues and topics were discussed during these meetings:

- Increase of urgent calls in Kitimat
- Increase of visits to Kitimat General Hospital (KGH) ER from people outside of the region
- Impact of COVID-19 on BCEHS recruitment and training processes
- COVID-19 response, protocols, and additional considerations for protecting and supporting the Project workforce and the community.
- Protection of vulnerable populations in the Project workforce and the community and the Worker Code of Conduct.
- Increasing role of mental health programming for Project workers
- Attrition of health service providers
- Kitselas held a milestone risk review workshop as a follow-up to the community-centered 2019 Rapid Health Impact Assessment.
- Vulnerability of Indigenous women and children and the Project's Gender and Cultural Safety Working Group.
- Mandatory Cultural Awareness Training for all Project workers
- Review NHA / BC First Nations Health Authority (FNHA) COVID-19 outbreak notification process for Indigenous communities.

Joint venture companies



- NHA management of COVID-19 outbreaks in the region, including the planning of the Facilities Outbreak Management Team (FOMT) in anticipation of any outbreak in a non-healthcare facility.
- Vulnerability of Indigenous populations to COVID-19.

During SMR meetings LNG Canada project staff answered questions related to the Project's policies and programs with respect to management of impacts to community health and health services.

Representatives of Indigenous communities expressed their concerns related to 2020 being a year of heightened anxiety and stress due to the COVID-19 pandemic and its affects on the community.

Appendix C summarizes follow-up actions that were developed during the SMR meetings, including those identified for LNG Canada, local government, service providers, and provincial agencies. No additional mitigation measures were identified for LNG Canada within the community health SMR meetings.

8.6. Discussion

The LNG Canada Project experienced two COVID-19 outbreaks at the Project site from November 29, 2020 to January 11, 2021, leading to a total of 72 confirmed COVID-19 positive cases. Both outbreaks triggered mobilization of a Facility Outbreak Management Team (FOMT) led by Northern Health. Both outbreaks were contained with the support of Northern Health and all 72 individuals have fully recovered. The LNG Canada Project worked closely with Northern Health over the duration of the outbreaks to reduce the draw on public resources and to internalize public health and health care services to the extent possible, through increased staffing of medical professionals and non-medical personal care attendants, and development of in-house protocols and capability.

In 2020, the Project limited direct demand on local health facilities, with workplace related medical incidents accounting for less than 1% of the ER visits at KGH. The number of ER visits at KGH decreased by 11% in 2020 compared to 2019, with a much higher proportion of unscheduled visits, compared to MMH, and a higher proportion of patients from outside the NHA. These ER usage patterns suggest that non-local workers, potentially including those from the LNG Project, were visiting the KGH ER for non-workplace related issues. In the same timeframe, medical clinics provided by the Project were visited by the workforce 5,3663 times to address non-occupational injury or illness. ER visits to MMH declined substantially in 2020, compared to 2019, attributed to the COVID-19 pandemic. The overall decline in ER visits at KGH and MMH are likely attributed to the COVID-19 pandemic.

The induced effects of regional economic development continue to have an affect on community health determinants in 2020, particularly the scarcity of affordable housing, which is evidenced in the ongoing high demand for emergency and temporary housing. Housing affordability has also affected the ability for communities in the region to recruit and retain social support workers and other health-related human resources, such as front-line ambulance staff (LNG Canada 2020). Recent KFA recruits are among DOK staff to take advantage of the DOK's rental subsidy program described in Section 5.6.

Joint venture companies



LNG Canada takes the safety and wellbeing of vulnerable groups and the broader community seriously and continues its commitment to ensure all workers sign the Worker Code of Conduct outlining respectful behaviours in the community both on and off shift, with consequence management as appropriate. The Project also supports the work of community organizations who provide essential services to vulnerable populations, while continuing to monitor the situation experienced by surrounding communities and service providers for identification of challenges and opportunities.



9. SMP Report—Community Amenities

9.1. Introduction

The Community Amenities SMP identifies actions to manage potential Project-related demands on community and land-based recreation resources and facilities. The plan summarizes how mitigation measures identified in the EAC application will be implemented, monitored, and measured for effectiveness. The plan also outlines objectives of mitigation measures, identifies parties responsible for mitigations, and the timeframes during which the mitigation measures will be implemented.

Objectives of the plan are to:

- Minimize project-related demand on community and land-based recreation resources.
- Encourage the responsible use of existing community and land-based recreation resources by the project-related workforce.
- Engage with Indigenous groups, the general public, recreation providers and external organizations, to assess and monitor potential change in demand on recreation resources.

Appendix A provides a list of stakeholders who participated in the Community Amenities working group meetings, including virtual participants.

9.2. Context

In March 2020, fitness and recreation centres experienced closures due to the COVID-19 pandemic (Government of BC 2021). In May 2020, fitness and recreation centres within the Northern Health region were approved for reopening, following enhanced sanitary and physical distancing measures (Government of BC 2021). WorkSafeBC provided guidelines for employers at fitness and recreational facilities, including gyms, yoga and dance studios, and recreation centres. Restrictions and bans on indoor high intensity group exercise (e.g., hot yoga, spin classes, aerobics), indoor low intensity group exercise (e.g., yoga, Pilates, Tai-Chi), adult indoor and outdoor team sports, and youth indoor and outdoor team sports were implemented by the provincial government (Government of BC 2021).

On March 20, 2020, BC Parks suspended its services and closed its facilities in most provincial parks (BC Parks 2021). The temporary measures included the suspension of services at marine parks, visitor centres, nature houses, playgrounds, washrooms, and day-use facilities (BC Parks 2021). All campgrounds, camping opportunities, and accommodations also closed and full refunds were issued to existing reservation holders. Most parks reopened in May/June 2020 (BC Parks 2021).



9.3. Project Reporting

In 2020, the Project implemented the following measures to limit its impacts on community amenities:

- Recreational facilities included in all workforce accommodation centres.
- Restrict non-local workers from using community resources.
- Limited the number of employees relocated to Kitimat with accompanying family.
- Non-local workforce hired on unaccompanied basis and provided accommodation at workforce accommodation centres. No LOAs paid.
- All workers required to complete Code of Conduct and cultural awareness training.
- Provide stakeholders with information on anticipated changes in resident populations attributable to the Project to facilitate planning for incremental demand for community amenities.

In 2020, the non-resident workforce stayed at Sitka Lodge, Annex 2, Crossroads Lodge, or Cedar Valley Lodge. These facilities provide their own recreational amenities.

By the end of 2020, 54 staff had relocated to Kitimat, accounting for approximately 1.6% of the total workforce (2020) (Table 9-1). This number of individuals (plus dependents) is unlikely to have adversely affected the provision of community amenities in Kitimat.

Table 9-1 Amenities Project Reporting

| Amenities Indicators | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|---------|---------|---------------|---------------|
| Project local (resident) workforce | 640 | 632 | 811 | 760 |
| Project non-local workforce—temporarily housed at Open Lodges in Kitimat (average beds) | 1520 | 1071 | 1226 | 341 |
| Project non-local workforce—temporarily housed on site at Cedar Valley Lodge (average beds) | n/a | n/a | 1298 | 2249 |
| Project staff re-located to Kitimat, presently staying in company provided housing | 45 | 45 | 43 | 54 |
| Accompanying Adults of relocated Project staff | 31 | 32 | not available | not available |
| Accompanying school-aged children of relocated Project staff | 21 | 28 | 28 | 25 |
| SOURCES: CIMP Reports (JFJV); LNGC-reported CLISMP data | | | | |



9.4. Community Reporting

In 2020, there were decreases in recreational facility attendance and hours in Kitimat (Riverlodge Centre, Sam Lindsay Aquatic Centre and Tamitik Sports Complex) and in the number of fitness program users in Terrace. This decline was due to facility closures and restrictions due to the COVID-19 pandemic. Between the 2019 and 2020 camping season, the number of total campers decreased for Ferry Island (Terrace) (Table 9-2). Radley Park experienced a 16% increase in the number of total campers for Q3 2020 when compared to Q3 2019 but the overall change for the number of total campers for Radley Park from 2019 to 2020 was minimal.

Table 9-2 Amenities Community Reporting

| Indicator | 2018 | 2019 | 2020 |
|--|------------|---------------|---------------|
| Riverlodge Community Program Attendance, [%YOY change] ¹ | 11,149 [-] | 11,562 [4%] | 5,295 [-54%] |
| Sam Lindsay Aquatic Centre + Tamitik Complex Attendance, [%YOY change] ² | 66,178 [-] | 106,547 [61%] | 45,852 [-57%] |
| Sam Lindsay Aquatic Centre + Tamitik Complex Hours, [%YOY change] ³ | 3,950 [-] | 7,327 [86%] | 3,714 [-49%] |
| Sportsplex Fitness Classes Attendance, [%YOY change] ⁴ | 3,005 [-] | 6,941 [131%] | 1,963 [-72%] |
| Radley Park Total Campers, [%YOY change] ⁵ | 5,355 [-] | 7,288 [36%] | 7,313 [0%] |
| Ferry Island Total Campers, [%YOY change] ⁶ | 4,289 [-] | 6,330 [48%] | 4,898 [-23%] |
| <p>NOTES: -:not reported SOURCES: ^{1,2,3,5}DOK 2021b, ^{4,6}COT 2021b</p> | | | |

9.5. SMR Feedback

The Community Amenities SMR met in September 2020 and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. The following issues and topics were discussed during these meetings:

- Overall decrease in total facility/program attendance in Kitimat (Riverlodge Recreation Centre and Tamitik Jubilee Sports Complex) and Terrace (Terrace and District Aquatic Centre and Sportsplex) due to COVID-19.
- Increase in municipal campground attendance.

Joint venture companies



During SMR meetings, LNG Canada project staff answered questions related to the Project's impact on community amenities. The availability of recreation facilities at Sitka Lodge, Annex 2, Crossroad Lodge, and Cedar Valley Lodge, where non-local Project workers were lodged during Q3 & Q4 2020, has minimized the Project-related demand for community fitness facilities. A concern was voiced regarding the potential draw on Kitimat's limited taxi service at the Project site and Cedar Valley Lodge, which would in turn decrease taxi availability for local residents. The Project team indicated it welcomes any suggestions for how to track and monitor data on taxi use.

The DOK provided an update on the Northwest BC Workforce Resident Attraction Initiative, which includes Prince Rupert, Terrace, and Kitimat. The initiative is intended to support smaller businesses that may be growing or otherwise losing staff to well-paying jobs with larger major projects in the region (LNG Canada, Port of Prince Rupert expansion, CGL, mine expansions).

Appendix C describes follow-up actions that were identified during the SMR meetings, including those assigned to LNG Canada, local government, service providers, and provincial agencies. No additional mitigation measures/follow-up items were identified within the community amenities SMR meetings.

9.6. Discussion

Between 2019 and 2020, community amenities in the region experienced significant declines in usage. The trends in lower community amenities usage rates can be attributed to facility closures and restrictions due to the COVID-19 pandemic. In 2020, there were no adaptive management measures undertaken related to the community amenities SMP. The availability of recreation facilities at Sitka Lodge, Annex 2, Crossroads Lodge, and Cedar Valley Lodge where non-local Project workers were housed during 2020, resulted in limited Project-related demand for community fitness facilities. LNGC acknowledges the concern regarding the Project's potential draw on Kitimat's taxi service and will work together with the DOK to identify opportunities to monitor taxi usage going forward.



10. SMP Report—Education

10.1. Introduction

The Education SMP identifies actions that manage effects on educational services (elementary, middle and high school). These actions consist of engaging with educational organizations to plan for increased demand related to the project workforce. This SMP summarizes how mitigations identified in the EAC application will be implemented, monitored, and measured for effectiveness. This plan also outlines objectives of mitigation measures, identifies parties responsible for implementing mitigation measures, and the timeframes during which the mitigation measures will be implemented.

The objective of the plan is to:

- Provide information regarding potential increase in demand for local educational services

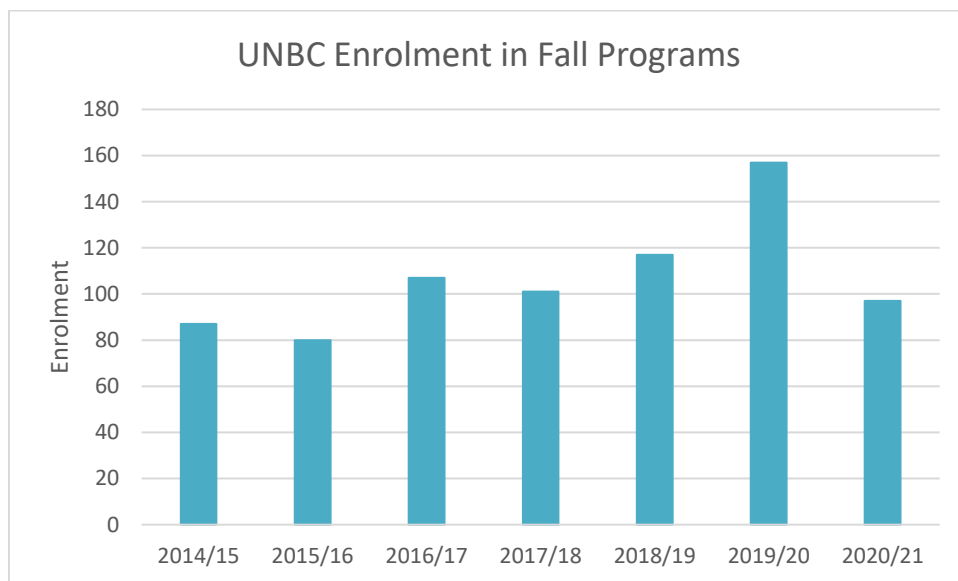
Appendix A provides a list of stakeholders who participated in the Education working group meetings, including virtual participants.

10.2. Context

The impact of COVID-19 on postsecondary institutions has been significant—many institutions have had to quickly adapt, shifting from in-person to virtual programming. Post-secondary enrolment for 2020/2021 has also experienced changes. The number of international student permits issued by Immigration Refugee and Citizenship Canada from June to August 2020 decreased by 58% compared with 2019, indicating a potential drop in international student enrolment for the 2020/2021 school year (Statistics Canada 2020e). An average of 20% of 17- to 24-year-olds who were attending school full-time in March indicated they would not be returning to school in the fall according to the Labour Force Survey, indicating a potential decrease in domestic student enrolment (Statistics Canada 2020e).

The University of Northern British Columbia (UNBC) announced an end to face-to-face classes on March 17, 2020, moving to alternative modes of course delivery and assessment, in response to the COVID-19 pandemic and following guidance provided by Northern Health, the PHO, and the Ministry of Advanced Education, Skills and Training (UNBC 2020). UNBC continued to deliver most of its classes using alternative modes of course delivery and assessment throughout the 2020/2021 academic year. Undergraduate and Graduate program enrolment decreased from the 2019/2020 to the 2020/2021 academic year (Figure 10-1). UNBC is preparing to have a full return to on-campus education in September 2021, based on the advice from the PHO (UNBC 2021a).

K-12 enrolment from 2010/2011 to 2020/2021 within the Coast Mountain School District (CMSD) has been in decline, with no correlation to major project construction activity (Ministry of Education 2021, LNG Canada 2020a). From 2019/2020 to 2020/2021 there was a 10% decrease in K-12 enrolment within the CMSD.



SOURCE: UNBC 2021

Figure 10-1 UNBC Fall Enrolment (Undergraduate and Graduate Programs)

10.3. Project Reporting

In 2020, the Project implemented the following measures to limit its effects on education facilities:

- Limited the number of employees relocated to Kitimat with accompanying family.
- Non-local workforce hired on unaccompanied basis and provided accommodation at workforce accommodation centres. No LOAs paid.
- All workers required to complete Code of Conduct and cultural awareness training.
- Provide stakeholders with information on anticipated changes in resident populations attributable to the Project to facilitate planning for incremental demand for education services.

In 2020, most of the Project workforce was either hired locally or working on an unaccompanied, rotational basis, provided with temporary housing at workforce accommodation centres. A very small proportion of the workforce is represented by relocated staff of LNG Canada, JFJV, contractors and subcontractors who are provided with temporary housing the Kitimat community for several months or several years. By the end of 2020, a peak of 54 Project staff had relocated to Kitimat, along with 25 school-aged children, who would account for approximately 1.3% of total K-12 enrollment at the CMSD (2020) (Table 10-1). The Project has not received any education-related concerns or complaints.



Table 10-1 Education Project Reporting

| Education Indicators | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|---------|---------|---------|---------|
| Project local (resident) workforce | 640 | 632 | 811 | 760 |
| Project non-local workforce—temporarily housed at Open Lodges in Kitimat (average beds) | 1520 | 1071 | 1226 | 341 |
| Project non-local workforce—temporarily housed on site at Cedar Valley Lodge (average beds) | n/a | n/a | 1298 | 2249 |
| Project staff re-located to Kitimat, presently staying in company provided housing | 45 | 45 | 43 | 54 |
| Accompanying Adults of relocated Project staff | 31 | 32 | n/a | n/a |
| Accompanying school-aged children of relocated Project staff | 21 | 28 | 28 | 25 |
| SOURCES: CIMP Reports (JFJV); LNG Canada-reported CLISMP data | | | | |

10.4. Community Reporting

In 2020, the CMSD reported a 10% decrease in student enrolment, with enrolment changes reflecting natural population change (Bath 2020) and potential impact from the COVID-19 pandemic. The CMSD forecasts a total 0.5% increase in K-12 student enrolment over the next 10 years (Ministry of Education 2020). Between 2019 and 2020, enrolment in University of Northern BC (UNBC) Terrace Campus programs decreased 37% (includes Bachelor/Grad programs) (UNBC 2021). This trend reflects changes in some program offerings (e.g., in 2020/2021 no course offerings in M.Ed., and other elective undergraduate courses) (UNBC 2021). It also reflects attrition from cohort-based education programs, including certificates and diplomas in education (Indigenous languages), and degree programs. For each program, cohorts of students transfer into UNBC from community colleges, approximately every two years (Bahr 2021). In 2020/2021, there was only one new Haisla language and culture cohort.

Table 10-2 Education Community Reporting

| Indicator | 2018 | 2019 | 2020 |
|--|-----------|------------|--------------|
| K-12 CMSD Student Enrolment, [%YOY change] ¹ | 4,327 [-] | 4,378 [1%] | 3,956 [-10%] |
| CMTN Enrolment – Terrace Campus, [%YOY change] ² | 1,961 [-] | 2,091 [7%] | 1,939 [-7%] |
| UNBC Enrolment, [%YOY change] ³ | 310 [-] | 361 [16%] | 226 [-37%] |
| NOTES: -:not reported SOURCES: ¹ Ministry of Education 2021, ² CMTN 2021, ³ UNBC 2021b | | | |

10.5.SMR Feedback

The Education SMR met in September 2020 and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. The following issues and topics were discussed during these meetings:

- Shifts to distributed learning models/virtual programming due to COVID-19

During SMR meetings LNG Canada project staff answered queries regarding the number of school-aged children that would enter the education system due to relocating staff, as well as Project-funded training programs.

Kitimaat Valley Education Society (KVES) indicated it is examining the feasibility of opening a Northwest Marine and Employment Training Centre to provide training and employment opportunities. It also noted that it is working on building its 5-year and 10-year plans around the operation of LNG Canada and requested that LNG Canada provide information on its accreditation process.

The limitations of childcare in the region were discussed at the Housing & Accommodations SMR meetings. It was noted that the Skeena Child Care Resource & Referral in Terrace tracks some information on competition data and disposable income for parents needing to pay for services (with respect to eligibility for childcare subsidies) and that the fee-for-service structure considers costs of operations and staff salaries and what is charged to parents.

Appendix C describes follow-up actions that were identified during the SMR meetings, including those assigned to LNG Canada, local government, service providers, and provincial agencies. No additional mitigation measures were identified for LNG Canada within the education SMR meetings.



10.6. Discussion

In 2020, the Project had limited the number of employees relocating to Kitimat with accompanying family, thus the Project had low direct effects on daycare facilities and K-12 educational services. The Project will continue to monitor the number of employees and accompanied dependents relocating to Kitimat and will share this information with education providers. No additional Project mitigation measures were identified.

Community data and SMR feedback indicated that there was little change in demand for K-12 education.

The Kitimat CDC indicated that major construction projects in the area have contributed to a loss in staff as childcare service providers are unable to compete with industry wages. Services providers also raised the need for a current assessment of cost of living/living wage for Kitimat as the shortage of qualified ECE staff in the region is likely because it is difficult to attract new staff from other communities because of the high rental costs and general high cost of living. Demand for childcare may be related to an increased availability and uptake of employment opportunities in the region due to generalized economic growth.

The COVID-19 pandemic also introduced additional challenges to childcare service providers in 2020 as facilities were unable to operate at their full capacities, expand childcare services due to COVID-19 restrictions, and fill staff vacancies when staff were sick or isolated due to an exposure.

11. SMP Report—Utilities

11.1. Introduction

The Municipal Utilities SMP identifies actions to minimize project-related demands on municipal utilities (sewage, waste, water). This plan summarizes how mitigation measures under the Plan will be implemented and monitored to confirm that the mitigation measures identified in the Application are effective in managing predicted effects.

Objectives of the plan are to:

- Manage the potential increase in demand for potable water and wastewater treatment within local communities.
- Minimize the potential increase in pressure on landfills and recycling programs within the Regional District of Kitimat-Stikine.

Appendix A provides a list of stakeholders who participated in the Utilities working group meetings, including virtual participants.



11.2. Project Reporting

In 2020, the Project implemented the following measures to manage waste and limit its effects on utilities:

- Implementation of waste management plan (solid waste, wastewater), send waste streams to approved facilities, avoiding use of the DOK municipal landfill.
- Dispose all hazardous waste and the majority of recycling materials at facilities outside the region.
- Secure short-term, controlled waste permits with maximum allowances to support disposal of Project non-hazardous solid waste at Forceman Ridge Waste Management Facility.
- Make Cedar Valley Lodge self-sufficient (to the extent practicable) with respect to potable water and wastewater treatment services, avoiding additional service demands on municipal water and sewer services.
- Limited the number of employees relocated to Kitimat with accompanying family.
- Non-local workforce hired on unaccompanied basis and provided accommodation at on site workforce accommodation Cedar Valley Lodge. No LOAs paid.
- All workers required to complete Code of Conduct and cultural awareness training.
- Provide stakeholders with information on anticipated changes in resident populations attributable to the Project to facilitate planning for incremental demand for utilities.

In 2020, the Project implemented a waste management plan to manage solid and liquid waste generated at the Project site, including hazardous waste, recyclables and non-hazardous solid waste, namely: garbage (municipal solid waste), construction and demolition waste (including treated wood), sludge cake, clean wood, soils and organics. Non-hazardous solid waste is removed by truck and disposed of at the Forceman Ridge Waste Management Facility (WMF) under controlled waste permits. Hazardous solid and liquid waste is disposed of at approved facilities outside of the region. The Project experienced temporary challenges with the segregation of organics and recyclables from solid waste generated at the Project work site and from Cedar Valley Lodge during the second half of 2020. This was due to COVID-19 requirements for social distancing and isolation measures increasing the use of to-go food containers and food consumption in rooms. Over the course of 2020, the Project implemented continuous efforts to improve the quality and accuracy of waste reporting to support CLISMP Project monitoring.

In 2020 the Project site and temporary office facilities received potable water shipped by truck. Cedar Valley Lodge became self-sufficient with its own potable water and wastewater treatment systems in 2020 Q3. Sludge cake generated from the Cedar Valley Lodge septic system was disposed at the Forceman Ridge landfill under controlled waste permit. On an exceptional basis to support unanticipated disruption of the Cedar Valley Lodge waste treatment process, wastewater was trucked and disposed at DOK facilities. A small quantity of onsite septage (from port-o-johns) was disposed at DOK facilities in 2020. The open lodges are responsible for their own waste disposal and purchase potable water and wastewater disposal services from the District of Kitimat.



There were no formal concerns / complaints related to utilities documented in 2020; however, the Project was in routine communications with RDKS throughout 2020 regarding controlled waste permits. In early 2021 Q1, the Project became aware of a range of concerns from RDKS regarding waste disposal at the Forceman Ridge WMF. In March 2021, some Project waste streams were redirected from Forceman Ridge WMF to alternative BC facilities outside of the region. Efforts continue to assess potential strain on regional landfills, including simplified interfaces between the Project and RDKS, improved Project reporting of key waste streams including those that consume landfill space, development of a Project inventory of waste generators (controlled waste permit holders) and development of robust Project waste projections to support RDKS planning needs.

Table 11-1 Utilities Project Reporting

| Utilities Indicators | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
|---|----------|----------|---------|---------|
| Weight (tonnes) of waste streams generated by Cedar Valley Lodge | n/a | n/a | 193 | 311 |
| Volume/weight of hazardous liquids sent to approved facilities (litres) | 20,650 | 30,330 | 123,713 | 223,435 |
| Quantity of hazardous solids sent to approved facilities ¹ | [74,320] | [97,965] | n/a | 14,144 |
| Quantity of non-hazardous solids sent to approved facilities ² | [4,992] | [7,472] | 1,423 | 3,297 |
| Influent flow rates from Cedar Valley Lodge wastewater treatment system (m ³ / day) | n/a | n/a | n/a | 10,762 |
| Effluent flow rates from Cedar Valley Lodge wastewater treatment system (m ³ / day) | n/a | n/a | n/a | 12,984 |
| Number of municipal utility related concerns or complaints | 0 | 0 | 0 | 0 |
| <p>NOTE: ^{1,2}For 2020 Q1 and 2020 Q2, Project reporting of solid waste was in metres cubed. For 2020 Q3 and 2020 Q4 Project reporting of solid waste was in tonnes SOURCES: CIMP Reports (JFJV); LNGC-reported CLISMP data</p> | | | | |

11.3. Community Reporting

Table 11-2 summarizes potable water daily consumption and wastewater flow for the City of Terrace in 2020; 2020 data for the District of Kitimat was not available at the time of this report. Data on average daily potable water consumption, peak potable water demand, and daily wastewater flow for 2020 for the District of Kitimat was not available at the time of this report. In Terrace between 2019 and 2020, average daily potable water consumption declined 6%, peak water consumption increased 3%, and peak wastewater flow increased 6% (COT 2021c).



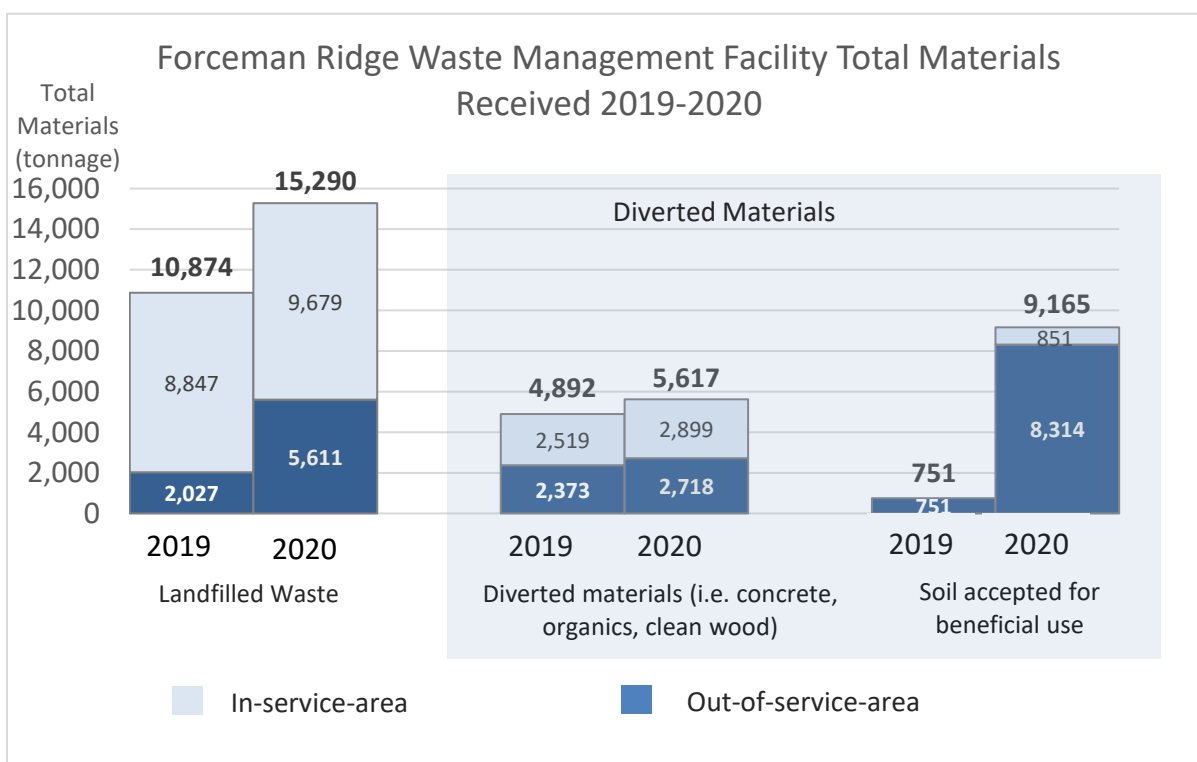
Table 11-2 also summarizes materials received at the RDKS Forceman Ridge WMF. Materials generated from industrial sources outside of the Terrace Solid Waste Service Area are referred to as out-of-service area (RDKS 2021a, Lavoie 2021). There are several contributors to the out of the service area material volumes, but the largest contributors are industrial work camps and construction sites related to LNG projects (RDKS 2021a). Forceman Ridge WMF accepts multiple non-hazardous solid material streams which are either disposed as landfill (air space consuming) or diverted for other means of disposal e.g., burning or chipping of clean wood or else used beneficially in the case of contaminated soil used as cover material on the landfill (non-air space consuming). In 2020, Forceman Ridge WMF received 30,071 tonnes of materials in total, representing an approximate 83% increase from 2019 (RDKS 2021b & RDKS 2021c). Out-of-service area users contributed 16,643 tonnes, or 55% of the total materials received in 2020 at Forceman Ridge WMF, an increase of 223%, from 2019 (RDKS 2021c). The overall increase in waste from out of the service area indicates that the Project is directly and indirectly influencing waste disposal at the RDKS Forceman Ridge WMF.

Table 11-2 Utilities Community Reporting

| Indicator | 2019 | 2020 |
|--|---------------|----------------|
| Kitimat Potable Water Average Daily Demand (m ² / day), [%YOY change] ¹ | 6,814 [0%] | - [-] |
| Kitimat Potable Water Peak Day Demand (m ² / day), [%YOY change] ² | 13,249 [13%] | - [-] |
| Kitimat Daily Wastewater Flow (m ² / day), [%YOY change] ³ | 5,300 [8%] | - [-] |
| Kitimat Peak Daily Flow (m ² / day), [%YOY change] ⁴ | 14,385 [0%] | - [-] |
| Terrace Potable Water Average Daily Demand (m ² / day), [%YOY change] ⁵ | 8,087 [4%] | 7,624 [-6%] |
| Terrace Potable Water Peak Day Demand (m ² / day), [%YOY change] ⁶ | 13,222 [-13%] | 13,664 [3%] |
| Terrace Daily Wastewater Flow (m ² / day), [%YOY change] ⁷ | 3,937 [-2%] | 4,171 [6%] |
| Terrace Peak Daily Wastewater Flow (m ² / day), [%YOY change] ⁸ | 8,437 [-8%] | 10,018 [19%] |
| Total materials received by Forceman Ridge WMF (tonnes), [%YOY change] ⁹ | 16,465 [31%] | 30,071 [83%] |
| Total landfilled waste at Forceman Ridge WMF (tonnes) [% YOY change], | 10,874 [22%] | 15,290 [41%] |
| Total diverted materials, excluding soil, received at Forceman Ridge WMF (tonnes),[%YOY change] | 4,840 [160%] | 5,617 [16%] |
| Total soil received for beneficial use at Forceman Ridge WMF (tonnes),[%YOY change] | 751 [-58%] | 9,165 [1,120%] |
| Out-of-Service Area total materials received by Forceman Ridge WMF (tonnes), [% YOY change] ⁹ | 5,151 | 16,643 [223%] |
| Out-of-Service Area waste received for landfill at Forceman Ridge (tonnes), [% YOY change] | 2,027 | 5,611 [177%] |



| Indicator | 2019 | 2020 |
|---|-------|----------------|
| Out-of-Service Area diverted materials, excluding soil, received at Forceman Ridge WMF (tonnes), [YOY change]] ⁹ | 2,373 | 2,718 [15%] |
| Out-of-Service Area soil received for beneficial use at Forceman Ridge WMF (tonnes), [YOY change]] ⁹ | 751 | 8,314 [1,007%] |
| SOURCES: ^{1,2,3,4} DOK 2020b, ^{5,6,7,8} COT 2021c, ⁹ RDKS 2019, RDKS 2021c | | |



SOURCES: RDKS 2019, RDKS 2021c

Figure 11-1 Forceman Ridge Waste Management Facility Total Materials Received 2019-2020 (tonnage)

Figure 11-1 provides a further breakdown of waste received at Forceman Ridge WMF in 2019 and 2020, representing waste sent to landfill, materials diverted from the landfill and soil used beneficially. Origin of waste is clarified as In-Service Area or Out-of-Service Area.



Landfilled Waste

Of the total 30,071 tonnes of materials received by Forceman Ridge WMF in 2020, 15,290 tonnes were disposed in the landfill (includes garbage, construction and demolition waste, sludge cake and other waste), representing a 41% increase in landfilled waste from 2019. Out-of-service area users accounted for 5,611 tonnes of landfilled waste in 2020, a 177% increase from out-of-service area landfilled waste in 2019.

Diverted Waste

The remaining 14,782 tonnes of waste received by Forceman Ridge WMF in 2020 were diverted from the landfill, including 5,617 tonnes of concrete, clean wood, septage, organic and other waste and 9,165 tonnes of soil used beneficially to support landfill management (does not consume air space). RDKS only accepts soil on an as needed basis and does not stockpile this material. Out-of-service area users contributed 11,032 tonnes of diverted materials received by Forceman Ridge WMF in 2020. This is further broken down as 2,718 tonnes of concrete, clean wood and organics, a 15% increase from 2019, and 8,134 tonnes of soil for beneficial use, a 1,007% increase from 2019.

Kitimat-Stikine Terrace Area Waste Management Facility Regulation Amendment Bylaw

In July 2020, an RDKS Works & Services Department Staff Report indicated major industrial activity outside the service area has created a situation where waste is being brought in that is consuming air space and shortening the life expectancy of the landfill, without covering the full costs of the service (RDKS 2020). The RDKS's concerns were brought to parties involved with controlled waste permits throughout Q3 and Q4 of 2020 (Lavoie 2021). Between July 2020 and February 2021 the RDKS progressed efforts to approve the Kitimat-Stikine Terrace Area Waste Management Facility Regulation Amendment Bylaw No. 744, 2020, which included, among other amendments, a definition for Industrial Premises, an increase to the out of Service Area surcharge from 25% to 50%, and an increase of tipping fee rates for materials that consume airspace from out of Service Area sources at Forceman Ridge WMF, including refuse and demolition and construction, both increased from \$110 to \$173 per tonne. The amendment bylaw was adopted on March 19, 2021.

The Forceman Ridge WMF has a total capacity of 1.5 million m³, with the next expansion planned for 2023 (RDKS 2021e, RDKS 2021f).

11.4.SMR Feedback

The Utilities SMR met in September 2020 and February 2021 to review Project and community monitoring data, discuss emerging issues and concerns, and identify actions. The following issues and topics were discussed during these meetings:

- Increase in potable water demand, wastewater flow and waste disposal in Terrace.

Joint venture companies



- Inclusion of influent and effluent flow rates data from the water treatment system of Cedar Valley Lodge in 2020, coinciding with the start-up of Cedar Valley Lodge operations.
- Segregation of organics and recyclable materials from Project municipal solid waste going to landfill.

During SMR meetings LNG Canada project staff answered queries regarding waste management and the Project's impact on community utilities. The Project addressed questions relating to the Project's site orientation, specifically waste segregation. The Project noted that, at the time, recycling and segregation of organics was included in the orientation package for Cedar Valley Lodge but was not included in the day-long Project work site access orientation session; however, orientation materials are continuously re-evaluated for improvement opportunities. Modifications have been made to the dining room and lodge itself to support waste segregation efforts. The Project also noted that it would follow-up on when/if it might be appropriate to add recycling practices into the in-class orientation.

RDKS indicated that the Forceman Ridge facility is experiencing an increase in requests by Project subcontractors to access its services and that it would be preferred if subcontractors applied under the broad/umbrella permits already in place with the Project. The Project noted that it would review which controlled waste permits are currently held for better line of sight and waste tracking and will work collaboratively with RDKS.

Although the Q3 & Q4 2020 utilities data (water, sewage) was not available from DOK, it is expected that the Project has indirectly contributed to an increase in demand through potable water consumption and wastewater disposal at Sitka Lodge, Annex 2, and Crossroads Lodge. In November 2020, all of LNG Canada's non-resident workers were transitioned into Cedar Valley Lodge and by December 2020, the Project was only using Cedar Valley Lodge to house the workforce and not using any of the open lodges in Kitimat. The Project continues to make Cedar Valley Lodge self-sufficient for potable water and wastewater treatment services.

Appendix C describes follow-up actions that were identified during the SMR meetings, including those assigned to LNG Canada, local government, service providers, and provincial agencies. No additional mitigation measures were identified for LNG Canada within the utilities SMR meetings.

11.5. Discussion

Prior to the opening of Cedar Valley Lodge, the Project indirectly contributed to an increased demand for utilities within the DOK through the potable water consumption and wastewater disposal by the Project workforce residing at Sitka Lodge, Annex 2, and Crossroads Lodge. Open lodge providers pay service fees for utilities consumption in Kitimat. The Cedar Valley Lodge is self-sufficient in both potable water supply and wastewater treatment and will thus decrease the Project's need for the municipal systems. A decrease in demand for DOK services should be noticeable after July 2020, when Cedar Valley Lodge became operational and again in December 2020, when all the Project's non-resident workers were moved to being housed at Cedar Valley Lodge. This cannot be verified due to data limitations at the time of report writing. In Terrace, there was a slight decrease in average daily flow for potable water in 2020 and a slight increase in peak daily demand, which could be attributed to population change and/or improvements in technology used to transport water, and a more environmentally conscious community.

Joint venture companies



Between 2019 and 2020, the RDKS Forceman Ridge Waste Management Facility experienced a substantial 41% increase in landfilled waste and an overall 83% increase in total materials received, including a significant quantity of soils received for non-air-space consuming-use in 2020. For the same time period, out-of-service-area waste disposal quantities increased across multiple material streams received at Forceman Ridge WMF, including waste going to landfill, diverted materials, and soils received for beneficial use. Overall demand for RDKS waste management services increased in 2020, due to the increase in industrial activity from outside the service area, while at the same time out-of-service area users provided RDKS with a source of soil needed to support waste management efforts. The Project is one of the main contributors of waste and other materials from out of the service area. In 2021, the Project began to adaptively manage this situation by sending some of its waste streams for disposal at other facilities outside the region, while seeking disposal solutions within the region that are acceptable to RDKS. Efforts are underway to assess potential direct Project strain on regional landfills, including simplified interfaces between the Project and RDKS, improved Project reporting of key waste streams including those that consume landfill space, improvement of waste segregation efforts, development of a Project inventory of waste generators (controlled waste permit holders) and development of robust Project waste projections to support RDKS planning needs.



12. Summary

During 2020, the COVID-19 pandemic profoundly affected both the demand for and delivery of infrastructure and services within the Kitimat and Terrace area. Beginning in March 2020 and continuing throughout 2020, in response to public health orders, businesses operated on a restricted basis, and there were reduced services at public facilities, travel restrictions, and changes in personal behaviours. These measures resulted in a dramatic decrease in the movement and activity of people within the Kitimat and Terrace area, including a 50% drop in air passenger traffic and 21% decline in hotel and motel occupancy. In the early stages of the pandemic, there was a substantial drop in demand for emergency services, such as policing and fire services, in both Kitimat and Terrace, reflecting the overall decline in the movement and activity of the populations. In the second half of 2020, however, demand for emergency services in Kitimat increased substantially – exceeding 2019 levels – while in Terrace the demand for policing and fire services remained depressed throughout 2020. Emergency room visits at both Kitimat General Hospital and Mills Memorial Hospital was lower in 2020, compared to 2019, reflecting a province-wide trend.

Virtually all service providers implemented various measures to cope with the pandemic. In response to requirements for social distancing, and personal and facility hygiene requirements, social housing providers operated at reduced capacity, yet experienced sustained 24/7 demand for emergency weather shelter services, which were temporarily extended as expansion shelters during the pandemic.

The hiring and retention of staff has remained an ongoing challenge for non-profit organizations providing such services as social and supportive housing, emergency shelters, and child-care. The high cost of housing in the Kitimat and Terrace area has created an affordability barrier to some employees at non-profit organizations, while the availability of higher wage industry jobs also reduces the pool of potentially interested candidates.

The pandemic may have tempered the market for rental accommodations in Terrace, as both the vacancy rates and average rents moderated slightly from 2019. In Kitimat, however, there was both a decline in rental vacancies and a substantial increase in average rental rates in 2020 compared to 2019.

The Project took distinct actions in response to COVID-19 with dramatic reductions in the site workforce throughout March and April 2020, reduced travel to and from the Project site and the implementation of new logistics and accommodations protocols to meet physical distancing and hygiene requirements. The workforce gradually increased from May 2020, reaching a peak of 4,105 persons in November 2020, as the Project undertook continuous enhancement of its protocols and measures to help manage the pandemic. In 2021 Q4 during the second wave of surging COVID-19 infections in BC, the LNG Canada Project experienced two outbreaks (72 confirmed cases) at the Project site. Working closely with Northern Health Authority, both outbreaks were contained, while the Project took efforts to reduce the draw on public resources and to internalize public health and health care services to the extent possible, through increased medical and care staffing and development of in-house protocols and capability.

Joint venture companies



Socio-economic monitoring data has shown that, in its second year of construction, the mitigation and adaptive management measures implemented by the LNG Canada project have largely limited the direct effects of Project construction on community infrastructure and services in the Kitimat and Terrace area. While no adverse effects directly attributed to Project activities were observed in 2020, the increase in out-of-service area solid waste directed to the Forceman Ridge facility was an area of concern identified by RDKS. As of March 2021, the Project is adaptively managing this situation by sending some of its waste to other facilities, while seeking disposal solutions that are acceptable to RDKS.

Looking towards the next several years of construction activities, the LNG Canada Project will continue to bring economic benefits to the region while continuing to manage its direct effects on community level infrastructure and services through implementation of effective mitigation measures and monitoring efforts, and adaptive management. Through its implementation of the CLISMP and the SMR, LNG Canada remains committed to engaging and working with community service providers, local governments, Indigenous Groups, and provincial government agencies to understand how economic developments are more broadly and indirectly affecting the supply and demand for infrastructure and services in the region, and to help identify potential measures for managing such changes.

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APPENDICES



Appendix A SMR WORKING GROUP PARTICIPANTS

Organizations represented in the table below participated in SMR working group sessions over the course of 2020. A complete list of organizations invited to participate in SMR working groups is identified and updated annually in the SMR ToR.

| SMR Working Group | Group | Participating Organization |
|------------------------------|-----------------------------|---|
| Housing and Accommodations | Project Team | LNG Canada, JFJV, Civeo, Horizon North, support (Stantec and Earncliffe) |
| | Indigenous Groups | Haisla Nation, Gitga'at First Nation, Gitxaala Nation, Kitselas First Nation, Kitsumkalum First Nation |
| | Local/ regional governments | District of Kitimat, City of Terrace, Regional District of Kitimat-Stikine |
| | Local service providers | Kitimat Community Services Society (Victim Services), Kitimat Community Development Centre, Tamitik Status of Women, Ksan Society, Kermod Friendship Centre, Terrace and District Community Service Society, Terrace Chamber of Commerce, Regional District of Kitimat-Stikine (Economic Development) |
| | Province of BC | LNG Canada Implementation Secretariat, Northern Health, Municipal Affairs & Housing, Ministry of Social Development and Poverty Reduction, Ministry of Children and Family Development, BC Housing, Attorney General and Housing |
| Traffic & Emergency Response | Project Team | LNG Canada, JFJV, support (Stantec and Earncliffe) |
| | Indigenous Groups | Haisla Nation, Gitxaala Nation, Kitselas First Nation, Kitsumkalum First Nation |
| | Local/ regional governments | District of Kitimat, City of Terrace |
| | Local service providers | Kitimat Fire and Ambulance Services (KFAS), Kitimat Community Services Society (Victim Services), YXT, Terrace Fire Department, Kitimat RCMP |
| | Province of BC | LNG Canada Implementation Secretariat, BC Emergency Health Services (BCEHS), ICBC, Ministry of Social Development and Poverty Reduction, Municipal Affairs and Housing, MOTI, WorkSafeBC, RCMP |

Joint venture companies



| SMR Working Group | Group | Participating Organization |
|---|-----------------------------|--|
| Community Health | Project Team | LNG Canada, JFJV, support (Stantec and Earncliffe) |
| | Indigenous Groups | Haisla Nation, Gitga'at First Nation, Gitxaala Nation, Kitselas First Nation, Kitsumkalum First Nation, Metlakatla First Nation |
| | Local/ regional governments | District of Kitimat, City of Terrace, Regional District of Kitimat-Stikine |
| | Local service providers | Kitimat Fire and Ambulance Services (KFAS), Kitimat Community Services Society (Victim Services), Kitimat Community Development Centre, Kitimat RCMP, Ksan Society, Tamitik Status of Women, Regional District of Kitimat-Stikine (Economic Development) |
| | Province of BC | LNG Canada Implementation Secretariat, Northern Health, Indigenous Groups Health Authority, Municipal Affairs and Housing, Ministry of Social Development and Poverty Reduction, Ministry of Health, BC Emergency Health Services |
| Community Amenities, Education, Utilities | Project Team | LNG Canada, JFJV, support (Stantec and Earncliffe) |
| | Local/ regional governments | District of Kitimat, City of Terrace |
| | Local service providers | Kitimat Valley Education Society, Coast Mountain School District, Kitimat Chamber of Commerce, Coast Mountain College, Terrace Chamber of Commerce, Regional District of Kitimat-Stikine Forceman Ridge Waste Management Facility |
| | Province of BC | LNG Canada Implementation Secretariat, Municipal Affairs and Housing |



Appendix B CLISMP METRICS

Table B-1 Project Reporting Metrics

| SMP | Data Provider | Project Metrics |
|--------------------------|------------------|---|
| Housing & Accommodations | LNG Canada, JFJV | <ul style="list-style-type: none"> Local (resident) workforce Project non-local (non-resident) workforce staying at Open Lodges (peak beds) Project non-local (non-resident) workforce staying at Cedar Valley Lodge (peak beds) Project non-resident workforce temporarily staying at Kitimat hotels or lodges (peak beds) Project non-resident workforce temporarily staying at Terrace hotels or lodges (peak beds) Project staff re-located to Kitimat, presently staying in company-provided housing Accompanying adults of relocated Project staff Accompanying School-aged children of relocated Project staff Number of housing related concerns or complaints (including hotel-related) |
| Traffic | LNG Canada, JFJV | <ul style="list-style-type: none"> Number of daily Project bus trips from YXT to Kitimat [avg. passengers /day] Number of daily Project bus trips from Terrace Park & Ride to Kitimat [avg. passengers /day] Number of daily Project bus trips from Kitimat and Kitamaat Village Park & Ride to Site [avg. passengers /day] Number of road transport-related incidents and near misses Number of Project personnel on commercial flights through airport per month Number of Project personnel on charter flights Provision of project transportation plans to transportation authorities Notifications to service providers and the public regarding scheduling of transportation equipment Number of meeting with transportation authorities on traffic management, congestion and road safety Number of traffic related concerns or complaints |
| Emergency Response | LNG Canada, JFJV | <ul style="list-style-type: none"> Number of ambulance service calls to site |

Joint venture companies



| SMP | Data Provider | Project Metrics |
|---------------------------------|------------------|---|
| | | <ul style="list-style-type: none"> • Number of fire department service calls to site • Number of RCMP service calls to site • Number of meetings held to coordinate and plan emergency response • Number of emergency response related concerns or complaints • Notifications to health authorities for occurrence of communicable illnesses/diseases • Percentage of workers who have signed the Worker Code of Conduct (launched May 2019) • Percentage of workers who have completed Cultural Awareness Training |
| Community Health | LNG Canada, JFJV | <ul style="list-style-type: none"> • Number of workplace occupational injuries and illnesses requiring treatment at local hospitals • Number of workplace non-occupational injuries and illnesses requiring treatment at local hospitals • Number of workplace injuries or illnesses requiring medevac • Number of recordable occupational injuries • Number of non-occupational injuries or illness • Number of notifications to health authorities for occurrence of communicable illnesses/diseases • Percentage of workers who have signed the Worker Code of Conduct (launched May 2019) • Percentage of workers who have completed Cultural Awareness Training • Number of community health related concerns or complaints |
| Community Amenities & Education | LNG Canada, JFJV | <ul style="list-style-type: none"> • Local (resident) workforce • Project non-local (non-resident) workforce staying at Open Lodges (peak beds) • Project non-local (non-resident) workforce staying at Cedar Valley Lodge (peak beds) • Project staff re-located to Kitimat, presently staying in company-provided housing • Accompanying adults of relocated Project staff • Accompanying School-aged children of relocated Project staff |

Joint venture companies



| SMP | Data Provider | Project Metrics |
|-----------|------------------|---|
| Utilities | LNG Canada, JFJV | <ul style="list-style-type: none"> • Weight (metric tons) of waste streams generated by Cedar Valley Lodge • Volume/weight of hazardous liquids sent approved facilities (litres) • Volume/weight of hazardous solids sent to approved facilities (metric tons) • Volume/weight of non-hazardous solids sent to municipal waste management facilities (metric tons) • Influent and effluent flow rates from Cedar Valley Lodge wastewater treatment system (m³ / day) • Number of municipal utility related concerns or complaints |



Table B-2 Community Reporting Metrics

| SMP | Data Provider | Community Data (Frequency) |
|--------------------------|--|---|
| Housing & Accommodations | Hotels / motels (STR Global) | Regional hotel/ motel occupancy rates (monthly) |
| | Airbnb postings | Range of units available (quarterly) and occupancy rates (daily) |
| | BC Northern Board of Real Estate (BCNREB); Multiple Listing Service; realtors | Average Residential Real Estate Prices and Units Sold (condos, houses) (monthly) |
| | Kitimat apartment landlords (Hillcrest, Kitimat Apartments, Oceanview, Kuldo Suites, Midtown Apartments); Facebook & Kijiji postings | Rental accommodations vacancy rate and average rental cost (monthly) |
| | Sitka Lodge and Annex 2 (Civeo) | Open lodge occupancy rate (monthly) |
| | Crossroads Lodge (Horizon North) | Maximum capacity (monthly) |
| | Tamitik Status of Women (TSW); Ksan House Society | % of nights full/ average shelter occupancy (monthly) # of bed-stays and # of turn-aways (monthly) |
| Traffic | BC Housing; M'akola Housing Society. | Affordable housing units occupied (monthly) Wait lists for affordable/supportive housing (monthly) Social housing unit count (annual) |
| | Northwest Regional Airport (YXT) | Terminal Volume (Commercial Passengers) (monthly) |
| | BC MOTI | Monthly Average Weekday Traffic (MAWDT) (monthly) |
| Emergency Response | Insurance Corporation of BC (ICBC) | Traffic Collisions Reported (monthly) |
| | RCMP North District | Total calls for service (monthly) Number of founded criminal incidents by crime type (monthly) |
| | Kitimat Fire and Ambulance Services (KFAS); Terrace Fire Department, Thornhill Fire Department | Number of firefighter response incidents (monthly) |
| | KFAS; BCEHS | Number of ambulance / medical related incidents (monthly) |
| Community Amenities | Statistics Canada | Crime rate (annual) Criminal Code of Canada (CCC) offences (annual) |
| | District of Kitimat (DOK); City of Terrace (COT) | Community program attendance (monthly) Recreation facility attendance and hours of operation (monthly) Fitness program attendance (monthly) |

Joint venture companies



| SMP | Data Provider | Community Data (Frequency) |
|-----------|---|---|
| Education | Kitimat Community Development Centre (CDC); Haisla Nation Council | Daycare registration, licensed spaces, and waitlist (quarterly) |
| | Coast Mountain School District #82 (CMSD); Independent Schools | Student enrolment (annual) Number of educators, including teachers, administrative and supporting staff (annual) |
| | University of Northern British Columbia (UNBC); Coast Mountain College (CMTN); Kitimaat Valley Education Society (non-profit; KVES) | Student enrolment (annual or by semester) |
| Utilities | DOK; COT | Potable water and sewage services average daily demand, peak day demand, and rated capacity (annual) |
| | Regional District of Kitimat-Stikine (RDKS) | Landfill demand, lifespan, and estimated population served (annual) |

Appendix C SMR ACTION ITEMS

| # | Working Group | Responsible Party | Action | Status |
|------------|-------------------------|---|---|--|
| 2020-Q1-1 | Housing & Accommodation | Ministry of Municipal Affairs and Housing | Share historical vacancy rate data for Terrace in Kitimat. | Closed 05/12/20. Data Summary distributed to SMR participants 06/05/20 |
| 2020-Q1-2 | Housing & Accommodation | LNG Canada Project Team | Clarify what support is available to local workers who cannot safely self-isolate at home. | Closed 05/16/20. Crossroads Lodge (Horizon North) has indicated isolation rooms could be made available to local JFJV or JFJV Subcontractor workers who cannot safely isolate in their own home. There is also an option in place for local LNG Canada and CPI workers to receive support through Northern Health or company resources. |
| 2019-Q2-9 | Community Health | FNHA (BC Indigenous Groups Health Authority) or Northern Health | Follow up on public health linkages between Northern Health and Indigenous Groups Health Authority. | Closed 12/08/20. Information provided by First Nation Health Authority at the December 8 th , 2020 SMR meeting. Summary included below. |
| 2019-Q3-17 | Community Health | Northern Health | Consider providing data from mobile unit service to support SMR monitoring needs. | Open 04/27/21. NHA following up on data request. |
| 2019-Q4-4 | Community Health | LNG Canada Project team | Incorporate workforce multiplier projections from District of Kitimat & City of Terrace. | Closed 08/27/20. Noted. Workforce multipliers will be considered in ongoing economic benefit analysis efforts for inclusion in CLISMP Annual Report. |
| 2019-Q4-5 | Community Health | Kitimat Fire and Ambulance Service (previously assigned to Northern Health) | Clarify where Project-level planning intersects with provincial- and community-level Hazard, Risk and Vulnerability Analysis (i.e., epidemics). | Closed 12/08/20. KFAS provided this overview at the December 8, 2020 SMR meeting. Summary included below. |



| # | Working Group | Responsible Party | Action | Status |
|------------|------------------------------|--|---|---|
| 2019-Q4-6 | Community Health | Kermode Friendship Society | Share reports with SMR participants regarding vulnerable populations. | Closed 08/27/20. Materials received by Project for consideration and for distribution to SMR participants |
| 2019-Q2-4 | Traffic & Emergency Response | RCMP and Fire Services | Re-opened action from Q2. Provide LNG Canada Project team with available information on traffic incidents by location. | Open 12/01/20. The Project Team is working with RCMP Traffic Services as well as Terrace Fire Dept to collect location-specific traffic incident data. |
| 2019-Q2-5 | Traffic & Emergency Response | DOK (District of Kitimat) Engineering Services | Re-opened action from Q2. Recommendation to DOK to assess need for traffic light at Nalabila / Hwy 37 intersection Update: DOK has secured funding for a Traffic Impact Assessment. Results will be available in several months. Action to remain open in the meantime. | Closed 04/27/21. The DOK traffic study has been completed spring 2021. The document will be used to prioritize infrastructure improvements and validate project traffic projections. Any priority infrastructure improvements will be communicated to District of Kitimat Mayor & Council during the 2022 Budget deliberation. |
| 2019-Q3-22 | Traffic & Emergency Response | LNG Canada Project Team | Capture learnings from recent efforts made to work with DOK around mitigating parking and local traffic impacts. | Closed 08/27/20. Summary of parking strategies in first year of construction provided below. |
| 2019-Q3-23 | Traffic & Emergency Response | LNG Canada Project Team | Recommendation to include Project road and air traffic projections in the data. | Closed 08/27/20. Project will regularly incorporate available road and air traffic projections in SMR meetings and reports. |
| 2019-Q4-7 | Traffic & Emergency Response | MOTI | Consider adding mileage markers along Highway 37. | Closed 08/27/20. MOTI confirms an inspection was carried out to ensure all markers are in place. |
| 2019-Q4-8 | Traffic & Emergency Response | LNG Canada Project Team | Capture hospital transfers in ambulance services data. | Closed 08/27/20. Hospital transfer data included in 2020 1Q/2Q report. |



| # | Working Group | Responsible Party | Action | Status |
|------------|--|-------------------------|--|--|
| 2020-Q1-3 | Traffic & Emergency Response | LNG Canada Project Team | Provide scenarios and projected charter flight numbers for 2020. | Closed 08/27/20. (related to Action 2019-Q3-23). Project will regularly incorporate road and air traffic projections in SMR meetings and reports. |
| 2019-Q4-12 | Community Amenities, Utilities and Education | LNG Canada Project Team | Assess City of Terrace Parks Department monitoring data as proxy indicators for other impacts e.g., needle / human waste cleanup. | Closed 08/27/20 Quantitative data related to park use impacts is not collected by COT. |
| 2019-Q4-14 | Community Amenities, Utilities and Education | LNG Canada Project Team | Support City of Terrace in development of municipal capacity metrics. | Open 02/16/21. Efforts underway with the City of Terrace to identify potential metrics that better reflect strain on community amenities e.g., parks |
| 2020-Q2-1 | Housing & Accommodations | LNG Canada Project Team | Incorporate available data on demand for social housing services which do not use BC Housing Applicant registry. | Open 04/27/21. Efforts underway to evaluate available data from housing organizations in the Terrace/Kitimat area. |
| 2020-Q2-2 | Housing & Accommodations | LNG Canada Project Team | Consider collecting data on median income or wages as eligibility criteria for BC Affordable Childcare Benefit (currently only families with household incomes up to \$111,000 or families with incomes exceeding \$111,000 who have children with special needs qualify). | Closed 12/01/20. Noted. Most recent median income data available is from 2016 census. Data from the 2021 census will be available in 2022. |
| 2020-Q2-3 | Housing & Accommodations | LNG Canada Project Team | Re-phrase roundtable discussion question regarding assessment of mitigation effectiveness. | Closed 12/01/20. Roundtable will focus on stakeholder observations and experience during the reporting period. The Project will continue to evaluate effectiveness of mitigations and determine any need for adaptive management each quarter, with efforts summarized in an annual report submitted to BC EAO as per CLISMP requirement. |



| # | Working Group | Responsible Party | Action | Status |
|-----------|------------------|-------------------------|---|---|
| 2020-Q2-1 | Community Health | LNG Canada Project Team | Suggestion to incorporate COVID-19 vulnerability into site orientation training, as many workers may not be aware of heightened vulnerabilities in remote Indigenous communities. | Open 10/16/20. |
| 2020-Q2-2 | Community Health | LNG Canada Project Team | Provide information on worker wellness programs (mental health, sexual health, recreation). | Open 10/16/20. |
| 2020-Q2-3 | Community Health | Northern Health | Consider providing Intensive Crisis Management Team data to assess changes in service demand. | Open 10/16/20. |
| 2020-Q2-4 | Community Health | LNG Canada Project Team | Suggestion to incorporate COVID-19 vulnerability into site orientation training, as many workers may not be aware of heightened vulnerabilities in remote Indigenous communities. | Closed 12/01/20. Daily efforts at Project site to educate and inform all workers of COVID-19 risks and evolving protocols. Ongoing efforts to increase worker cultural awareness through enhanced orientation materials and ongoing programs such as Indigenous speaker panels and Moose hide campaign. |
| 2020-Q2-5 | Community Health | LNG Canada Project Team | Provide information on worker wellness programs (mental health, sexual health, recreation). | Closed 12/08/20. An overview of the Project Mental Wellness plan was shared at the December 8,2020 SMR meeting. Details below. Sexual health Information and condoms are available at site medical clinics and will be made available at public restrooms in workforce accommodation centres. Sexual health consultation, evaluation and referral is managed within the normal scope of practice of Nurse Practitioners. |



| # | Working Group | Responsible Party | Action | Status |
|------------|------------------------------|-------------------------|--|---|
| 2020-Q2-6 | Community Health | Northern Health | Consider providing Intensive Crisis Management Team data to assess changes in service demand. | Open 04/27/21. NHA following up on data request. |
| 2020-Q2-7 | Community Health | LNG Canada Project Team | Follow up to provide air quality summary note. | Closed 12/01/20. A summary has been provided below. Please note Air quality is outside of CLISMP scope. |
| 2020-Q2-8 | Community Health | LNG Canada Project Team | Ensure emergency responders invited to follow up discussion on changing community mental health needs at next SMR meeting. | Closed 12/01/20. Noted. Mental health needs will continue to be a focus for the Community Health Working group. |
| 2020-Q2-9 | Traffic & Emergency Response | LNG Canada Project Team | Confirm if Traffic Impact Assessment (TIA) can be distributed to Working Group participants. | Closed 04/27/21. Most recent Traffic Management Plan (including TIA) was submitted to BC EAO in February 2021 but has not been posted to BC EPIC site. LNG Canada Project team has emailed the plan to Working Group members. An overview of the TIA will be presented at the May 4 SMR. |
| 2020-Q2-10 | Traffic & Emergency Response | LNG Canada Project Team | Assess availability of marine emergency response data around Hartley Bay. | Open 12/01/20. Information has been requested from Coast Guard Marine Communications and Traffic Services (MCTS) in Prince Rupert and will be shared with SMR participants if available. Note: marine traffic and emergency response are outside scope of CLISMP. |
| 2020-Q2-11 | Traffic & Emergency Response | LNG Canada Project Team | Represent mental health calls as a subset of 911 calls in community monitoring. | Open 12/01/20. Mental health related calls may be tracked by the North District 9-1-1 Dispatch Centre. The request for this data is currently being reviewed by RCMP in Prince George. |



| # | Working Group | Responsible Party | Action | Status |
|-----------|--------------------------|--|--|---|
| 2020-Q3-1 | - | LNG Canada Project Team | Follow up with Kermode Friendship Centre on Indigenous apprenticeship efforts and linkages to youth workforce development programs. | Closed 04/27/21. Meetings held on March 8 and 11, 2021. |
| 2020-Q3-2 | - | LNG Canada Project Team | Consider presenting Indigenous employment data stratified by geographical area (i.e., local and non-local). | Open 12/08/20. |
| 2020-Q3-4 | Housing & Accommodations | LNG Canada Project Team | Follow up with TSW, Kitimat CDC and Ksan Society for data illustrating housing affordability gap for clientele. TSW to share rental subsidy demand data for BC Housing Homelessness Prevention Program. | Open 04/27/21. TSW has shared data from HPP survey. Efforts underway to secure data from BC Housing, Kitimat CDC, and Ksan Society. Information on core housing need can also be derived from Census data and CMHC information on average shelter cost. |
| 2020-Q3-5 | Housing & Accommodations | Ministry of Child & Family Development | Working with LNG Canada, convene childcare service providers, AEST, Coast Mountain College to assess key drivers of childcare staffing shortages, awareness of available supports, and ways to support skills development. | Closed 04/27/21. Facilitated discussion hosted by LNG Canada and MCFD on March 3, 2021 to discuss regional childcare challenges. As a next step, LNG Canada has offered to support Q2 2021 capacity building for childcare staff in the Kitimat and Terrace area. "Administration & Management for Childcare" training offered through Westcoast CCRR. |
| 2020-Q3-6 | Housing & Accommodations | LNG Canada Project Team | Poll City of Terrace, housing service providers and Provincial housing agencies to assess daytime homeless service needs (e.g., drop-in shelter) in Terrace and available Provincial supports. | Open 12/08/20. |



| # | Working Group | Responsible Party | Action | Status |
|------------|------------------------------|----------------------------|---|---|
| 2020-Q3-6 | Community Health | Northern Health | Provide clarification of health information flow to Indigenous Groups communities, including COVID-19 notifications protocols. | Open 04/27/21. NHA following up on data request. |
| 2020-Q3-7 | Community Health | LNG Canada Project Team | Relay to CGL questions raised by Gitga'at regarding efforts to monitor worker behavior and COVID-19 safety measures in Smithers area. | Open 12/08/20. |
| 2020-Q3-8 | Traffic & Emergency Response | LNG Canada Project Team | Provide a definition of "road transport-related incidents and near misses." | Open 12/08/20. |
| 2020-Q3-9 | Traffic & Emergency Response | Kitimat Fire and Ambulance | Invite LNG Canada and other stakeholders to participate in regional HRVA discussion to support 2021 Emergency Management Planning. | Open 12/08/20. |
| 2020-Q3-10 | Traffic & Emergency Response | Terrace Fire Department | Work with KFAS to identify follow up actions building upon October Significant MVI planning meeting (e.g., ICS training, drill). | Open 12/08/20. |
| 2020-Q4-1 | - | LNG Canada Project Team | Follow up with Kitimat and Terrace Chambers of Commerce to provide additional information on localbusiness participation in Project supply chain. | Closed 04/27/21. Meeting held on April 7, 2021. |
| 2020-Q4-2 | Housing & Accommodations | DOK | Provide available information on Kitimat Cost of Living/ Living Wage. | Open 04/27/21. DoK does not have specific information available on cost of living/living wage. LNG Canada Project team will look at BC Cost of Living Calculator and bring back information at a future SMR meeting. |



| # | Working Group | Responsible Party | Action | Status |
|-----------|------------------------------|-------------------------|---|--|
| 2020-Q4-3 | Housing & Accommodations | LNG Canada Project Team | Consider broadening number of Kitimat childcare providers included in community monitoring. | Closed 04/27/21. LNG Canada Project team will request data from addition childcare providers in the Kitimat and Terrace area for future reporting periods. |
| 2020-Q4-4 | Community Health | Northern Health | Follow up on secondary transmission and epidemiological data for Q4 2020 LNG Canada site outbreaks. | Closed 04/27/21. NHA response provided below. |
| 2020-Q4-5 | Community Health | Northern Health | Follow up with Kitsumkalum Health Director on case and contact management capacity building engagements | Open 04/27/21. NHA following up. |
| 2020-Q4-6 | Community Health | LNG Canada Project Team | Consider applying a rate perspective to CLISMP data that considers population (incidence and prevalence) https://www.mdpi.com/2075-163X/11/1/30 | Open 04/27/21. Pending analysis of feedback survey findings on CLISMP monitoring metrics. |
| 2020-Q4-7 | Traffic & Emergency Response | LNG Canada Project Team | Address issue of workers (traveling via charter hangar) entering main Airport terminal despite COVID-19 restrictions. | Closed 04/27/21. A site bulletin was issued in February to remind workers that they cannot go into the main Airport and must stay in the charter terminal. The bulletin also restated that everyone must take the shuttle buses (no private rides to the airport), wear masks and continue to social distance. JFJV will be notified of any individuals who do not comply. The message was also conveyed to the airport restaurant that NW Regional Airport COVID-19 protocols do not allow restaurant service to people who do not have issued tickets to travel out of the commercial terminal. |



| # | Working Group | Responsible Party | Action | Status |
|------------|--|-------------------------|---|---|
| 2020-Q4-8 | Traffic & Emergency Response | LNG Canada Project Team | Share details from Traffic Incident Management Plan and Public Information Plan at the next SMR meeting. | Closed 04/27/21. Information will be presented by LNG Canada Project team at May 4th SMR. |
| 2020-Q4-9 | Traffic & Emergency Response | WorkSafe BC | Provide an update at an upcoming SMR session on changes to emergency scene management. | Closed 04/23/21. Information will be presented by WorkSafe BC at May 4th SMR. |
| 2020-Q4-10 | Traffic & Emergency Response | MOTI | Provide most recent shortcount data, as applicable. | Open 04/27/21. Available information will be collected and presented in Q2 2021 report. |
| 2020-Q4-11 | Traffic & Emergency Response | RCMP | Share Kitimat Resources for mental health training and supports for distribution to SMR participants. | Closed 04/27/21. Resource guide emailed to SMR participants by LNG Canada Project team. |
| 2020-Q4-12 | Traffic & Emergency Response | LNG Canada Project Team | Follow up to collect available overdose response call data from ambulance services in Kitimat and Terrace. | Open 04/27/21. Available information will be collected and presented in Q2 2021 report. |
| 2020-Q4-13 | Community Amenities, Utilities and Education | LNG Canada Project Team | Provide links to Terrace Shadow Population studies 2015 and 2020. | Closed 04/27/21. Links to Terrace Population studies emailed to SMR participants by LNG Canada Project team. |
| 2020-Q4-14 | Community Amenities, Utilities and Education | LNG Canada Project Team | Consider ways to improve education of site workforce and Cedar Valley Lodge residents on compliance requirements for waste segregation e.g., during site orientation. | Closed 04/27/21. Several discussions held 2020-21. City of Terrace will follow up with any recommended indicators. |
| 2020-Q4-15 | Community Amenities, Utilities and Education | LNG Canada Project Team | Follow up with Forceman Ridge to verify values reported in SMR Pre-read for Q3-Q4 2020 waste volumes received from LNG Canada Project. | Open 04/27/21. Project team has followed up with RDKS to seek confirmation on how data has been interpreted. |

Joint venture companies



| # | Working Group | Responsible Party | Action | Status |
|------------|--|-------------------------|--|---|
| 2020-Q4-16 | Community Amenities, Utilities and Education | LNG Canada Project Team | Follow up with Forceman Ridge to confirm all known controlled waste permits directly associated the LNGCanada Project. | Open 04/27/21. Efforts underway to consolidate inventory of waste generators and permits associated with LNG Canada Project. |
| 2020-Q4-17 | Community Amenities, Utilities and Education | LNG Canada Project Team | Follow up with KVES to share information on operational standards and accreditations to support KVES 5-year and 10-year plans. | Closed 04/27/21. Being addressed through ongoing discussions with KVES. |

Joint venture companies



2019-Q3-23 Summary of Parking Strategies Deployed in Kitimat and Terrace in 2019:

LNG Canada, JFJV and open lodge operators continue to work together with the District of Kitimat, Haisla Nation and Northwest Regional Airport on solutions to ensure local traffic and parking impacts are mitigated. This involves sharing information, addressing concerns, and responding with specific mitigations. Some examples of efforts deployed in 2019 include:

- District of Kitimat increased signage and modified by-law enforcement on Loganberry (in front of Sitka lodge) to mitigate street parking issues along with increased signage in all DOK parking lots to prevent overnight parking in unauthorized locations.
- Lodge operators have enforced parking restrictions with guests and encouraged use of shuttles.
- The Project established park and ride lot use by local Kitimat, Kitamaat Village and Terrace workers and issued short or long-term use permits. Lots are currently located at Mountainview and Konigas in Kitimat, in Kitamaat Village and at the Terrace airport. JFJV is currently working with the DOK to find an alternate location to replace the Mountainview location.
- Communications cascaded to the workforce to ensure compliance with parking rules, i.e., vehicles must only be parked in designated parking areas, notification of winter parking rules.
- Ongoing communication and collaboration with other project partners, such as BC Hydro and Coast Gas Link, on parking mitigation measures.

2019-Q2-9 Summary of public health linkages between Northern Health Authority (NHA) and Indigenous Groups Health Authority (provided by Indigenous Groups Health Authority and FNHA.ca):

In 2013 the Health Canada's Indigenous Groups and Inuit Health Branch (FNIHB)—Pacific Region formally transitioned the responsibility for the administration of federal health programs and services to the Indigenous Groups Health Authority (FNHA) in BC (FNHA n.d.). The FNHA is part of a unique health governance structure which includes the Indigenous Groups Health Council (FNHC; political advocates), Indigenous Groups Health Directors Association (supports FNHA health directors throughout BC), and FNHA (which implements the programs and services). The Indigenous Groups Health Authority plans, designs, manages, and funds the delivery of Indigenous Groups health programs and services in BC, and does not replace the role or services of the Ministry of Health and Regional Health Authorities (FNHA n.d.). Within Northern BC, the governance structure is the Northern Regional Table, which is made up of three representatives from each sub-region (one from the North East, North Central, North West), each with a representative from the Health Council, Health Directors Association, and Community). The Northern Regional Table works closely with the senior executive team from NHA to create joint plans and joint actions throughout the course of the year.

Joint venture companies



FNHA and NHA are in the process of refreshing the Northern Partnership Accord (originally signed in 2012). Key elements include how the two organizations will work together and collaborate on initiatives such as racism within healthcare, integration of cultural practices in workplaces, collaboration around COVID-19 response, primary care, mental wellness and substance use, population and public health, maternal and child health, as well as traditional wellness. FNHA is led by seven directives, the first being that work is community-driven and Nation-based, therefore First Nation communities set and determine the priorities regarding health services. There are a variety of governance events, including work done by the Engagement Team with communities around what their priorities are and how to best address them.

2019-Q4-5 Hazard, Risk and Vulnerability Analysis (HRVA) planning summary (provided by Kitimat Ambulance and Fire Service):

Hazard risk and vulnerability analysis at a community level identifies relevant hazards, risks, and vulnerabilities (e.g., response to natural disasters) and determines preparedness, mitigation, response, and recovery plans to address these at community level. When industry is part of the community, industry level planning and community level planning should go hand in hand.

The District of Kitimat (DOK) has already identified many of these risks, hazards, and vulnerabilities, and conducts its own emergency planning each year. The expectation is for both industry and the DOK to identify and work together to manage industry and community activities that could strain infrastructure or where there is the potential for activities to cause harm to the local population or critical infrastructure. The DOK and emergency responders need to understand what industry and other agencies are doing, not only at a planning level but also at a mitigation and response level.

Effective planning requires information sharing. The Emergency Operation Centre (EOC) brings everyone with a vested interest together to have open discussion and understanding of the direction of each agency. In the instance of a wildfire, the DOK and BC Wildfire Service work together through a Unified Command. In the case of pandemic planning and response, there need to be linkages between Industry level planning and District level planning (including public health and safety authorities such as Northern Health). The Province also comes in and provides support to the community.

The structured DOK HRVA planning process includes an emergency management plan which identifies hazards, risks and vulnerabilities, and looks at the impacts that could be created or brought forth to the community. This is identified on an annual basis to meet the changing community demands and risks. The HRVA is planned in conjunction with Industry emergency response plans and includes evaluating the resources and expertise required for an emergency response.

Joint venture companies



2020-Q2-7 Air Quality Summary (provided by LNG Canada):

Regional Air Quality Monitoring

Current air quality data for the region can be found at the following link, and includes both a current data overview of ambient pollutant concentrations and meteorological data, and data from individual monitoring stations:

[BC Government Environmental Protection and Sustainability: Coastal Air Zone Data.](#)

Kitimat Airshed Group

LNG Canada is committed to participate in the recently established Kitimat Airshed Group (KAG). The Project is supportive of KAG's mission to provide air quality education for public awareness of timely, representative, and scientific monitoring data that has been reviewed and promotes clean air. LNG Canada shares the KAG's vision of enabling public access to, and understanding of, trusted air quality information from a representative monitoring network, which informs decisions and prioritizes the overall health, well-being and safety of people and the environment.

In 2021, the KAG intends to review the existing Kitimat ambient air quality monitoring network based on scientific considerations such as meteorology and geography, ensuring that the network provides a representative data set for current and anticipated future emissions of all relevant contaminants. This review will examine current monitoring in the region and will identify any gaps in the data being collected. LNG Canada is committed to participating in joint monitoring through the KAG during LNG Canada Plant commissioning, start up and operations.

2020-Q4-4 Secondary transmission and epidemiological data for Q42020 LNG Canada site outbreaks:

NH only collects surveillance data relevant to the management of non-outbreak associated COVID-19 cases. In the event of a cluster or outbreak, additional data may be collected to help prevent further transmission. NH only releases summative information on clusters and outbreaks publicly and only includes those details that will be helpful in the management of clusters and outbreaks. In particular, directionality of transmission is rarely relevant to the management of a cluster or outbreak and unlikely to be released publicly for privacy reasons of all persons involved.