

It's Community That Matters!

Tracking Social and Economic Transformation of Kitimat, BC, 2011-2016

Laura Ryser and Greg Halseth

Table of Contents

Page Number

ACKNOWLEDGEMENTSAvailability	
Contact Information	_
GLOSSARY	4
IT'S COMMUNITY THAT MATTERS: EXECUTIVE SUMMARY	5
INTRODUCTION	9
POPULATION CHANGE	12
INFORMATION	13
ECONOMIC DEVELOPMENT	15
EMPLOYMENT	18
HOUSING	20
EDUCATION	25
PHYSICAL INFRASTRUCTURE	27
LOCAL GOVERNMENT	30
RECREATION	37
ENVIRONMENT	39
SAFETY	40
SERVICES	42
TRANSPORTATION	50
VOLUNTARY SECTOR	52
APPENDIX A: METHODOLOGY	_
APPENDIX B: INTERVIEW MATERIALS	58
APPENDIX C: INDUSTRY COMMUNITY ADVISORY COMMITTEES	-
RESOURCES	70
REFERENCES	7 1

ACKNOWLEDGEMENTS

From 2012 to 2016, our research team visited Kitimat to conduct interviews tracking the social and economic changes being experienced in Kitimat. We wish to thank all of the residents, community groups, business members, service providers, industry leaders, policy makers, and municipal staff who took the time to help out and to answer our many questions.

Previous reports about this project include:

- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #4 – May 2016;
- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #3 – January 2015;
- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #2 – January 2014;
- Methodology Report: January 2013;
- A Review of Socio-Economic Characteristics in Kitimat: January 2013;
- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #1 – January 2013; and
- An Inventory of Community and Economic Development Strategies and Plans: January 2013.

Special thanks to our local partners and organizations who provided advice and input for this work including staff at the District of Kitimat, the Kitimat Chamber of Commerce, and the Kitimat Community Development Centre. In particular, we would like to thank Margaret Warcup, Gwen Sewell, Trish Parson, and Martin Gould for all of their advice and for collecting and providing us with additional information. We would also like to acknowledge the cover photo credit that was provided to us by the District of Kitimat.

We wish to thank Julia Good, Danielle Patterson, Alishia Lindsay, and Gerald Pinchbeck, who worked tirelessly on this project over the years. We would also like to thank Don Manson for providing team logistical support during the field work.

Funding for this project was provided by the Canada Research Chair in Rural and Small Town Studies.

Laura Ryser and Greg Halseth Prince George Winter 2017

Availability

Copies of this report have been provided to the Kitimat Public Library, the District of Kitimat, the Kitimat Chamber of Commerce, the Kitimat Snowflake Seniors' Centre, and the Kitimat Community Development Centre. Copies of the report have also been provided to all participants. Reports have also been posted on the website of the Canada Research Chair in Rural and Small Town Studies: http://www.unbc.ca/greg-halseth/canada-research-chair-rural-and-small-town-studies.

Previous reports about this project include:

- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #4 – May 2016;
- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #3 – January 2015;
- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #2 – January 2014;
- Methodology Report: January 2013;
- A Review of Socio-Economic Characteristics in Kitimat: January 2013;
- Tracking the Social and Economic Transformation Process in Kitimat: Interim Summary Report #1 – January 2013; and
- An Inventory of Community and Economic Development Strategies and Plans in Kitimat: January 2013.

Contact Information

For further information about this topic and the project, feel free to contact Greg Halseth:

Greg Halseth
Canada Research Chair of Rural and Small Town Studies
Professor, Geography Program
University of Northern BC
3333 University Way
Prince George, BC
V2N 4Z9

Phone: 250-960-5826 Fax: 250-960-6533

E-mail: greg.halseth@unbc.ca

Website: http://www.unbc.ca/greg-halseth/canada-research-chair-rural-and-small-town-

<u>studies</u>

GLOSSARY

CAO Chief Administrative Officer

CDC Community Development Centre

CMHC Canada Mortgage and Housing Corporation

EDO Economic Development Officer

FIFO Fly-in / Fly-out

KCSS Kitimat Community Social Services

KEDA Kitimat Economic Development Association

KMP Kitimat Modernization Project

KVI Kitimat Valley Institute LNG Liquefied Natural Gas

MLA Member of the Legislative Assembly

MP Member of Parliament
NHA Northern Health Authority

NW Northwest

NWCC Northwest Community College

PTI Group is now Civeo (work camp provider)
RAP Rental Assistance Program (BC Housing)

RCMP Royal Canadian Mounted Police

RTA Rio Tinto Alcan

SAFER Shelter Aid for Elderly Renters
SART Sexual Assault Response Team

SO² Sulphur dioxide

TSW Tamitik Status of Women

UK United Kingdom

IT'S COMMUNITY THAT MATTERS: EXECUTIVE SUMMARY

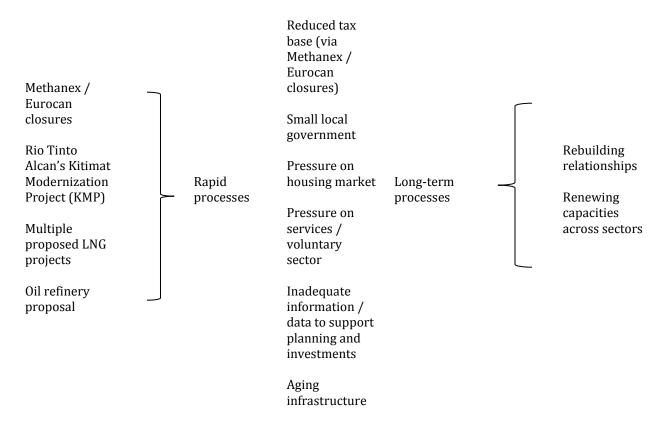
Kitimat is a community with a long history of industrial investment. With several large-scale industrial projects being constructed or proposed in Kitimat, there have been several longstanding concerns for this suddenly rapidly growing community:

- How to maximize the benefits and long-term legacies from large-scale industrial investments in order to better position the community moving forward;
- How to mitigate the pressures for residents during construction periods; and
- With limited resources, how is the local government, business sector, and other community organizations going to secure the resources needed to support development.

In this new era of industrial development, the concern is that small towns are being asked to assume more of the costs of supporting massive industrial projects that will contribute to the provincial and national economy for many years to come. Below, we recognize that it is the strength, capacity, and resilience of the community that matters as an analogy for the pressures stakeholders faced during the social and economic transformation of Kitimat. In essence, there were many rapid pressures and processes taking place in a context where stakeholders must concomitantly work through long-term processes of rebuilding relationships, as well as working to renew their assets and capacities. The early stages of this rapid growth were forecast in a context where the community was experiencing a population loss from the closure of the Methanex plant and the Eurocan pulp and paper mill. In addition to Rio Tinto Alcan's (RTA) Kitimat Modernization Project, however, there were several LNG, pipeline, and oil refinery proponents engaged in project planning and site preparation work.

This period of rapid growth from 2011 to 2016 prompted a complex set of pressures for community stakeholders. With a reduced tax base and a small compliment of staff, the District of Kitimat was faced with difficult challenges to keep pace with the demand for development permits and inspections, meetings with industry proponents and investors, renewing physical infrastructure, renewing policies and processes, and responding to work with an overwhelmed social service and voluntary sector. The immediate need for a large, high skilled labour force prompted a rapid influx of mobile construction workers. Even though several work camps were put in place, housing pressures (both rental and real estate prices) increased rapidly, leading to 'renovictions', an increase in at-risk and absolute homelessness, and an out-migration of residents. At the same time, there were limited senior government investments to renew key aging infrastructure assets to support heavy industry traffic. There has also been a lack of adequate information and available data to support strategic planning and investments in the community.

Impacting Community Capacity to Respond to Rapid Growth



Despite many of the pressures that have been experienced throughout this period of rapid growth, key actions have helped to better position the community moving forward. By the end of the first wave of new industrial investment through RTA's KMP, Kitimat has been able to renew and diversify its housing stock, renew some recreational amenities to improve the quality-of-life for residents, fund and complete infrastructure studies, improve the skills and experiences of the local workforce, and renew several critical policies and programs. These changes have been hard fought by committed stakeholders with limited support from senior government agencies and stakeholders. Below, a brief summary is provided about the key actions and issues identified for different stakeholders throughout the tracking study.

Local Government

- Adopted new bylaws to reduce property taxes for renovated commercial buildings.
- Renewed fire bylaws and inspection processes in preparation for future large-scale industrial development projects.
- Several actions were undertaken to address housing pressures, such as the
 development of the Advisory Housing Committee, the completion of a Housing Needs
 Assessment, the development of an emergency cold weather response shelter, the
 adoption of a secondary suite incentive program, and the adoption of a density
 bonusing scheme to obtain amenity contributions for an affordable housing fund.
- Developed a \$200,000 emergency fund for community social service agencies.

- Industry use of recreational facilities for worker activities and industry meetings increased revenues during the peak construction of the KMP.
- Upheld plebiscite results to oppose the Enbridge Northern Gateway Projected based on the Joint Review Panel's (JRP) findings and recommendations.

Community Organizations

- Community organizations faced an increased demand for supports from an influx of unemployed people looking for work, as well as from long-term residents who struggled to keep pace with the rising cost of living.
- Increased demands for supports to address housing, poverty, employment, childcare, immigration, and safety pressures were experienced throughout the tracking period.
- The service sector played a vital role to develop and engage in the Tier Two dialogue group that largely consists of non-profit leaders and service agencies to identify and monitor emerging issues and engage with industry, local government, and senior government stakeholders.
- Many groups coordinated supports and expanded activities through the Interagency Committee and Kitimat's Advisory Housing Committee.
- Community organizations struggle with staffing issues as they were unable to compete with industry wages in recruiting / retaining new professionals. High housing costs are also impacting the ability to recruit new labour.
- More investments are needed to support the training and development of service sector professionals to support long-term development and quality-of-life.
- Strategic social infrastructure investments are needed to support the coordination and resiliency of community groups.
- Accordion (flexible) funding is needed to support community organizations through boom and bust periods.

Industry and Business

- Some commercial assets were renovated. Small businesses and contractors also started to develop succession plans and long-term development strategies.
- Business leaders are now better positioned to anticipate key challenges stemming from staff turnover and customer volumes and demands.
- The local workforce has gained experience working for different contractors. This
 experience has better positioned them to engage with future industry projects locally,
 regionally, and abroad.
- Rio Tinto Alcan and LNG Canada entered partnerships with local and regional institutions to provide opportunities for trades training.
- Bechtel provided workers with information packages to promote physical and mental health wellness.
- Investments must continue to strengthen the development of the next generation of trades workers.

- Despite a number of successful joint ventures between local businesses and the Haisla or non-local companies, a number of local businesses are still challenged to engage in this new era of industrial development due to the extent of operating capital, labour, and scale of work required by these large projects.
- Businesses need to invest in legal structures to pursue joint ventures and benefit from large-scale industrial development.
- Small businesses continue to struggle to compete with industry wages.
- Distant head offices of industry and business do not always understand the pressures associated with the high cost of living and competition for labour in Kitimat.
- Rio Tinto Alcan allocated a cruise ship to alleviate housing pressures in the community.
- Difficulties remain in nurturing the development and attraction of new businesses due to aging infrastructure, competition for labour, and high lease rates.
- Economic diversification could be strengthened through expanded export strategies.
- There was an influx of unemployed people looking for work who did not understand industry hiring requirements and hiring processes.
- Rio Tinto Alcan has provided with District of Kitimat with 156 acres of waterfront land to support future development.

Senior Government

- The Province of BC leased Crown land to the Haisla to support industry development through the Haisla Framework agreement.
- The Province sold the former hospital lands in Kitimat to the Haisla to support economic development opportunities.
- BC Housing provided support for the emergency cold weather response shelter.
- The Homeless Outreach Program was equipped with flexible criteria to enable a range of housing needs to be addressed.
- The Ministry of Innovation, Science, and Economic Development / Western Economic Diversification Canada provided federal funding to upgrade Kitimat Valley Institute (KVI) facilities.
- BC Skills for Jobs Blueprint provided funding for a mobile training unit.
- Investments have been made to improve the Northwest Regional Airport.
- Despite funds for infrastructure planning, there has been limited funding to upgrade and replace key infrastructure assets (i.e. the Haisla Bridge, port) in Kitimat to support construction activities.
- Local and regional transportation investments need to be improved to support broader workforce and residential needs.
- Lengthy processes mean that many senior government responses are delayed; leaving community stakeholders without urgent support during the early and middle stages of rapid growth.

It's Community That Matters: Tracking Social and Economic Transformation of Kitimat, 2011-2016

INTRODUCTION

Kitimat has a long history of industrial investment; rooted in the early 1950s when the Aluminum Company of Canada (Alcan) selected the area as a site for its new aluminum smelter. Over the next decades, the industrial base diversified through investments in Eurocan's pulp and paper mill (1967) and Ocelot's methanol and ammonia production (1980s). Global competition and restructuring pressures, however, prompted the closures of both Methanex (2005) (formerly Ocelot) and Eurocan (2010) – a direct loss of 662 jobs. Industrial investments that Alcan set in place were also aging and losing their competitive edge in global production schemes shaped by more efficient technological and industrial infrastructure investments.

New Era of Industrial Investment

The era of economic restructuring and decline for Kitimat between the 1980s and 2011, however, has been replaced with rapid change and transition, worker in-migration, intense economic and industrial investments, and even more remarkable speculation around future economic and industrial investment. In 2010, Rio Tinto Alcan (RTA) announced that it would modernize its aluminum smelter at an estimated cost of \$4.8 billion in order to increase production by more than 48% (Rio Tinto Alcan, 2011a). It would require roughly 3,500 construction workers, reaching peak construction in 2014, and would lead to approximately 1,000 permanent jobs in the new smelter. This project, however, is just one component of a new era of industrial investment proposed for the area. Kitimat is the designated port for at least two proposed oil / bitumen / condensate pipeline projects. It is also one of several proposed ports for BC's liquefied natural gas (LNG) industry (Petroleum Human Resources Council of Canada, 2013), with proposed investments of all industrial projects totalling more than \$73 billion. The potential scale of industrial investment is almost unprecedented. To situate the scale of these investments, the total costs for the Sam Lindsey Aquatic Centre that re-opened in Kitimat in 2009 amounted to \$15 million. Therefore, the scale of RTA's investment in the Kitimat Modernization Project (KMP) alone equated to roughly 320 aquatic facility projects. This scale of investment can be difficult for both local government and broader community stakeholders to understand.

When major industrial investments come to small communities, the local economic and social impacts can be significant and transformative but also incredibly challenging as community stakeholders work to secure the resources and supports needed to mitigate the pressures associated with rapid growth, as well as to maximize the legacy from these large-scale industrial

developments. Over the past five years, Kitimat has been experiencing a number of industrial construction projects that will change and renew the local economy. These construction projects will also impact and change the community. This report presents the key findings from our tracking study of the economic and social transformation processes in Kitimat.

The research involves two aspects. The first is the tracking of available and emerging data on industrial projects, temporary and permanent workforces, and various other community economic and social development topics identified as important during these sorts of renewals. The second is the use of interviews with people involved in a range of community sectors to review how economic and industrial activity is reshaping and changing the community, with the goal to track changes, pressures, and actions relevant to decision-making over community planning and infrastructure investments.

Year	Industry Projects in Kitimat, 1951-2015
1951	Construction for Alcan's Kitimat project begins.
1953	Kitimat Works Wharf completed. Powerhouse for Kitimat project completed.
1954	Kitimat smelter ready for production.
1967	Construction of Eurocan Pulp and Paper.
1982	Ocelot establishes methanol plant in Kitimat.
1987	Ocelot builds ammonia plant in Kitimat.
1992	Methanex emerges from 3 corporate entities created from splitting of Ocelot.
1993	West Fraser acquires Eurocan.
2000	Alcan closes Kemano townsite.
2005	Methanex closes plant; enters agreement with Encana to provide condensate terminal services.
2006	Alcan announces plans to modernize Kitimat smelter.
2007	Rio Tinto acquires Alcan.
2008	Rio Tinto awards \$200 million contract to Bechtel for the Kitimat Modernization Project.
2010	Eurocan closed by West Fraser.
	Kitimat Modernization Project begins.
	Haisla approves land leases for LNG; sells equity right for \$50 million to KMLNG.
2011	West Fraser sells wharf / related assets to Rio Tinto Alcan.
	Rio Tinto announces FID for KMP; construction begins. RTA applies to complete Kemano tunnel.
	KMLNG Operating General Partnership agreement to purchase Eurocan industrial site from West Fraser.
	Royal Dutch Shell purchases Methanex property.
2012	David Black announces proposal to develop oil refinery / pipeline project.
	KMP construction village completed. Kemano Tunnel project begins.
	LNG Canada announces proposed project.
2013	LNG Kitimat obtains building permit for camp at Eurocan pulp and paper site.
	Joint Review Panel supports Enbridge Northern Gateway Pipeline subject to 209 conditions.
2014	LNG Canada enters agreement to lease wharf / associated land with Rio Tinto Alcan.
	Kitimat LNG has a 600 person work camp on the former Eurocan Pulp and Paper mill site.
	Federal government accepts Joint Review Panel's recommendation on the Enbridge Northern Gateway
	Pipeline proposal.
	KMP enters peak construction. Delta Spirit floating lodge acquired to house up to 450 workers.
2015	Rio Tinto Alcan's Kitimat Modernization Project is completed. LNG projects have been postponed.

Source: Methanex 2014; Northern Sentinal 1982-2015.

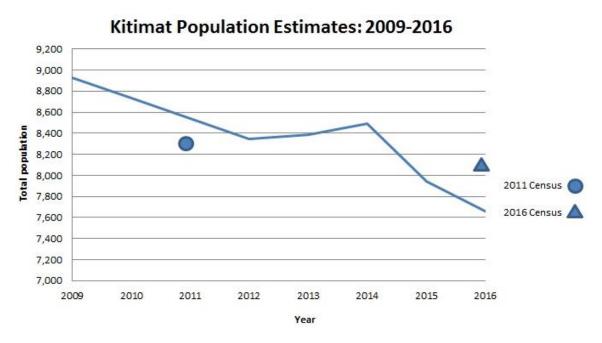
Kitimat's Major Industry Projects (including 'proposed' projects)

Project Name	Developer	EstCost (\$million)	Status	Stage	First Nation Agreement	Construction Jobs	Operating Jobs	Start Date	Completion Date
Kitimat Modernization Project	Rio Tinto Alcan	4800	Complete	Operations		3500 (1200 hired locally)	1000	FID in 2011, peak construct ion 2014	2015
Cedar LNG	Cedar LNG Export Developme nt Ltd.; Haisla		Proposed	Consultation/ Approvals					
Terminal A Extension Project	Rio Tinto Alcan	250	Proposed	Consultation/ Approvals				2016	2017
Triton LNG Facility	AltaGas Ltd./ Idemitsu Canada Corp.		Proposed	Consultation/ Approvals					2019
Kitimat Clean Oil Refinery and Pipeline	Kitimat Clean Ltd.	32000	Proposed	Consultation/ Approvals		6000	3000		2022
Kemano Tunnel Project	Rio Tinto Alcan	500	Constructio n started			110			
LNG Canada Facility	Shell, PetroChina, Korea Gas, and Mitsubishi	25000	Proposed	Consultation/ Approvals		7,500	400		2022
BC LNG (Douglas Channel) Energy Project	Douglas Channel LNG Consortium	600	Proposed	Consultation/ Approvals	Long-term lease agreement with Haisla	750	25		2018
Sandhill Aggregate Processing and Export Terminal	Sandhill Materials Inc.	90	On hold						
Pacific Northern Gas Pipeline Looping Project	Pacific Northern Gas Ltd.	130	Proposed	Tender/Preco nstruction		2,100			Late 2016
Northern Gateway Pipeline Condensate Pipeline	Enbridge Pipelines Inc.	2500	Proposed	Consultation/ Approvals		2500	35		
Kitimat LNG Terminal and Pacific Trails Pipeline	Chevron Corp./Wood side Energy Ltd.	5800	Proposed	Consultation/ Approvals		3000	100		
Northern Gateway Pipeline Project - Crude Oil Pipeline	Enbridge Pipelines Inc.	1900	Proposed	Consultation/ Approvals		2000	165		

Source: Ministry of Jobs, Tourism, and Skills Training 2015.

POPULATION CHANGE

The KMP and other resource exploration and industrial development projects have not had a significant impact on recovering Kitimat's permanent population. The population began to decline with Eurocan layoff announcements in 2009, with further declines associated with Eurocan's closure. The permanent population continued to decline, however, even as the KMP construction began in 2011. During that year, the Census population for Kitimat was 8,335. As the pace of KMP construction peaked and other LNG pursuits became more active between 2013 and 2014, estimates suggest a modest recovery to stabilize the population. As RTA completed the KMP and LNG commodity prices declined, estimates suggest the permanent population in the community has continued to decline. With a population of 8,131, the 2016 Census indicates that Kitimat experienced a -2.4% decline from the previous Census period; although this decline is not as steep as estimates from BC Statistics had predicted. Two things are important to observe within this portrait of population change. First, despite the large scale of the KMP and other proposed LNG projects, the temporary nature of exploration, planning, and construction phases is driven by temporary local and mobile labour and contractors. The estimates do not capture this shadow population. Construction of the KMP camp for mobile workers was initiated after the KMP construction began. As we will demonstrate throughout the report, pressures imposed by rising housing and related living costs related to the large influx of mobile workers would make it difficult to attract and retain professionals and workers to support other services and businesses. Rapid industrial growth does not always equal or foster growth for other sectors of the economy or lead to gains in the permanent population.



Source: BC Stats, Population Estimates 2009-2016. Stats Canada 2011, 2016.

INFORMATION

Information can be the most valuable asset to bring clarity and guide decision-making processes, investments, and long-term working relationships during rapid growth. As stakeholders engaged with various planning and decision-making processes, however, they encountered some important challenges associated with the availability of data for small communities.

First, there can be a number of limitations with Statistics Canada data. The census is only conducted every five years. As such, it really only provides "snap shots" of a particular time. There can be many changes that a community experiences both after and between census periods. In Kitimat, the KMP took place in between Census periods; thereby, masking population pressures in the community. With considerable change between the two Census periods, the limited availability of data can make it challenging to track emerging issues in order to make informed decisions about program and infrastructure investments.

Data is also released slowly over time, so it becomes outdated very fast. While total population figures for the 2016 Census were recently released, more specific socio-economic data about age distribution, families, households, and marital status, employment rates, and income levels will be released over the next couple of years.

With infrastructure and program funding based on Census population counts (Morris 2012), there is also a need to review the allocation of funding for resource-based communities that are impacted by mobile workforces. Census data does not capture the shadow population of mobile workers who may be living in work camps, illegal suites, private rooms, and other accommodations (Province of Alberta 2006). This is because the Census does not request mobile workers to identify resource-based communities that they spend time in throughout the year. Instead, contractors and workers may record the company's headquarters on the Census form rather than identifying a second place of residence.

In Canada, there is no defined poverty line. However, Statistics Canada's low-income cut-off (LICO) has been used as an artificial measure of poverty and is often used by provincial and federal government agencies, such as BC Housing, as a benchmark to determine eligibility for programs¹. LICOs are periodically adjusted around each Census period to account for inflation, changes to household incomes and expenses, changes to family size, and for the size and location of the community. In Kitimat's case, however, change occurred so rapidly, that many working poor and middle-class residents struggled to keep pace with rising housing costs, but did not qualify for housing supports due to the outdated calculation of the LICO for Kitimat.

The local government and service agencies also found it challenging to track housing pressures due to the limited availability of data from Canada Mortgage and Housing Corporation. Housing

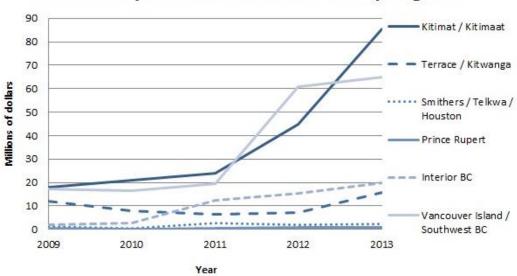
¹ It is understood as the threshold at which a household spends 20 percentage points more than an average household on food, shelter, and clothing.

data is typically tracked and released for communities with a population of 10,000 or more. In 2001, Kitimat's population still exceeded this threshold. As the Methanex and Eurocan layoffs and closures took hold, however, the reduced population meant that this information was no longer released. This impeded the community's ability to understand the scale and scope of emerging pressures, as well as to advocate and invest resources to address related housing issues. As such, a request was submitted to obtain a special tabulation of data for Kitimat. Population thresholds also impacted the availability of data in other areas such transportation. As stakeholders move forward, there are clearly limitations associated with the data and information that is available to support planning and investments. Smaller communities need to scale up and advocate for better information supports to address planning and investments in advance of, and during, rapid growth.

ECONOMIC DEVELOPMENT

During the tracking study, there were several proposed industrial projects that impacted the local economy. As noted earlier, however, Rio Tinto's KMP was the largest project that received a final investment decision to proceed with construction during our study period. Prior to the construction of the KMP, Rio Tinto's expenditures in the Southwest region of BC were similar to expenditures in Kitimat / Kitimaat. These include expenditures for construction, contracting, manufacturing, wholesale/retail, transportation, and services. As a result of the KMP, Rio Tinto expenditures in Kitimat / Kitimaat increased from \$24 million during the first year of construction to just over \$85 million by the end of 2013.

Rio Tinto Expenditures: Selected Places / Regions



Source: Rio Tinto 2009-2013. Note: figures since 2014 have not been publically released.

Two things are notable about the early stages of the KMP in 2011. The economy was continuing to experience repercussions from Eurocan's closure in 2010. Retail sector closures continued, leaving the community with a smaller customer base and aging commercial infrastructure. Second, an influx of investors and emerging opportunities for suppliers meant that rapid growth was beginning to take hold in town through fewer vacancies in commercial spaces, rising commercial lease rates, and a broader customer base to support new chain restaurants and stores. Some stores invested resources to develop new business plans and change their product inventories to respond to the needs of mobile workers in leased homes and camp.

In 2012, the construction of the KMP and the KMP camp, and the announcement of Canada LNG meant that rapid industrial growth was fully ramping up. Businesses and contractors were pooling their human capital assets through joint ventures with the larger contractors from other places in order to improve their competitiveness for pursuing industry contracts. Local companies, however, needed to be prepared to invest in the legal structures of these joint ventures to ensure that both partners benefitted from the new arrangement. There were also a

number of joint ventures with the Haisla. This period of rapid growth continued to nurture an expansion of businesses, particularly engineering firms and industry contractors.

The ability to benefit from industry contracts was not always easy for local businesses. Some experienced challenges adjusting to new purchasing policies, especially change in preference given to local suppliers. Due to the scale of new industrial projects and these new operating policies, businesses had to adjust. Contractors also faced payment delays for invoices submitted to industry. Many of these small contractors do not have large lines of credit to sustain themselves until they are paid by industry; thereby, threatening the viability of their business.

The broader economic landscape was also changing. Vacant stores were filling up, grocery stores were busier, and residents welcomed a new Tim Horton's. Renovations were starting to improve aging commercial and light industrial infrastructure. The District of Kitimat also moved to support the transformation of commercial infrastructure by reducing property taxes for renovated commercial buildings in 2013. A new bylaw offers "a five-year tax exemption on the increase in assessed value to a maximum of \$2,000,000" on Class 6 buildings² where at least \$25,000 or more in exterior improvements have been made (District of Kitimat 2013a).

The mobile labour force was also starting to have a noticeable impact on the local economy. Fishing charter companies were busier and buses brought workers into town to shop and eat at local restaurants. As the work camp became more self-sufficient, however, local businesses were noticing fewer economic benefits. Workers were also finding it difficult to access businesses and services outside of their shiftwork rotations.

As industrial activity expanded in 2013, more contractor offices and retail businesses opened to diversify the economy. The District of Kitimat, the Chamber of Commerce, KTIDS, and the 16/37 Economic Alliance all played a key role to encouraging or attracting new business development by building relationships, developing an information centre, investing in long-term planning through gap analyses and worker attraction surveys, organizing an energy conference, and by delivering procurement boot camps to build the capacity of the business community. These initiatives broadened their understanding of the criteria used to evaluate procurement bids, including the financial and technical capacity, management structures, and past performance in order to determine the stability of the supplier.

There was a downside to rapid growth. There were concerns about the capacity of businesses and small contractors to do the scale of work required by industry, and to meet several operational, environmental, and occupational and safety requirements. Rapid growth has also increased financial pressures as contractors faced payment delays for invoices submitted to industry. Many small contractors do not have large lines of credit to sustain themselves until they are paid by industry.

16

² Class 6 buildings is a category used by BC Assessment to refer to retail buildings, warehouses, and accommodation businesses.

Aside from concerns about Kitimat's proximity to Terrace, some people we spoke with felt that business development was undermined by limited capital, high commercial rental costs, and lengthy development processes. Intense competition for labour and increased cost of living meant that businesses experienced difficulty recruiting and retaining staff, resulting in reduced hours of operation and some business closures. The opening of pub facilities in camp also prompted concerns about fewer economic benefits that would be realized in other local pub facilities. Aging or inadequate commercial infrastructure, intense competition for labour, and higher commercial rental rates were making it more difficult to attract or develop new entrepreneurs. Business renovations and the sale of the Nechako Centre provided positive directions to improve aging commercial infrastructure.

As the KMP approached completion, uncertainty with LNG projects took hold, and the municipality experienced a prolonged strike, the local economy showed signs of slowing down in 2015 with store closures, loss of professionals, and reports of fewer customers for restaurants and fishing charter companies. Businesses have taken the opportunity, however, to build joint ventures with the Haisla and industry, to renovate their properties, increase sales of family-owned businesses, and to engage in succession planning in order to better position the competitiveness of the local economic sector moving forward. Despite the slowdown in industrial construction activity, there has been little change in commercial rents and lease rates as property owners wait for the next anticipated growth period.

EMPLOYMENT

Prior to the closure of Eurocan, there were lots of high paying resource sector jobs in Kitimat; although the adoption of technology in production had already started to reduce the resourcebased industry workforce. Following the mill closure, more former Eurocan employees started to engage in long distance labour commuting. The loss of revenue from the industrial tax base also led to a reduction in local government staff. In the wake of this closure, the KMP introduced significant employment opportunities for highly skilled workers. These employment opportunities focused on the demolition of former industry sites, those associated with the construction of the KMP and new liquefied natural gas (LNG) projects, as well as those associated with supportive professional consulting services and industry suppliers. Stakeholders also noticed more jobs available for women in trades, management and administration, business, and camp operations. Employment opportunities also increased in the health care and community services sector. The downturn in the metals commodity market, however, led to job losses with key contractors, such as Bechtel, as well as subsequent job losses in indirectly supported non-industry jobs. These layoffs, when combined with the Eurocan closure, meant that there were fewer employment opportunities for youth and young adults both within industry and non-industry jobs as they were amongst the first to be laid off and as older workers searched for employment in other sectors in the community.

During 2012, a new five year collective agreement was reached with the unionized workforce to bridge old and new smelter facility operations (Rio Tinto Alcan 2012). Jobs continued to increase with RTA's KMP and tunnel projects. People began to notice other benefits as workers gained experience working for different contractors. In some cases, the employment experiences that local workers gained through industry proponents led to additional employment opportunities with these companies in other places.

With an influx of international and Canadian mobile workers, there were concerns emerging about the realization of employment benefits for local residents. Despite these concerns, large-scale industrial projects continued to open up jobs for women, youth, and Aboriginal people. Through their legacy agreement with Rio Tinto, the Haisla have also benefitted from opportunities to provide RTA with security, shuttle, and camp services. As the KMP construction began to pick up in 2012, more part-time service related jobs for youth became available again.

Strong employment growth continued in 2013. With this growth came an influx of more mobile workers and management for RTA's projects and operations. There continued to be gaps in highly skilled labour as RTA looked to recruit more skilled engineers. During this period, community service agencies observed immigrants who faced challenges obtaining work in their trained fields, prompting the Chamber of Commerce to obtain a grant to assess immigrant skills. There were some concerns that businesses and organizations lacked in-house expertise to respond to the opportunities and challenges associated with this period of rapid growth.

By 2014, employment peaked along with the construction of the KMP and continued work on proposed LNG projects. Kitimat LNG, for example, had approximately 550 workers employed on key projects such as upgrading the Bish Forest Service Road and early construction at Bish Cove. In addition, more than 1,000 workers were continuing to operate the old smelter. The Haisla have retained employment opportunities through the RTA / Haisla Legacy Agreement. The intense demand for trades workers needed to support the KMP meant that shift rotations became longer, there were more fly-in / fly-out workers, and retired trades workers were now under contract for the project. More than 100 workers were also required to operate RTA's cruise ship. Higher turnover rates in camp workers were also observed. As business leaders and investors moved to develop more hotel facilities and other businesses during this growth period, there were challenges competing with industry projects to obtain construction trades workers to complete these projects. Local businesses also found it difficult to explain human resource management issues and needs to distant head offices who do not understand the pressures associated with the cost of living and competition for labour in Kitimat; thereby impacting operations through their capacity to deliver programs and services. Furthermore, youth and seniors were increasingly utilized to address workforce gaps in the service sector.

As the KMP approached completion, the workforce associated with RTA's KMP declined, prompting more people to commute long distances for work. Based on workforce experiences throughout the KMP, stakeholders we spoke with generally felt that they are more aware of the potential burnout of industry and service workers, prompting some to advocate for more balance between life and rotational work schedules. Many former industry project workers are now connecting with employment supports, and more vulnerable residents are engaging in volunteer programs with local businesses in order to obtain more work experience.

Throughout the tracking study, the presence of high industry wages and lower service sector and, in some cases, professional wages has created "two-speed" or "multi-speed" economies, reflecting a socio-economic divide between households who are able to directly benefit from industry employment (Brueckner *et al.* 2013). At the same time, there has been an influx of low-skilled, untrained, and uncertified people looking for work during construction periods; thereby, exacerbating stresses on employment services, employment training, and community social and housing supports. Another key issue was that this influx of people had a limited understanding of industry hiring requirements and processes. This included a limited knowledge of the prerequisite trades and safety tickets required and union hiring processes.

Several human resource pressures have impacted the development and sustainability of small businesses, including challenges finding and hiring good workers, high wage rates, competition with industry for labour, and high rates of labour turnover. Some businesses and organizations feared that once resources have been invested into worker training and development, the most qualified and experienced workers will move on to obtain higher paying industry work.

HOUSING

The rapidly changing bust and boom cycles have produced profound pressures for Kitimat's housing landscape. To start, the closures of Methanex and Eurocan led to lower real estate prices, higher vacancies, lower rental costs, and an aging housing stock in the community. These changes continued to be observed during 2011; although, this became the first year stakeholders also started to observe early signs of improvement in the housing market. Real estate prices started to increase, vacancy rates were declining, and rental rates were starting to climb with the initial influx of mobile workers and contractors. An aging workforce and attraction of retirees, however, also led to more demands for age-friendly housing.

As the KMP moved forward, and as other projects started to unfold, there was a noticeable increase in housing prices. Hotel and bed and breakfast accommodations were full. Despite the completed construction of the KMP village, there was a noticeable increase in rental costs with more contractors renting houses, apartments, and in-law suites. The potential for economic opportunities in the housing and rental markets prompted renovations to aging housing market deficiencies to attract industry contractors.

Living out allowances have arguably been one cause of inflated rental and housing costs. Industry has not always been aware of the impact that local living allowance rates are having on the community and its own bottom line. Contractors would pay high rental rates for homes only to pass those costs onto industry. There can be cases where industry may bid against employees for a home, thereby further driving up the housing market. This had led to calls for a more coordinated response to placing industry workers and contractors in community-based housing when needed.

Average selling price (year to date) (\$), Kitimat, 2012 to 2015										
Community	Sept 2012	Units	Sept 2013	Units	Sept 2014	Units	Sept 2015	Units		
Kitimat	175,959	114	230,716	121	318,270	67	303,510	57		
Terrace	219,242	148	250,157	170	307,507	136	308,266	131		
Prince	193,691	98	196,215	154	214,136	192	248,865	126		
Rupert										
Fort St.	353,862	292	372,506	307	410,197	324	428,904	220		
John										

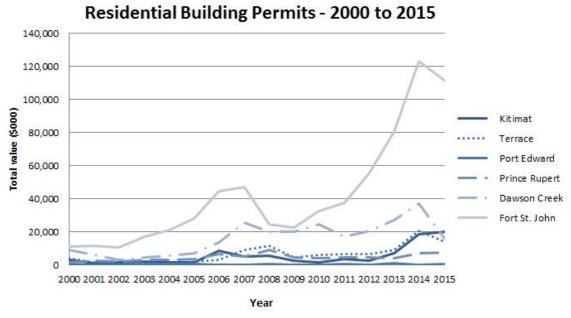
Source: BC Northern Real Estate Board 2016.

This prompted warning signs for service providers that were responding to the immediate needs of low-income residents who had been evicted in the process. These 'renovictions' also impacted a number of seniors on fixed incomes who subsequently faced long waiting lists to be accepted into independent or assisted living social housing facilities in Kitimat. The Tamitik Status of Women's transition house also became busier with women leaving relationships.

The Advisory Housing Committee was formed in April 2012 and a Housing Needs Assessment was quickly completed to establish priorities to address housing pressures in Kitimat. The membership of the committee was constructed to include the stakeholders and organizations

that were responding to those who were renovicted. Through the Chamber of Commerce and several service agencies, the committee also included voices of businesses and organizations that were starting to struggle to recruit and retain workers due to housing pressures. There was a lack of housing options to reflect the range of incomes, the needs of an aging population, and the needs for the next generation workforce.

In 2013, high turnover and increased housing prices continued to be observed in the local housing market. Some homes and apartment buildings were purchased by Rio Tinto Alcan and contractors, such as Bechtel, to provide housing for temporary mobile workers. Improvements continued to be made through investments in renovations and a new subdivision. This year also marked the first noticeable increase over the next few years with residential building permits; although, new residential construction in Kitimat did not match the pace of rapid growth in the Peace River Region. With limited affordable housing options available for non-industry workers, stakeholders started to observe more families sharing homes. Renovations in the rental stock produced more furnished units designed to attract more industry contractors. With limited awareness of tenancy rights, however, residents continued to be displaced and challenged to address their housing needs as rental rates continued to increase.



Source: BC Statistics 2000-2015.

Changes were also observed in work camp facilities. Existing camps were not filled to capacity despite housing pressures in the community. The rapid expansion of industrial growth, however, attracted other open camp investors such as PTI, now Civeo, to the region. The development of Civeo's open camp near the downtown core, however, will leave the community with property that will be ready for subdivision development in the future. During construction, there can be more pressure on local accommodation and housing infrastructure when work camps are still being developed. Community stakeholders supported the use of work camps to respond to temporary housing needs when there is a rapid influx and turnover

of workers and contractors throughout the construction phase. Work camps were also supported for their role to prevent overbuilding the housing stock that can otherwise result in an excess supply of rental units and devalue property (Ennis *et al.* 2013).

As construction with the KMP peaked in 2014, housing pressures intensified. Housing prices continued to increase, renovations continued to improve the housing stock, and new subdivisions were being developed. Through Jack Oviatt, private investment was also being made to develop seniors' housing. Investments were made to renovate and expand hotel accommodations that will better position the community moving forward for both tourists and business visitors. With LNG proponents building new work camps, along with the development of Civeo's new open camp near the downtown core, hotel vacancies started to increase.

With an increase in homelessness and displaced residents in the community, the Community Development Centre (CDC) worked with the local government, with initial federal government funding support from the Homeless Partnering Strategy, to acquire a housing resource worker to assist displaced and homeless residents. The Homeless Outreach Program also experienced a strong demand for support. The success of the program delivered by the Tamitik Status of Women has been linked to the flexible criteria established by provincial policies that enable residents to access financial resources for not only rent, but also storage and moving costs.

Housing pressures also re-shaped local government initiatives with more attention to new housing policies, such as strata conversion and secondary suite options, zoning amendments, tenant relocation plans, and engagement with the Housing Committee. For example, a new secondary suite incentive program was introduced that provided a five year forgivable loan via a grant agreement with the District for new secondary suites. This policy built in additional incentives for the provision of affordable housing through the development of secondary suites. Some homeowners and potential investors, however, have been reluctant to invest additional resources due to concerns with the Province's Residential Tenancy Act that does not allow landlords to recoup enough for damages. This includes restrictions on a one-time pet damage deposit, regardless of the number of pets (Province of British Columbia 2016). The security and pet damage deposit combined cannot exceed one month's rent.

District of Kitimat Secondary Suite Incentive Program	
Type of Secondary Suite	Allowable Forgivable Loan
Any suite	\$2,500
Level 1 affordable ³	\$5,000
Level 2 affordable ⁴	\$7,500
Any suite that is accessible for disabled ⁵	\$2,500 (bonus)

Source: District of Kitimat n.d.

_

³ According to Canada Mortgage and Housing Corporation, Level 1 affordable units cost no more than \$645 for a bachelor, \$750 for 1 bedroom, \$900 for 2 bedrooms, and \$950 for 3 or more bedrooms (District of Kitimat n.d.).

⁴ According to CMHC, Level 2 affordable units cost no more than \$575 for a bachelor, \$685 for 1 bedroom, \$815 for 2 bedrooms, and \$873 for 3 or more bedrooms (District of Kitimat n.d.).

⁵ Accessible units must meet BC Housing Design Guidelines and Construction Standards (District of Kitimat n.d.).

Kitimat also introduced a density bonusing scheme through a new bylaw that would require construction camps to make amenity contributions to an affordable housing fund. The contribution can be cash or in-kind in the amount of \$500 for each unit that becomes operational (District of Kitimat 2014).

The local government staff worked with community service providers, church volunteers, and BC Housing to develop an emergency cold-weather response shelter in 2014. BC Housing also engaged with Kitimat's Housing Advisory Committee to provide funding to complete a housing action plan, to support residents through their Shelter Aid for Elderly Renters (SAFER)⁶ program and Rental Assistance Program (RAP)⁷, and to support the extreme weather housing program in the community. Some stakeholders we spoke with, however, felt that these programs have been insufficient to address the increase in rental rates and that the provincial government had not been proactive enough to manage housing pressures during the early stages of rapid growth. While the provincial government offers social housing funds and subsidized rent programs (BC Housing 2016), for example, program criteria does not reflect the cost of living in boomtown settings. In these places, many households that are not designated as low-income are not able to afford high rental rates, but do not qualify for supports from these programs.

During this year, industry-community relations had improved with greater industry engagement to address housing pressures. This included the provision of anonymous industry housing subsidies, the allocation of a cruise ship to house part of the RTA workforce, and participation in the housing committee. A number of church organizations were also assessing the potential to use their land to support social housing developments. Private developers have also purchased land to support the expansion of the housing stock.

With the KMP approaching completion in 2015, housing pressures began to subside with a slight decline in housing market prices. New subdivisions continued to be developed and there were more housing lots and homes for sale. Improvements to the aging rental stock were made through the demolition of low quality housing and the reconstruction of older townhomes. During this period, some observations by stakeholders we spoke with suggested that some investors and landlords preferred to wait for the next period of rapid growth to attract high paying tenants instead of renting units out to non-industry workers in the community. Furthermore, difficulty addressing high housing and rental costs, 'renovictions' in apartments and mobile parks, and, for many, limited access to housing subsidies, prompted some residents to leave the community. In response, the local government has also developed a new bylaw requiring work camps to contribute to an affordable housing fund.

⁷ RAP refers to the rental assistance program delivered through BC Housing. It provides a monthly rental subsidy for low-income, working families.

⁶ SAFER refers to the Shelter Aid for Elderly Renters program delivered through BC Housing. It provides a monthly rental subsidy for low-income residents aged 60 years and older.

Preparations for workforce accommodations to support LNG projects continued, however, as LNG Canada announced a lease agreement with a proposed new Haisla facility⁸ in the downtown core and as site preparation and construction continued for open and closed work camps in the community. The postponement of LNG projects, however, has generated uncertainty for new work camps.

[.]

⁸ The Haisla Town Centre is a proposed new development to be completed by the end of 2016. The new facility will contain 150 condominiums, a hotel, commercial space, and a restaurant.

EDUCATION

Skills shortages can be an important barrier to growth. Education and training shapes the extent to which local and regional residents are able to realize employment and economic benefits from industrial development. One challenge with developing workforces within a short-term horizon involves the fact that workers must already be equipped with a level of literacy and other basic skills. Many regions simply do not have a large number of people looking for work who possess the requisite background skills and capacity to enter specialized training programs. This is one of the reasons why mobile workforces are so common throughout construction and operational phases of large-scale industry projects.

During the early stages of the KMP, Eurocan's closure prompted Eurocan to provide former employees with funds to support retraining, many of whom were able to use the opportunity to better position themselves for employment with other industries. Other low-skilled and unemployed residents, however, faced challenges from government regulations that impeded their engagement in industry training programs that would better position them moving forward. Their participation in some industry programs was perceived to impact their eligibility and ability to retain important financial supports as they completed their education and training. Unfortunately, these policies were producing unintended consequences that reduced opportunities to move low-skilled labour into higher skilled positions with industry; leaving industry to pursue mobile workers due to a shortage of skilled labour.

There were also mixed reactions, however, to the capacity and readiness of educational supports to prepare the workforce for opportunities with forthcoming large-scale industrial projects. Basic supports were in place through community organizations to provide literacy, ESL, and basic computer training. Rio Tinto Alcan had reintroduced their apprenticeship program and there were more opportunities for trades training for women. Rio Tinto Alcan and the Haisla entered into a partnership to purchase the Kitimat Valley Institute (KVI), with preapprentice screening programs being provided for Aboriginal youth. There were concerns amongst stakeholders, however, about limited access to union apprenticeship programs for a broader range of youth. The small economies of scale and competing courses offered by KVI, Northwest Community College (NWCC), and the University of Northern British Columbia (UNBC) also meant that courses did not always have the student numbers to be viable.

In 2012, school enrollments continued to decline, and the Coast Mountains School District made the decision to move grade 7 students to the Mount Elizabeth Middle School as part of a new educational model implemented in the region. With little change in school enrolments in 2014, the school board made the decision to integrate the middle school and senior secondary school into Mount Elizabeth Senior Secondary. Significant efforts were made to ensure Kildala Elementary School remained in operation. New partnerships also emerged through the Secondary School Apprenticeship and the Accelerated Credit Enrolment in Industry Training programs to introduce high school students to employment opportunities with industry.

KVI formed its own society and increased training for RTA workers and Haisla residents. While large industrial projects were ramping up in Kitimat, however, broader restructuring processes for NWCC meant that programs were reduced in Kitimat, instead focusing on on-line courses. With the KMP in full swing and the potential for several LNG and other industry projects to emerge in the region, however, the Northwest Regional Skills Training Table completed their research in the fall of 2012 to develop a skills training strategy that was released for 2013-2018 to respond to local and regional labour needs (Northwest Regional Workforce Table 2012). This strategy targets low-skilled or semi-skilled labour, as well as the next generation workforce in order to better position them for an expansion in industrial construction and operations. Reading and financial literacy, job readiness, job market knowledge, apprenticeships, co-op placements, mentors, training camps, equipment and infrastructure assets, and curriculum development are all key components of the strategy. The strategy, however, focused largely on industry needs, leaving critical gaps to address education and training needs for small business, early childhood education, healthcare, and other sectors that play important roles to support that industry workforce.

Community stakeholders were pooling their resources together to share training costs. Even though community organizations are working to strengthen their human resources, there have been challenges accessing local mentors and educational programs to develop staff resources. Organizations have responded by supporting access to educational programs in Terrace, as well as by pursuing distant educational programs. The CDC has also been exploring opportunities to work together with the KVI and industry to enhance the training capacity for early childhood educators. Organizations were also pursuing new arrangements to share or obtain affordable space from the NWCC to support the delivery of their programs.

As industry continued to ramp up construction and demolition projects through 2013, there were changes in education and training to address some industry needs. Rio Tinto Alcan entered into an agreement with the Coast Mountains School District to rent the Roy Wilcox Elementary School to support more specialized training needs, leaving KVI to focus largely on Aboriginal education and training and pursue additional partnership arrangements with LNG proponents for apprenticeship and job readiness programs. This left a gap in some basic trades training, prompting the need for some residents to commute to the NWCC campus in Terrace. St. John Ambulance was providing more first aid training in the community.

More recently, the federal government, through the Ministry of Innovation, Science, and Economic Development and Western Economic Diversification Canada provided a grant to upgrade KVI facilities with new electrical and HVAC systems, new welding and carpentry stations, new tools and equipment, and a new outdoor structure to support the Construction Craft Worker training program (Haisla Nation 2016). Educational programs have also been recently strengthened through investments by BC's Skills for Jobs Blueprint, TransCanada, and LNG Canada for a mobile training unit to be rolled out through the Northwest Community College (LNG Canada 2015). Uncertainty with LNG projects and the completion of the KMP led to reduced student enrollment as some workers and their families moved out-of-town; although, the Catholic School reported an increase in enrolment.

PHYSICAL INFRASTRUCTURE

Rapid growth during major industrial development projects can increase pressures on physical infrastructure, including roads, water, sewage, land, power, and utilities. In Canada, aging infrastructure has become a key issue for many resource-based towns that emerged between the 1950s and the 1980s. Older infrastructure was not designed for expansion. Planning for infrastructure upgrades and expansion has been difficult due to the uncertainty associated with final investment decisions and development timelines for large-scale resource projects. New developments may be impacted by local governments that do not have timely financial resources available to invest in expanding or upgrading infrastructure. Their financial pressures are further exacerbated by provincial and federal government policies that do not include shadow populations when infrastructure funding is allocated to resource-based communities.

The townsite for Kitimat was developed in the early 1950s to support a new labour force at Alcan's aluminum smelter. It was designed by Clarence Stein, a prominent planner who was developing new town models that emphasized compact, separated land uses with intricate walkway systems to link residential areas with schools, shopping, and recreational assets (Halseth and Sullivan, 2003/2004). The fairly compact design of the community has meant that Kitimat has less water, sewage, and road infrastructure to maintain compared to other communities of similar size in northern BC. Throughout this period of rapid growth, the length of physical infrastructure has remained fairly consistent; although, upgrades and improvements appear to have been successful in reducing the amount of infrastructure that must be maintained. While the water and sewage infrastructure has been reduced in Kitimat since 2010, other places have seen an expansion in the distance of infrastructure – all having important implications for operational budgets.

General Statistics for Physical Infrastructure, Selected Communities, 2010									
Municipalities	2006 Census	BC Stats Population Estimates	Storm Sewer Distance (km)	Sanitary Sewer Distance (km)	Water Pipe Distance (km)	Distance of Paved Roads (km)	Distance of Unpaved Roads (km)		
Dawson Creek	10,994	11,860	63	103	146	148	16		
Fort St. John	17,402	19,873	82	127	158	124	16		
Kitimat	8,987	9,178	44	64	81	78	5		
Port Edward	577	571	3	8	9	14	4		
Prince Rupert	12,815	12,994	34	84	101	59	3		
Terrace	11,320	11,931	66	85	111	91	11		

Source: Ministry of Community, Sport, and Cultural Development. 2010. Local Government Statistics: General Statistics. Victoria: Ministry of Community, Sport, and Cultural Development. Available on-line at: http://www.cscd.gov.bc.ca/lgd/infra/statistics index.htm.

General Statistics for Physical Infrastructure, Selected Communities, 2014									
Municipalities	2011 Census	BC Stats Population Estimates	Storm Sewer Distance (km)	Sanitary Sewer Distance (km)	Water Pipe Distance (km)	Distance of Paved Roads (km)	Distance of Unpaved Roads (km)		
Dawson Creek	11,583	12,653	65	110	159	107	16		
Fort St. John	18,609	21,523	124	158	183	139	14		
Kitimat	8,335	8,452	45	62	74	78	5		
Port Edward	544	536	3	8	9	14	4		
Prince Rupert	12,508	11,918	34	84	101	59	3		
Terrace	11,486	11,265	80	89	113	102	13		

Source: Ministry of Community, Sport, and Cultural Development. 2010. Local Government Statistics: General Statistics. Victoria: Ministry of Community, Sport, and Cultural Development. Available on-line at: http://www.cscd.gov.bc.ca/lgd/infra/statistics_index.htm.

Prior to Eurocan's closure, the community continued to have well maintained physical infrastructure during the period of decline; although, some expressed concerns about cutbacks to snow removal and aging infrastructure. In 2011, there were a number of improvements to upgrade municipal roads, water and sewage infrastructure, and sidewalks. With a number of cracked sidewalks and interest to improve accessibility in the community, the local government installed curb cuts, but also started to decommission some sidewalks. This prompted debates amongst residents who considered the sidewalks as part of the heritage associated with the planned community by Clarence Stein. Strong interest in heritage parks and walkways prompted the local government to complete a resident survey of sidewalk use. By the end of 2013, there were also more access ramps to improve accessibility for residents with limited mobility. Seniors, however, have continued to express concerns about the maintenance of icy sidewalks during winter.

There were concerns about lost marina capacity and limited access to waterfront property and walking trails as demolition and construction started to ramp up. The waterfront property was largely owned and controlled by industry interests and access continued to be restricted due to safety and liability issues during construction. A new wharf was also constructed to support rapid growth.

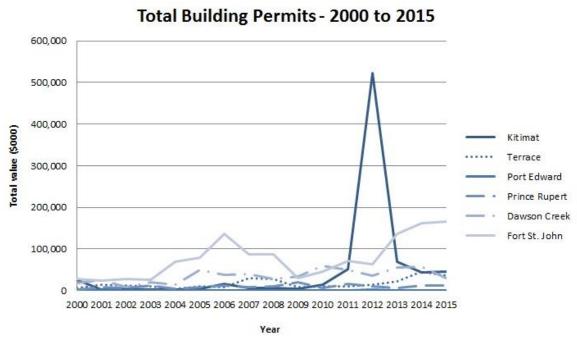
During the early phases of this industrial activity, however, local government was under pressure to invest in infrastructure before receiving increased tax revenues in order to support rapid industrial growth. By comparison, senior government and industry support for critical infrastructure investments have been delayed until final investment decisions have been made, making it difficult to strengthen community preparedness for any future cycles of rapid growth. By 2014, the provincial government announced a \$1 million fund to support infrastructure planning in the Northwest region of BC. These funds were urgently needed to address physical infrastructure pressures from new hotels and accommodations and industry. Preliminary work for the LNG sites was now underway. RTA's cruise ship was set up with its own water system;

although, the local government charged a usage fee for sewage. On a smaller scale, participants discussed several concerns with the engagement of the federal government, including being too focused on the Enbridge proposal, limited attention to develop and upgrade the sea port, limited attention to address pollution along the riverbanks, and being under served by the Canadian Border Services Association. As the tracking study was approaching its conclusion in 2015, the local government received funding from the federal government's Small Communities Fund and from the provincial government (combined total \$2.4 million) to upgrade the wastewater treatment plant that is projected to cost \$3.6 million (District of Kitimat 2015). At the regional level, some stakeholders we spoke with felt that there has been limited visibility by the regional district to address marina pressures and the relocation of the garbage disposal area.

The tracking period also marked some important land transfers that have not only improved relations across stakeholders, but have also better positioned different groups to pursue new opportunities. The Province sold the old hospital lands to the Haisla. This not only provided the Haisla with a new economic development opportunity as they look to develop the property, but also for the municipality which will accrue municipal taxes from the new development. At the end of 2014, the District of Kitimat received 156 acres of waterfront land near Minette Bay that was donated from RTA (Orr 2014). New infrastructure was also slated for a new apartment building development behind the golf course.

LOCAL GOVERNMENT

Rapid growth can impose several pressures on small local government operations. They must maneuver processes with multiple levels of government and maintain relationships with multiple industry stakeholders, First Nations, investors, and other communities. During this period of rapid construction and growth, they had to develop and implement new policies and zoning bylaws, infrastructure agreements, and development permits, as well as to track and update information on a regular basis. To demonstrate these pressures, we have provided a series of figures showing the total value of building permits issued for Kitimat between 2000 and 2015. The first figure provides a clear picture of the magnitude of rapid growth in Kitimat. Communities in the Peace River Region, such as Fort St. John and Dawson Creek have long been considered as bench marks of growth in northern BC. The total value of building permits issued by the District of Kitimat between 2011 and 2013, however, easily exceeds trends in other places across northern BC, reaching a peak value of \$521,800,000 in 2012. Even in Fort St. John, long a centre of rapid industrial growth in the Peace River Region, the total value of building permits never exceeded \$165,900,000 during this period. The pressures faced by local government staff in Kitimat were significant.

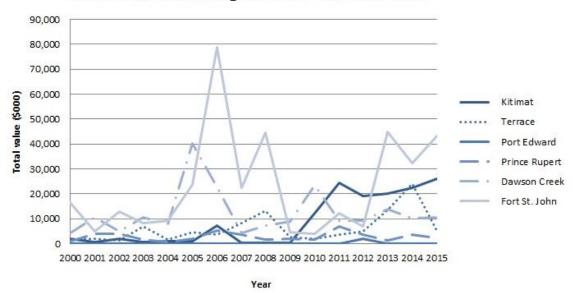


Source: BC Statistics 2000-2015.

These total building permits can be broken down by sector. Commercial building permits in Kitimat grew since 2009, despite the closure of Eurocan. As noted earlier, the economic development opportunities associated with the KMP and LNG projects prompted the development of new businesses and renovations in both the commercial and light industrial areas of the community; although the expansion of the commercial has not been as extensive as growth in the Peace River Region. Similarly, despite considerable developments in Fort St.

John, Dawson Creek, and Prince Rupert, Kitimat experienced little activity in government building permits during the tracking study. This sets up the final figure that shows changes in industrial development permits. As suggested above, the total value of industrial building permits in Kitimat since 2011 easily exceeds anything experienced in other selected places around northern BC, resulting in considerable short-term economic development opportunities, but also triggering considerable pressure on local government resources.

Commercial Building Permits - 2000 to 2015



Source: BC Statistics 2000-2015.

Government Building Permits - 2000 to 2015

25,000

15,000

10,000

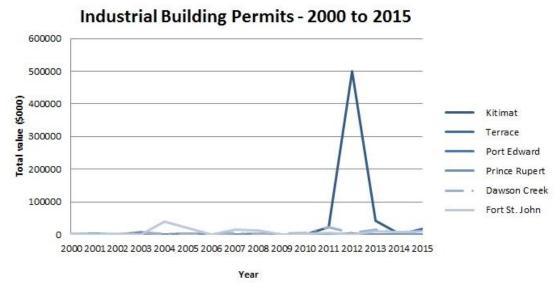
5,000

Compared to 10,000

Terrace Port Edward Prince Rupert
Dawson Creek Fort St. John

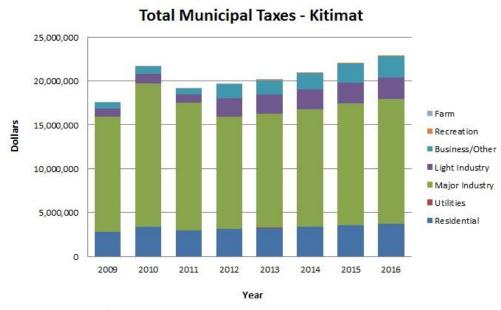
Year

Source: BC Statistics 2000-2015.



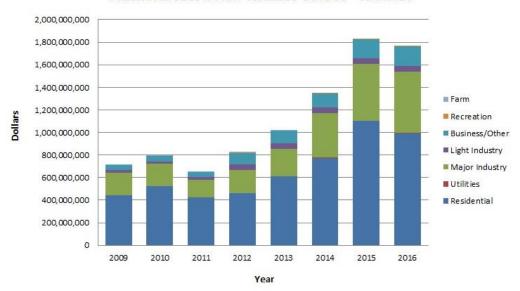
Source: BC Statistics 2000-2015.

The District of Kitimat has always benefitted from a large industrial tax base to support local infrastructure, services, and amenities. There were concerns, however, about the ability of local government to nurture new development approaches and opportunities. Following Eurocan's closure in 2010, a decline in the major and light industrial tax base meant that there were cutbacks across all local government departments. Tax revenues from major and light industry remained at reduced levels as buildings were demolished; thereby, affecting taxable property values. Rio Tinto Alcan's operations at the old smelter enabled the community to sustain a sufficient industrial tax base to maintain low residential taxes while maintaining civic and physical infrastructure, as well as support for community grant programs. As the KMP progressed, and as major LNG proponents completed early preparation work for their sites and work camps, the municipal tax revenues from major industry had recovered.



Source: Ministry of Community, Sport, and Cultural Development, 2009-2016.

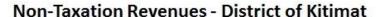


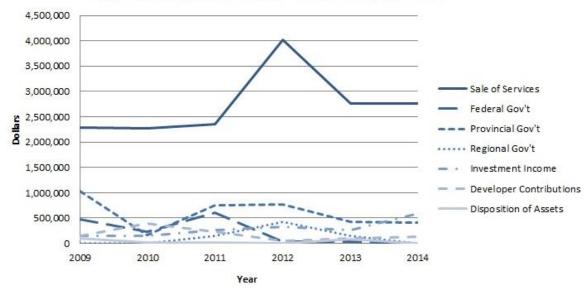


Source: Ministry of Community, Sport, and Cultural Development, 2009-2016.

Despite the breadth of staff and financial resources needed to support the planning and construction of many industry and broader economic development opportunities, however, the local government did not have the tax base and financial capacity to address the breadth and scale of planning, policy, and infrastructure work that needed to be done to support industrial development. During the early portion of this reporting period, it remained difficult to sustain timely inspections on both industry, as well as commercial and school sites, prompting overtime and increased costs for municipal budgets.

Below, we present a series of figures that portray the change in expenses, revenues, and long-term debt throughout this period of rapid growth. The changes in taxation revenue have already been presented above; however, local government revenues also consist of many non-taxation sources. In this case, revenue from services remains a strong secondary source of income for local government and sharply increased temporarily in 2012 as inspections and other services were provided to support large-scale industrial projects. Despite the breadth of proposed large-scale industrial projects for the area, senior government contributions were not significant during this period of rapid growth. The burden of dealing with massive upfront investments that will generate significant revenues for the provincial and federal levels of government should not be assumed solely by small local governments. Economic development funds and revenue sharing agreements are needed to better position resource-based communities to respond to the opportunities and challenges associated with rapid growth.

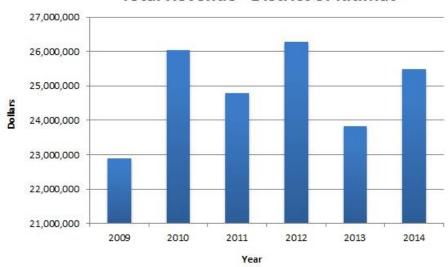




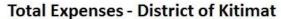
Source: Ministry of Community, Sport, and Cultural Development, 2009-2016.

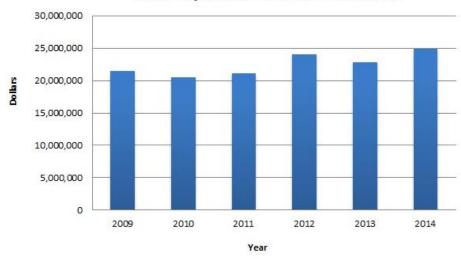
When these non-taxation revenues are combined with taxation revenues, a more complete portrait of the local government's fiscal resources emerges. Throughout this period of rapid growth, the total revenue for the District of Kitimat fluctuated substantially. The growth in revenue during 2012 reflects the temporary growth in revenue from industrial building permits. As the KMP construction and other LNG preparations unfolded, and as the socio-economic pressures intensified in the community, it is clear that the decline in senior government contributions and other sources of revenues were restricting, rather than supporting the capacity of the District during this period of rapid growth. The substantial fluctuations in local government revenues would have made it difficult to plan and stabilize operations. Despite these revenue challenges, the local government's management of expenses has remained fairly stable, with expenses growing to respond to the increased need for building permits, building inspections, and new policies and bylaws, as well as the growing demand for recreational amenities and protective services, such as policing and emergency supports.





Source: Ministry of Community, Sport, and Cultural Development, 2009-2016.





Source: Ministry of Community, Sport, and Cultural Development, 2009-2016.

Throughout study period, local government has expanded key leadership and staff positions with the additions of a new CAO / city manager, a new deputy CAO, a new economic development officer, and more planning and communications staff to pursue new opportunities, as well as efforts to rebuild relationships with industry and First Nations groups. Prior to the announcement of the KMP, local government and industry relations had been impacted by disputes with RTA over its Kemano hydro power project and as smelter jobs were reduced with the adoption of new production technologies.

Building upon the general topic of working relationships, mechanisms, such as the Leadership Group, the Social Impact Committee, the Interagency Committee, the Kitimat General Hospital

Foundation, and the Housing Committee were used to strengthen cooperation between industry, local government, local stakeholders, and senior levels of government to address challenges and opportunities related to rapid growth. Despite these mechanisms that have been put in place to build industry-community relationships, attention to legacy investments and a long-term vision for the community remains a challenge.

While fiscal pressures persist, the stability of community social services has been supported by the local government's initiative to establish a \$200,000 emergency fund for social services in 2013. By working with local government staff, community groups were able to secure support for a housing resource worker, open an extreme weather shelter, and pool resources to explore social housing needs. For example, engineering and planning expertise was shared in order to move social housing initiatives forward and many local government staff volunteered at the emergency shelter that was originally established at the local fire hall. Industry, businesses, District staff, and community organizations also shared volunteers to support other initiatives, such as the Humane Society, the food bank, Radley Park, and various events and fundraising initiatives. Through the Age-Friendly Committee, Measuring Up the North, and the Retire in Kitimat initiative, local government leaders have also been working together with community groups to diversify the economy and respond to the needs of an aging population.

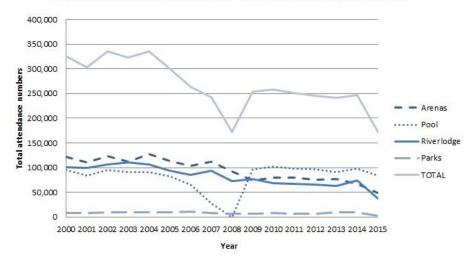
The local government has worked through several difficult issues, including concerns about further downloading of responsibilities from senior levels of government, as well as the loss of human resources to support planning and development during the three month municipal job action in 2015. During this period, there were also concerns regarding the effectiveness of communication initiatives to address key areas of debate and divisiveness within the community (i.e. escort service, PTI camp, Northern Gateway Pipeline Project).

RECREATION

Recreation can play an important role to improve local quality-of-life in order to attract and retain workers, families, and businesses. There can also be opportunities to provide recreation and tourism experiences for mobile workers. Prior to Eurocan's closure in 2010, a large industrial tax base provided the support needed to develop a broad range of recreational facilities and programs. It was during the 2008 recession that construction on the Sam Lindsey Aquatic Centre was completed. Recreational groups, however, experienced a decline in membership due to out-migration and more restricted household budgets for those remaining in the community. This led to an increased demand for subsidies to support access to recreational programs. Groups also faced challenges to recruit coaches and volunteers to deliver programs and smaller events. Some mobile workers coached basketball and assisted with improvements at Radley Park. However, there has been a risk of losing facilities, most notably the golf course as it has struggled with a lack of volunteers and deficits.

As large-scale industrial projects emerged since 2011, attendance figures at Kitimat's recreational facilities stabilized. While an influx of a large mobile workforce can prompt concerns about residents' access to recreational facilities in rapidly growing towns, attendance figures in Kitimat suggest that such pressures never materialized. The work camps were well equipped with recreational facilities and workers were provided with regional tours. However, there were also more industry bookings to use meeting rooms at local facilities. At times, recreational amenities received industry bookings that exceeded their capacity; thereby, prompting a need to reorganize processes for booking. Changes in shift rotation schedules also meant that worker activities in the community were planned during evenings. As construction peaked in 2014, there were concerns that changes to adopt longer shift rotations were starting to impact worker engagement in evening activities.

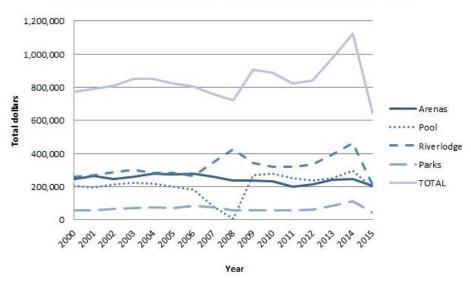
Recreation Facilities Attendance: Kitimat, 2000-2015



Source: District of Kitimat, 2016.

Revenues increased for recreational facilities, such as the aquatic centre and arenas as the KMP reached peak construction and as other LNG proponents continued their preparations. The arrangements made with Bechtel for industry workers to use Riverlodge for organized activities provided an important influx of revenue to maintain these facilities. At Riverlodge, the local government leases space to the Kitimat Snowflake Seniors' Centre for \$1 while providing discounted rates to access other facilities and equipment. The local government also supports a program coordinator for the seniors' centre. New adult hockey teams emerged and Leisure Services was selling more ice time. The three month municipal job action in 2015, however, also had a considerable impact on the attendance and revenue for Kitimat's recreational facilities.

Recreation Facilities Revenue: Kitimat, 2000-2015



Source: District of Kitimat, 2016.

In Kitimat, industry has always played a strong role to support the development of recreational assets, organizations, and events through sponsorship, as well as through donations of land and materials to develop and maintain outdoor recreational assets such as soccer fields, the golf course, parks, campsites, and hiking trails. Industry and contractor donations have also supported the purchase of recreational equipment and sports programs for youth. In the past, however, industry specific events had strong participation from the community – something that strengthened industry-community relationships. A large influx of mobile workers meant that residents were only invited to participate in events that were not full. At the same time, however, the local government, through their Leisure Services Department, has partnered with the Haisla to support the Kitimaat Open Basketball Tournament; making recreational events an important tool to nurture collaborative working relationships between the two parties.

Since 2011, concerns have continued to emerge about aging infrastructure to support recreation and tourism. With increased demand for accommodations, rapid growth has also impacted the ability to host local tournaments; thereby, requiring local sports teams to routinely travel for competition.

ENVIRONMENT

In Kitimat, the environment and pursuits to nurture a good quality-of-life as it relates to health, recreation, and economic development have continued to be part of comprehensive planning practices introduced by Clarence Stein. The strong connection that residents have to their environment was clear throughout the tracking study as people talked about their desire to have waterfront access; to ensure symbols were put on drains indicating their connection to important salmon habitat; to save sidewalks to facilitate walking throughout the community; to preserve evergreen trees in the downtown core; to improve infrastructure that would allow residents, workers, and visitors to enjoy the surrounding environment; and a strong interest to pursue opportunities to connect seniors, workers, and other residents with fishing, hunting, boating, kayaking, skiing, hiking, biking, snowshoeing, and other recreational opportunities.

Two issues emerged through the tracking study that reinforced the significance of the environment for residents. The first concerned the Joint Review Panel for Enbridge's Northern Gateway Pipeline Project hearings that began in early 2012 with recommendations released in December 2013. At a projected cost of \$6.5 billion, the project would transport bitumen and condensate from Alberta's oilsands to the port in Kitimat via two pipelines (Rowland 2014b). As a part of the project, the company proposed to construct two marine terminals and a tank farm to store crude oil before it is shipped to overseas markets. It also projected it would provide 180 permanent jobs in the community. There were concerns, however, about the potential impacts from tanker accidents and pipeline leakages. The Douglas Channel Watch and the Kitimat Valley Naturalist Club organized their local capacity and networks with regional and provincial stakeholders to deliver testimony in opposition of the project and to work together in advance of the local plebiscite vote. On April 12th, 2014, 58.4% of voters opposed the Northern Gateway Project. While Council was not bound to accept or adopt the results of the plebiscite, it quickly moved to a 4 to 1 vote in which they upheld the plebiscite results and officially took the stand to oppose the Enbridge Northern Gateway Project (Rowland 2014a).

The second key issue concerns the relationship between air quality and the cumulative environmental impacts from multiple industry projects. A longstanding issue in the community has been the level of sulphur dioxide emissions. The pressure from these issues has clearly shaped Rio Tinto Alcan's composition of their advisory committee, with strong representation from environmental and recreation groups (see Appendix C). Despite these consultations, concerns persisted with pursuits with the Environmental Appeal Board to challenge a provincial permit provided in 2013 that authorized new emission levels from RTA's smelter facility (Stueck 2014). The KMP has equipped the new smelter with improved technology to reduce emissions; but there are concerns that increased production and new LNG developments could exacerbate emissions within the airshed. In 2013, the BC Government responded by funding a scientific study to determine the impacts of LNG developments on the regional airshed around Kitimat (ESSA Technologies et al. 2014). The report released in 2014 suggested that the airshed could accommodate industrial growth; although there would clearly be more sulphur dioxide and nitrogen dioxide in the airshed.

SAFETY

Concerns about the impact of rapid industrial growth on community safety are an important issue influencing industry and community relationships. In this context, one factor influencing industry decisions to house workers in work camps is to improve their ability to contain negative behaviors and criminal activity for nearby communities. Protocols, policies, and code of conduct agreements have become key components of workforce contracts and orientation for both employees and contractors (Creating Communities 2012).

One of the most difficult issues to resolve concerns local perceptions of crime and safety. The District of Kitimat has requested routine police reports on crime and traffic statistics. In general, there were concerns about break and enters, financial fraud, and drug and alcohol abuse that have historically been associated with rapid growth; although, crime rates in Kitimat were lower than typically expected for rapidly growing regions. When these reports were combined with other initiatives such as work camp tours and initiatives to engage industry workers in community events and organizations, it became easier for these perceptions to be addressed.

There are some important issues, however, that require attention to safety infrastructure and services. The increase in traffic for commuting and supporting the transportation of materials has increased concerns about road safety, particularly during the winter months. The volume of RCMP and emergency calls, however, has declined since the spring of 2014. Efforts to control the volume of potential calls has been aided by safety and security supports that industry has put in place on their sites; thereby, allowing police and emergency supports to focus on incidents in the broader community. These concerns have also been eased through municipal, highway, and forestry road improvements; and the use of charter and commercial flights and busses to transport workers. The RCMP continue to liaise with industry, camp security, and the Kitimat Interagency Committee to monitor emerging safety issues.

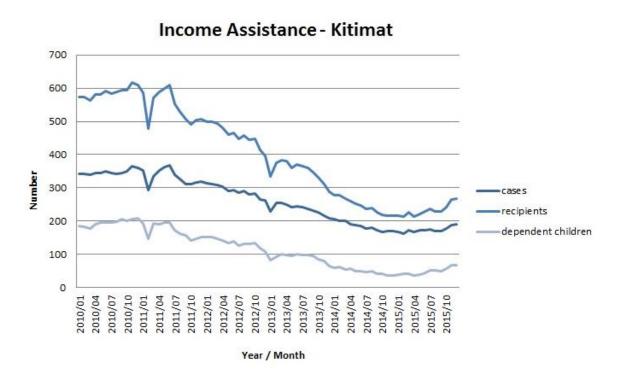
There have been difficulties recruiting and retaining experienced emergency staff resources. The RCMP, at times, have faced challenges to respond to increased pressures associated with rapid growth due to a lack of RCMP officers, the recruitment of inexperienced officers, and difficulty recruiting and retaining victims service workers due to difficulty competing with industry wages. A change from volunteer to paid fire department staff has helped to address some recruitment issues with the local fire department. While continuing to deliver fire suppression services throughout the community, the fire department has been completing industry inspections to support construction activities. These pressures have been partially mitigated through industry funding and strategic hiring to obtain needed expertise of industry structures. New arrangements for provincial resources, however, have failed to recognize the unique context of rapid growth pressures in Kitimat; even undermining the capacity of emergency supports to address construction and broader community needs. In a two stage payment scheme, the Province only covers costs associated with 'normal' call volumes without taking into account additional workloads associated with industrial site inspections and emergency service needs; thereby, leaving the municipality to cover the costs of supporting this

aspect of industrial growth until new arrangements can be developed with industry. Unfortunately, the extent of these costs are not easy for local governments to anticipate upfront, especially when there are multiple industry proponents and projects under development. The District has now updated fire bylaws and inspection processes in preparation for future booms. Moving forward, emergency service personnel have gained important experience working on large industrial projects, making it easier to provide emergency and safety services and apply fire and building code inspections to industry, contractors, and work camps. There is still a need, however, to develop a dual municipal / industry emergency service provision strategy.

Housing pressures and violence against women continue to exacerbate challenges for vulnerable women in the community and increase pressures on community supports. In 2013, safety concerns emerged about escort workers in town. It prompted the District to revise its business bylaws to define escort services, to develop regulations to restrict the hours of operations and access to escort services, and to determine business licensing fees (District of Kitimat 2013b). The Sexual Assault Team has also developed protocols to respond to crises. The Social Impact Committee toured areas that were identified to pose safety concerns to women and have brought these issues forward to industry. An important challenge to address these forms of safety issues, however, is that many events related to violence against women continues to go unreported. Several new program initiatives were introduced, including more cultural awareness programs, as well as new programs delivered through the Tamitik Status of Women for men to develop leadership and address violence in the community. Several community stakeholders have also been engaged with a project through Guelph University to develop a Community Vitality Index that is designed to strengthen the perspectives of women in planning and policy initiatives.

SERVICES

While the community has had a good breadth of social, health, education, and other related community services, there have been many changes in the demand for supports and programs since 2010. The Eurocan layoffs and closures led to an increase in residents requiring income assistance; a stress that persisted before declining rates took hold in 2012 as residents obtained employment or left the community as living costs increased. Rapid growth has also produced an increased demand for community supports due to rising housing costs, 'renovictions', overcrowded housing, and limited disposable income for non-industry workers to address other household and personal needs. In terms of community services, there has been an increased demand for preschool programming, child development supports, parenting supports, immigrant services, emotional supports, health programs for seniors and disabled residents, and supports for unemployed residents. The demand for community services also became more diverse and more acute; thereby, intensifying the pressures on limited resources in the community. As more women became engaged in industry and camp related jobs, there was also an increased demand for childcare. This demand for childcare was difficult to accommodate, however, due to demand and the mismatch between daycare and shift rotations, leaving some families to commute to Terrace to access daycare.



Source: BC Statistics, 2010-2015.

Several new program initiatives were introduced. Positive contributions have been made to support Early Years centres and address the needs of older residents through the Better at Home program. To address food security issues, organizations such as the Kitimat Food Bank,

Food Share (KCS), local schools, local churches, Overwaitea, SuperValu, industry, taxis, and residents have been working to gather donations and distribute food through hampers and lunch programs. Higher grocery store sales, however, meant that there were fewer goods left over to donate to food programs as the KMP reached peak construction and other LNG projects intensified their site preparations. A number of residents collect and repair clothing that is donated to Dunmore House. Immigration and cultural services continue to be strengthened through the provision of supports offered by the Community Development Centre (CDC), Kitimat Community Services Society (KCSS), the public library, and the Multicultural Association; although, there was also a sense that some new immigrants become integrated into the community through the networks and events of businesses.

There were also considerable health care pressures through this period of rapid growth. People with mental health disabilities have been affected by housing pressures and limited mental health supports in the community. Another gap in community supports involved initiatives targeting men's health. Workers can be reluctant to pursue support for mental health and substance abuse issues "due to embarrassment, the fear of losing their employment and concerns with trust and confidentiality, or they may not be aware of the services available through their employer" (Northern Health 2012: 11). Mental health first aid programs are providing work sites with new tools to better connect mobile workers with adequate supports (Torkington et al. 2011). In Kitimat, Bechtel has also been providing workers with information packages to promote health tips concerning nutrition, exercise, and healthy weights (Northern Health 2012). Provincial services have also been strengthening synergies with industry. Northern Health, for example, has been interested in the development of RTA's health strategy for workers. The District of Kitimat, RCMP, and Northern Health have also teamed up to produce the documentary "Where are the men?" that promotes men's health issues (http://www.kitimat.ca/EN/meta/news/archives/2013/mens-health-where-are-the-men.html). There continues to be a limited understanding, however, of the extremes related to mental health issues in work camps.

Health care infrastructure and supports, such as access to doctors, availability of beds, and emergency room wait times, were perceived to be strained during the tracking study. There were more fly-in / fly-out medical staff observed to be working in the community. Throughout this period, the Health Advocacy Group, the Kitimat Hospital Foundation, the NHA, the Hospital Auxiliary, and the Kitimat Housing Committee have pursued important projects to better position health care supports through emergency room renovations, acquiring new hospital equipment, and fundraising to expand multi-level care units. Industry and work camps also ensured that more medical supports were put in place to alleviate local health care pressures.

Collaboration

The looming 2008 recession and eventual closure of Eurocan led to the development of new structures and mechanisms to strengthen collaborative responses to socio-economic pressures. The community started two "dialogue" groups. A Tier One dialogue group focused on economic opportunities and challenges, while a Tier Two dialogue group focused on social and

community matters. Membership in the Tier Two dialogue group was inclusive of public and voluntary/non-profit service providers. While most groups were from Kitimat, there was also attendance from several Terrace-based groups that provide services in Kitimat. In October 2007, the Kitimat/Terrace Tier 2 Impact Dialogue Group facilitated a planning meeting in Kitimat. The rationale for the meeting was to be more prepared for the future by 'getting ahead of the curve'. The planning meeting included presentations by the local Chamber of Commerce and Alcan. These presentations helped to set the stage with respect to the scope, scale, and timing of potential effects from the smelter modernization project as well as some smaller and related proposed projects. To support this two-stage approach, those at the planning meeting endorsed using the existing "Interagency Committee" as a working group to deal with the approaching changes. The Interagency Committee was a routine informal gathering of social service and community groups where people shared information about their activities. These meetings were routinely attended by industry. Since then, LNG Canada has gone on to engage a number of service agencies in its public advisory group as well (Appendix C).

Kitimat/Terrace Tier 2 Impact Dialogue Group Membersh	nip
Adult Literacy	Kitimat Victim Services
Adult Mental Health	Make Children First (Terrace)
Alcan	Ministry of Children and Family Development
Axis Family Resources	Ministry of Employment and Income Assistance
BC Schizophrenia Society	Northwest Community College
Child Care Resource and Referral	Northwest Regional Hospital
Coast Mountains School District #82	Public Library
Community Development Institute, UNBC	RCMP
District of Kitimat – Council	Robin Austin, MLA
District of Kitimat - Recreation	School Trustee
Family Justice Center	Skeena Diversity Committee (Terrace)
Kitamaat Village Council	Tamitik Status of Women
Kitimat Chamber of Commerce	Terrace Child Development Center
Kitimat Child Development Center	UNBC – Terrace Campus
Kitimat Community Services	

Source: Kitimat Child Development Center, personal communication, 2014.

Shortly after the planning meeting, the Interagency Committee expanded its membership and the preparatory work around gathering information, keeping one another up-to-date, and learning to work together cooperatively got under way with monthly meetings at the local Child Development Center. Even though the Alcan modernization project was put on hold when Rio Tinto purchased the company (to create Rio Tinto Alcan (RTA) now simply called Rio Tinto), the Kitimat/Terrace Tier 2 Impact Dialogue Group continued to gather information on community and economic change and began to develop a wide number of joint initiatives, funding applications, and programs. Through the dialogue, the group acted as an early warning system for the community with respect to some of the more subtle socio-economic changes in the community.

There have been several other collaborative structures that have emerged based on common interests to address important topics such as youth programs, air quality, housing, economic development, poverty, physical and mental health, seniors' needs, religious services, and disaster management. These have included the Housing Committee, the Violence Against Women in Relationships Coordination Committee, the Community Response Network, the Early Years Initiative, Integrated Case Management teams, the Community Foundation, the Health Advocacy Group, and the Hospital Foundation. Through these collaborative structures, service agencies improved communication and access to information; improved their understanding of protocols and procedures; improved access to a broader range of resources and expertise; shared human resources to deliver joint events; achieved more efficient operations through joint service agreements, new protocols, changes in administrative or organizational structures, and expanded operations; and determined who could best address local gaps. Stakeholders also used these networks to nurture negotiations and discussions about specific topic areas such as housing, health care, revenue sharing, and community development.

Some stakeholders we spoke with, however, felt that cooperation was restricted, sporadic, or scattered. Overlap in programs and activities continued as some groups operate in silos. Another concern involved challenges moving beyond sharing information towards more action-oriented activities within these collaborative groups. Collaboration was also impeded by a lack of time, commitment, different expectations and scales of operation, different mandates and regulations, different approaches to partnership management and activities, an unwillingness to share resources, previous conflicts, and limited understanding of protocols for engaging with industry and First Nations organizations. There was also a lack of funding, staff, and space to support partnership work at a local and regional basis. It posed challenges to get to know potential partners, to establish routine meetings and communication, and understand different viewpoints, priorities, and pressures that affect how other groups engage in collaboration.

Organizational Change

In terms of organizational policies, few organizations were renewing their mandates and policies to reflect the new pressures, needs, relationships, and realities of current growth. Some mandates and policies were changed to accommodate new age groups, broaden supports for those living in poverty and requiring broader palliative care supports, or develop new protocols to respond to violence. In some cases, organizations are developing new organizational structures (i.e. committees, integrated management teams, coordinated response teams, one-stop shop for information, etc.) to respond to the changes associated with rapid growth.

Funding

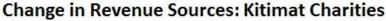
Prior to this period of rapid growth, cuts were made to community / social services during previous recession periods in the province. This produced a series of human resource pressures, including a lack of social service professionals, expanded workloads, and burnout. Once community groups lost provincial funding, it was difficult to re-establish those financial resources. Figures from Revenue Canada show that while the KMP and the LNG proponents

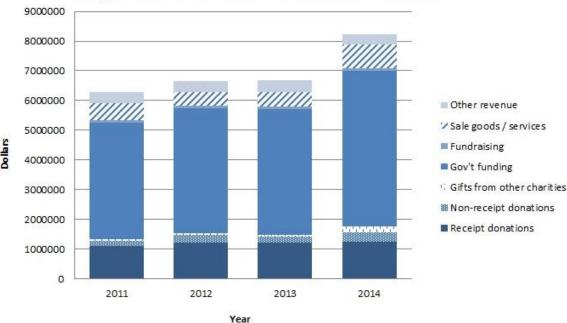
were actively engaged in demolition, construction, and site preparation for large-scale industrial projects since 2011, there were no increases in provincial funding to assist community organizations to respond to the pressures associated with rapid growth until 2014 – the peak year of construction for the KMP. The increase in funding during this fiscal year, however, was not due to an increase in support to expand staff resources for existing programs but rather due to new contracts that were pursued by non-profit groups. There were almost no changes in federal funding.

Change in Government Funding: Kitimat Charities 9000000 8000000 7000000 6000000 5000000 Fed govt 8 4000000 3000000 Local govt 2000000 Total revenue 1000000 2011 2013 Year

Source: Revenue Canada, 2011-2014. Note: 2015 figures not compiled due to missing figures from some groups.

In response, organizations have been diversifying their financial assets to obtain food and supplies for clients, rental subsidies, and support for community programs. Industry projects have benefitted service organizations through monetary, material, and equipment donations for programs and events, especially as construction and project planning reached peak production. This was a change from earlier years in the tracking study when an economic recession had prompted a suspension of RTA's donation programs. A new issue stemmed from debates about the ethical implications of accepting donations from Enbridge. Some suggested that there was no change in the level of industry support as industries have chosen to more broadly distribute funds throughout the region. There was a sense that more investments will be encouraged after final investment decisions for LNG projects have been made.





Source: Revenue Canada, 2011-2014. Note: 2015 figures not compiled due to missing figures from some groups.

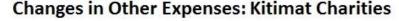
The financial health of community groups has also been strengthened through the efforts to diversify revenue streams from sales of goods and services, small business donations, memberships, and other general donations. While funding pressures persist, the stability of community social services has been supported by the local government's initiative to establish a \$200,000 emergency fund for social services. In the case of the Community Foundation, funds raised through the telethon are leveraged to obtain matching support from the Northern Development Initiative Trust. Community stakeholders have also been pooling their resources together for fundraising initiatives and to share training and development costs.

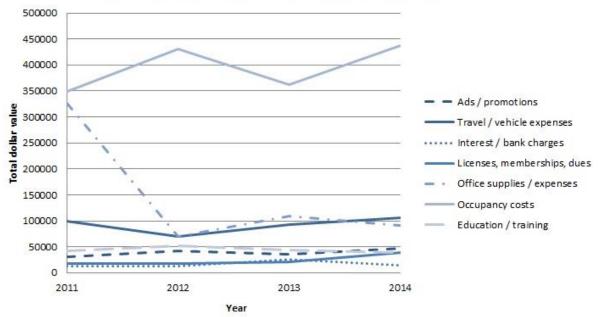
Participants noted, however, that there continue to be barriers impeding access to financial resources. Organizations may encounter difficulty working through funding application processes due to limited and declining funding opportunities, uncertainty about grant criteria, difficulty working through funding applications, and a need to allocate limited organizational resources to complete capacity assessments to support funding applications. As community groups have approached industry for funding, there have been difficulties with new formal granting and decision-making processes centralized in distant head offices. There have also been communication challenges stemming from staff turnover and a limited understanding that various community stakeholders had of the different priorities and processes of each industry.

As rapid growth intensified demand for support provided by community services, organizations were struggling to respond to high staff turnover rates, difficulty recruiting staff and volunteers, and difficulty competing with wage grids offered by industry and other public sector agencies. These human resource pressures led to increased workloads, fewer board meetings, fewer

outreach activities, and increased pressure on management to cover periods of staff shortages. There were organizations that also lost board members due to out-migration; some of these losses meant a loss of First Nations and industry representation, but there were also strategic decisions to reduce the size of the board of directors. Organizations were strengthening their human resources by strategically investing in practicums, mental health first aid training, and cultural awareness. Services are also examining ways to share administrative, maintenance, and operational staff in order to maintain infrastructure and manage the delivery of programs. Furthermore, industry workers have donated time to support community groups and initiatives such as the Aluminum City Telethon, the food bank, and the animal shelter. Stakeholders we spoke with noted that it was not just large industry that was providing community support, but that many contractors and professional firms were engaged in community outreach activities.

The ability of stakeholders to manage the pressures, however, has been impacted by limited building or office space for organizations to operate their programs due to high rents and increased competition for space as commercial landlords look to optimize their financial benefits from this period of growth. Limited access to storage space was also an important issue. There were organizations, however, that were pursuing new arrangements to share space with other organizations for the temporary delivery of programs or obtain affordable space from the District and the Northwest Community College. Community organizations have also significantly reduced expenses related to office supplies while maintaining consistent expenditures for education and training, travel, advertising, licensing and membership dues.

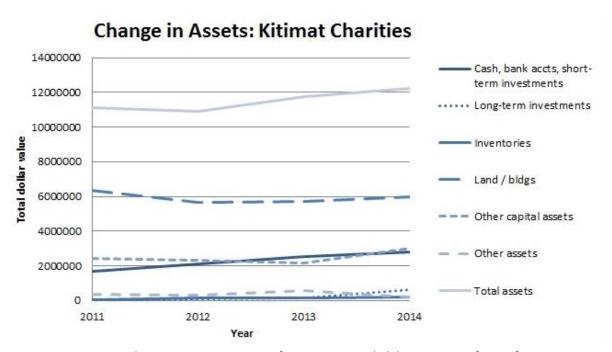




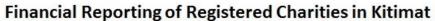
Source: Revenue Canada, 2011-2014. Note: 2015 figures not compiled due to missing figures from some groups.

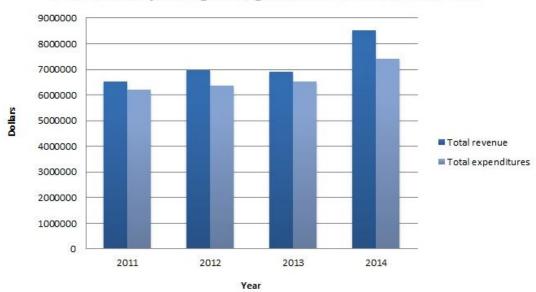
Throughout this tracking period, community organizations have experienced only a small improvement in their total assets. Short-term investments and inventories have continued to

grow. However, efforts to support the social sector and community development initiatives have been impacted by both the limited availability of land in the community's core to support new infrastructure investments, and the absence of a local infrastructure fund that needs to be in place before pursuing contributions / matching funds from industry. Despite these pressures, Revenue Canada figures suggest that total revenues have continued to outpace increases in operational costs for community organizations during this period of rapid industrial growth.



Source: Revenue Canada, 2011-2014. Note: 2015 figures not compiled due to missing figures from some groups.





Source: Revenue Canada, 2011-2014. Note: 2015 figures not compiled due to missing figures from some groups.

TRANSPORTATION

As communities experience rapid growth and development during construction periods, there are notable increased demands placed on transportation infrastructure. In Kitimat, the construction and operational phases of large-scale industrial projects has not only produced more highway traffic, but it has also increased the demand for helicopter services, charter services, and commercial flights. The key pressure has been the ability to manage the growth in passenger traffic at the Northwest Regional Airport. The table below shows the total number of passengers from 2011 to 2015. During this total period, passenger traffic increased by 138% to reach a peak volume of more than 290,000 passengers in 2014, before declining slightly by 4.7% in 2015. The total number of passenger flights also increased by almost 82% from 2010 to 2015, reaching a peak of 8,786 passenger flights during the final year of the KMP. During this growth, Air Canada added more flights in 2013, with WestJet starting to service the Northwest Regional Airport the following year. In response to this increased airport traffic, important investments have been made to expand industry parking compounds at the airport.

Total number of airport passengers – Northwest Regional Airport						
Year	Total Passengers	% Change				
2011	121,805	n/a				
2012	n/a*	n/a				
2013	184,878	n/a				
2014	290,383	57.1%				
2015	276,879	-4.7%				

*Note: no data available as the airport was not listed in data set provided for top 50 airports. Source: Statistics Canada 2015, catalogue no. 51-203-X.

Total number of passenger and cargo flights – Northwest Regional Airport							
Year	Passenger flights Cargo flights Total flights % Chang						
2010	4,832	949	5,781	n/a			
2011	5,178	927	6,105	5.6			
2012	n/a	n/a	n/a	n/a			
2013	n/a	n/a	6,741	n/a			
2014	8,018	908	8,926	32.4			
2015	8,786	908	9,694	8.6			

*Note: no data available as the airport was not listed in data set provided for top 50 airports for total combined traffic. Source: Statistics Canada 2015, catalogue no. 51-203-X.

Another key issue has been the availability of local and regional transportation to support a broader workforce and range of mobility needs. With the loss of Eurocan and an early decline in the economy during the initial stages of the tracking study, the airport shuttle was eliminated, leaving residents with limited transportation options. In 2013, a taxi shuttle service to the airport was developed on a trial basis and the local government continued to subsidize the service the following year. Throughout the study, industry contracted the Haisla shuttle service to support the influx of mobile workers in accordance with shift rotation schedules. The local government has worked with industry to explore the feasibility of ferry service to improve the

ability of residents in other small Aboriginal villages further down the coast, such as Klemtu and Bella Bella, to commute for job opportunities and access to services in Kitimat. The feasibility study was provided to the provincial government; no additional actions were undertaken during the tracking study. During peak construction in 2014, a lack of available parking at MK Bay Marina was reported. There was some disruption to activities as the Haisla worked to develop a new gas station at the marina.

There was also an increase in company vehicles, flat bed trucks, and dump truck traffic in town and along the highway. The Haisla Bridge in Kitimat, which is the only connection between the townsite and the industrial areas, has aged considerably and was not designed to support the extent of heavy industrial traffic. At times, the bridge has been closed to get wide loads across. Intermittent repairs have been done to the bridge throughout this period of rapid growth, with more significant senior government investments to replace the bridge pending upon FIDs by other large LNG projects.

As the KMP approached completion, reduced industry and commuting traffic eased the pressure on local roads and highway networks. Chevron, however, completed an upgrade to the Bish Forest Service Road to support the Kitimat LNG Project. Rio Tinto also submitted an application for its wharf expansion to the province.

VOLUNTARY SECTOR

In rapidly growing places, community engagement can be beneficial to mitigate fears of mobile workforces, connect people with important supports, and alleviate social isolation and negative behaviours (Creating Communities 2012). Prior to industry closures, there were many vibrant community groups and well attended events in Kitimat. Following the closure of Eurocan in 2010, however, volunteer groups had fewer members and volunteers to support services and programs. At the same time, the volunteer base has been aging. These challenges have continued to persist during rapid growth where the voluntary sector has been impacted by volunteer burnout, inactive membership, more competition for volunteers, high turnover amongst board and leadership position, a preference for short-term volunteer commitments, and a lack of leadership and volunteer renewal. The Ministerial Association has offered leadership programs to build the capacity of the non-profit sector.

Limited engagement by younger residents was also weakening the cultural assets and traditions in the community. There were some arts and cultural groups, such as the Concert Association, the Italian Club, and the Filipino group, that were starting to gain new members. Despite the pressure on members and volunteers, cultural organizations continue to hold several annual events. Outside of these events, however, there was a general sense that cultural groups have had less engagement. While some participants noted that relations with the Haisla have improved through more routine interaction and meetings to improve cultural awareness, there was a perception that Aboriginal cultural assets have been underutilized with calls for more opportunities for elders to share their stories through school visits and museum / mall displays.

The voluntary landscape was also changing with less interest in service clubs, declining church membership, and more interest in environmentally-based or recreationally-based groups. For example, some environmental / recreational organizations benefitted from younger volunteers equipped with social media skills to compliment the personal communication used by older volunteers. In response, the Rotary Club opened it membership to female leaders. There were also clubs, such as the Legion and the Luso Club, that expanded their membership to industry workers and generated revenue from catering to industry. Other groups have struggled to renew their mandates in order to remain relevant to new emerging pressures and interests.

Voluntary organizations were struggling to obtain access to meeting space due to the increased number of bookings for space throughout the community; although, many continued to access space at the public library, various churches, the Chamber of Commerce, the hospital, the NWCC, the Luso Club Hall, and Riverlodge. While some groups have looked for opportunities to strengthen the social infrastructure to support voluntary groups, there has been limited land available to address these pursuits. At this point, groups have also been unsuccessful securing legacy infrastructure investments to support the endeavors of the voluntary sector.

Equipment needs, such as computers, desks, and vehicles are also needed to support voluntary sector activities. Some volunteers have been using their own computers to support programs, thereby impacting the stability of activities as volunteers have fluctuated during this period.

Moving Forward

With one major industrial project completed, and several others potentially to come in the future, Kitimat has experienced rapid 'boomtown' development, change, and transition. The arrival of several thousand temporary construction workers for the KMP as well as those engaged with early site preparation work for some of the pipeline and LNG terminal projects has meant a range of community pressures.

The business community has gained experience and developed a stronger capacity to work on future large-scale industrial projects both in Kitimat and around the Northwest region. Despite some reservations about the overall scale and capacity of small local contractors and businesses to have the capital and resources necessary to benefit from opportunities associated with large-scale industrial developments, the KMP and the development of joint business ventures has provided stakeholders with the scale and confidence needed to bid and support industry contracts. Initiatives to renovate commercial infrastructure and attract new franchises and professional services has also helped to diversify the local economy. As the community prepares for the next period of large-scale industrial development, business development could be further nurtured by strengthening import and export strategies. There is also a need to continue to renew aging commercial infrastructure, engage in succession planning, and further diversify economic development.

The training and work experience obtained through the KMP and early developments in other resource sector projects is also helping to better position Aboriginal and non-Aboriginal residents for employment prospects with future industry projects. Industry is continuing to pursue highly skilled labour locally, regionally, and globally. With the influx of mobile workers and temporary foreign workers during the rapid construction period of the KMP, local leaders are monitoring actions to maximize employment benefits for residents with future developments. Business leaders noted that they were better positioned to anticipate the issues during future periods of rapid growth, including having a better understanding of the impact of high staff turnover and customer volume on operations. More attention, however, is needed to address the skills training needed for the next generation of trades workers and service sector workers to support long-term employment and development. Moving forward, there is an interest to focus on exposing youth to future job opportunities in trades for both the construction and operations of large-scale industry projects. There is also support to continue to broaden opportunities for financial literacy and financial planning.

Based on their experiences from the KMP, the local government and community stakeholders will continue to streamline their communication with industry through interagency meetings and a central point of contact with local government staff. There is a strong interest, however, to also obtain more direct information from senior levels of government to guide timely and effective planning and investments to support future projects. The local government is also

continuing to pursue a more progressive and positive approach to strengthen relations with First Nations as a foundation for both communities to collectively move forward with development initiatives. The transfer of the old hospital lands to be developed by the Haisla was highlighted as an important example. While some key investments in physical infrastructure have been delayed until final investment decisions, there are concerns that such delays will only increase the costs of those initiatives. It is urgent to address infrastructure deficiencies before the next period of rapid growth.

Despite changes in transportation infrastructure to better position the community for future periods of rapid growth, construction activities for industry could be hampered without strategic transportation investments, most significantly concerning improvements needed to the Haisla Bridge. Work shuttles have impacted the potential demand for local transit and regional bus service; however, strengthening these local and regional transportation options are important to support a broader workforce and range of residential needs.

The next generation workforce and long-term residents are going to look for high quality amenities and recreational opportunities. Aging recreational assets will need to be upgraded and expanded to provide diverse cultural and entertainment opportunities for residents with different interests and physical mobilities. The District is also looking to expand its campsite capacity. Building upon transportation infrastructure needs, expanding the marina capacity, developing a marine location for repairs, and developing more infrastructure for small aircraft would support both industry and recreational activity.

Over the last several years, the community has developed a greater awareness of housing issues that can develop quickly during periods of rapid growth. This awareness was strengthened through the Advisory Housing Committee and the process of developing a new Housing Action Plan for Kitimat. The Housing Committee, housing workers, and local government have been able to develop stronger relationships with rental property owners and managers. The overall capacity of the community to address housing pressures has improved with a greater variety of accommodations, accommodation prices, and housing supports. New bylaws are redirecting industry / work camp contributions to support future affordable housing investments. There are some concerns, however, that the collective capacity to manage housing pressures remains vulnerable. This is in part due to the limited human and fiscal resource capacity of churches and service clubs to manage non-profit housing investments. Housing developments can also have extensive timeframes that require consultations and environmental impact assessments, making them less responsive to rapid growth pressures.

Despite the considerable progress that has been made to improve the quality and diversity of the housing stock, more work must be done in this area. This includes attention to the expansion of subsidized housing, streamline housing application procedures, and securing stable funding to support the extreme weather shelter in advance of future industrial developments. With an aging workforce and growing retirement population, there was also interest to ensure that more affordable seniors housing is developed to retain retirement income within the community. As the community moves forward, stakeholders are discussing

the potential policy need to ban living out allowances that were deemed to drive increases in rental and renoviction rates in favour of managing worker housing through on-site accommodations. There was also a sense that housing subsidies need to be in place to support community service and retail sector staff before the next boom. Housing subsidy programs, however, can have some limitations and generate unintended consequences. Most notably, there are concerns that an increase in housing subsidy rates will only further exacerbate housing pressures and restrict the number of beneficiaries due to limited housing subsidy budgets.

During our tracking study, community service agencies were concomitantly confronted with the challenges of responding to the decline in the forest sector while preparing to respond to the pressures associated with rapid growth. As service agencies prepare for the next cycle of industrial growth, many are advocating for flexible, or 'accordion' funding to provide the necessary resources for community service agencies through boom and bust periods. In preparation for any future periods of rapid growth, mobile health care services can better position the community during large-scale construction periods, but should be supported by expanded services for mental health, addictions, as well as ensuring that a walk-in clinic is in place to handle the increased demand for minor health care services. As the community continues to promote the retirement sector as part of its economic diversification strategy, more work is needed to ensure that services are well supported for that strategy.

A number of voluntary groups are better situated to assist vulnerable residents and improve the local quality-of-life for residents through in-kind support, financial donations, and donations of supplies and equipment provided by industry, contractors, and small businesses. As construction companies depart Kitimat following the completion of KMP, there are concerns about the difficulties this may pose for voluntary groups during this transition period. Future investments also need to explore opportunities to ensure that non-profit and voluntary groups have the space they need to deliver supports throughout the community. There is also interest to use volunteer fairs in order to support the recruitment and development of a more resilient volunteer base.

APPENDIX A: METHODOLOGY

The data and information for this report was largely conducted through key informant interviews with local leaders, industry stakeholders, community services and voluntary organizations, businesses and general residents in Kitimat, BC.

Selecting Interview Participants

Since 2012, a research team representing the Canada Research Chair in Rural and Small Town Studies has visited Kitimat to conduct interviews with residents, service providers, local leaders, industry representatives, business leaders, and members of community groups. The interviews tracked changes in the community as a result of large-scale industrial development projects, changes with community engagement and capacity, changes in collaborative working relationships, and any new strategic actions and investments within the community.

Participants were recruited through publicly available lists. During our visits, a total of 204 interviews have been conducted since the first visit in 2012. The interviews lasted between 20 and 90 minutes. A general breakdown of interview participants is shown in the table below.

Distribution of In	terview Particip	oants - % of Partio	cipants		
Sector	First Visit	Second Visit	Third Visit	Fourth Visit	Fifth Visit
	2012	2012	2013	2014	2015
Community group	11.9	10.3	24.4	9.8	10.8
Business	9.5	2.6	11.1	17.1	10.8
Local government	28.6	38.5	26.7	26.8	21.6
Industry	4.8	2.6	4.4	9.8	5.4
Service provider	31.0	35.9	24.4	26.8	27.0
Seniors	14.3	10.3	8.9	9.8	24.3*
Total # of Participants	42	39	45	41	37

Source: Tracking Social and Economic Transformation in Kitimat Study.

Research Ethics

Research conducted by the Canada Research Chair in Rural and Small Town Studies team is bound by protocols at the University of Northern British Columbia that require all survey or interview guides be submitted to UNBC's Research Ethics Board for review. A key component to this protocol is to provide research participants with a copy of the consent form (Appendix B) that outlines the purpose of the study, how the research process will protect their anonymity and confidentiality, and that their participation is voluntary.

^{*}Note: a number of seniors were also heavily engaged in community groups and services.

Interview Questions

The purpose of this project is to explore and track the social and economic changes in Kitimat. The reports associated with this project assemble a summary of key issues as identified from our interviews. A detailed description of questions asked in each section of the interview guide is provided in the appendices (Appendix B). Over the years, participants were asked questions in the following areas:

- how community characteristics have changed over the previous year;
- broader responses of the community to planning and coping with changes;
- changes in relationships and partnerships across various stakeholders;
- how the capacities, networks, and other assets are used to manage the impacts of changes in the community; and
- critical pieces that still need attention in order to better position Kitimat moving forward.

Analysis

During each interview, comments were recorded and notes were taken. A summary file was created for each interview and was sent to individual participants for their review and clarification. After a final summary file was created for each interview, qualitative analysis was done to identify, code, and categorize patterns and themes that emerged from the data.

APPENDIX B: INTERVIEW MATERIALS

- 1. Consent form
- 2. Interview guides (Fall 2015, Spring 2014, Spring 2013, Fall 2012, Winter 2012)

Consent Form: Tracking the Social and Economic Transformation Process in Kitimat, BC

Research Lead:

Greg Halseth, Professor, Geography Program
Canada Research Chair in Rural and Small Town Studies
Co-Director, Community Development Institute at UNBC
University of Northern British Columbia, 3333 University Way, Prince George, BC, Canada V2N 4Z9
Tel: (250) 960-5826 Email: greg.halseth@unbc.ca Web site: http://www.unbc.ca/greg-halseth

<u>Purpose</u> – This project is being conducted by Greg Halseth, the Canada Research Chair in Rural and Small Town Studies and his research team at UNBC. The purpose of this project is to examine the impacts of major industrial and economic projects in Kitimat, BC. It will examine the benefits, challenges, and tensions created across various facets of the community. It will also explore how the characteristics of place, such as community capacity, relationships, infrastructure, and institutions, shape the experiences with, and responses to, new development.

<u>How Respondents Were Chosen</u> – Interviews are being conducted with local leaders, economic and industry representatives, community groups, service providers, and residents who have an interest in, and can provide insights into, the impacts of major economic projects in Kitimat. All of these names come from publically available community listings. Interviewees were selected for their potential to provide information that can help to better understand community preparedness, as well as the impacts of major developments on workers, their families, and the community. The interview should take about 30 minutes to complete.

Anonymity And Confidentiality - The names of participants will not be used in any reporting, nor will any information which may be used to identify individuals. All information shared in this interview will be held within strict confidence by the researchers. All records will be kept in a locked research room at UNBC and will be accessible only to the research team. The information will be kept until the final project report is complete. After which time, shredding and file erasure will destroy all information related to the interview.

<u>Potential Risks And Benefits</u> - This project has been assessed by the UNBC Research Ethics Board. The project team does not consider there to be any risks to participation. We hope that by participating you will have a chance to provide input into issues relevant to community responses to, and impacts from, major economic developments.

<u>Voluntary Participation</u> - Participation in the interview is entirely voluntary and, as such, interviewees may choose not to participate. Interviewees may choose not to answer any questions that make them uncomfortable, and they have the right to end their participation in the interview at any time and have all the information they provided withdrawn from the study and destroyed. The interview will be audio recorded for accuracy and a copy of the interview notes will be sent to the interviewee. They will have two weeks to provide any edits or corrections back to the research team.

<u>Research Results</u> - In case of any questions that may arise from this research, please feel free to contact Dr. Greg Halseth (250-960-5826, halseth@unbc.ca) in the Geography Program at UNBC. All participants will receive a copy of the final project report. The final report will also be posted on the Community Development Institute's website.

<u>Complaints</u> - Any complaints about this project should be directed to the Office of Research, UNBC (250) 960-6735, or email: reb@unbc.ca

I have read the above description of the study and I understand the conditions of my participation. My signature indicates that I agree to participate in this study.

(Name -please print)	(Signature)	(Date)

TRACKING THE SOCIAL AND ECONOMIC TRANSFORMATION PROCESS IN KITIMAT INTERVIEW GUIDE – FALL 2015

Interviewee Name:					
Contact Information:			_		
Connection/Role in the Co	mmunity:				
Interviewer:					
Date:	Place:				
Interview Time: Start	Finish				
Comments on Interview:					
We want to touch base ab community and your orga	-	over the past year	r and the bro	ader impacts fo	or your

- 1. How have the following characteristics changed in Kitimat over the past year?
- 2. Reflecting over the last few years, what were the most difficult issues to work through? Were those issues resolved? Why or why not?
- 3. How has your organizations changed as a result of these lessons / experiences?
- 4. How have your experiences over the last few years changed your perspectives and approach to future large scale economic or industrial projects?
- 5. How has the overall capacity of the community changed over the last few years?
- 6. How have priorities and strategic directions changed within the community?
- 7. What have been the most effective / important investments / changes in the community in order to better position Kitimat for renewed industrial activity?
- 8. What are the critical pieces that still need attention in order to better support and position Kitimat moving forward?
- 9. From the experiences you have had in the community, do you have anything else that has not been touched on here that you would like to comment on?

TRACKING THE SOCIAL AND ECONOMIC TRANSFORMATION PROCESS IN KITIMAT INTERVIEW GUIDE – SPRING 2014

Interviewee Name:
Contact Information:

Connection/Role in the Community:
Interviewer:
Date: Place:
Interview Time: Start Finish
Comments on Interview:
Part 1: We want to touch base about changes in Kitimat over the past year and the impacts you have noted for your community and your organization.
How have the following characteristics changed in Kitimat over the past year?
Have any of these changes impacted either yourself or your organization in any way? If yes, please explain.
How has the demand for your supports and programs changed over the past year? Please explain.
Do you feel that senior levels of government have been engaged and prepared to manage the challenges and opportunities associated with renewed industrial activity?
Part 2: Now we want to talk about the broader responses of the community to planning, preparing, and coping with changes in local industry.
What are the key pressure points within the community related to the economic transformation?
How have community development strategies, services, and programs been supported by senior levels of government?
How has the industry's relationship with the community changed since the resurgence of industry activity?
What would you describe as the key changes now occurring in the relationship between companies, senior levels of government, and community stakeholders / organizations?

How are community leaders and organizations responding to these new arrangements?

Part 3: Now we want to talk about the capacities, networks, or other local assets that Kitimat may or may not be using to help manage the impacts of these changes and investments.

How have community leaders and groups used their **social networks** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **political connections** and working relationships within **local government** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **political connections** and working relationships with **senior levels of government** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **access to financial capital** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **human capital (skills, experience, expertise)** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups designed and mobilized their **institutional capacity (mandate, policies, protocols, processes, etc.)** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **infrastructure** (i.e. space, equipment, physical infrastructure, etc.) to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **cultural capital (i.e. cultural traditions, societal norms)** to respond to challenges / opportunities as a result of the social and economic changes in the community?

How have community leaders and groups used their **natural capital (access to land / resources)** to respond to challenges / opportunities as a result of the social and economic changes in the community?

Concluding Question

From the experiences you have had in the community, do you have anything else that has not been touched on here that you would like to comment on?

TRACKING THE SOCIAL AND ECONOMIC TRANSFORMATION PROCESS IN KITIMAT INTERVIEW GUIDE – SPRING 2013

Interviewee Name:			
Contact Information:			
- -			
Connection/Role in the Con	nmunity:		
Interviewer:			
Date:	Place:	_	
Interview Time: Start	Finish	-	
			_
Comments on Interview:			
A1. How have the following	characteristics changed in Kitima	t over the past six months?	
A2. Have any of these chang	ges impacted either yourself or yo	ur organization in any way? If	yes, please explain.
A3. How has your personal	involvement in the community ch	anged over the past 6 months?	ı
A4. How has your organizat	ion's activities changed over the la	ast six months?	
A5. How has your organizat	ion's capacity changed over the la	st six months?	
•	ipon, from your perspective, are the state of the state of the economic transfer in the economic transfer is the economic transfer.		oints now or arising
Concluding Question			
From the experiences you h	nave had in the community, do you	u have anything else that has n	ot been touched on

here that you would like to comment on?

TRACKING THE SOCIAL AND ECONOMIC TRANSFORMATION PROCESS IN KITIMAT INTERVIEW GUIDE – FALL 2012

Interviewee Name:	
Contact Information:	
Connection/Role in the Community	y:
Interviewer:	
Date: Place: _	
Interview Time: Start	Finish
□ Interviewed in round one.	
Comments on Interview:	
Section A: Background Questions	
A1. How have the following charac	teristics changed in Kitimat over the past six months?
A2. What do you think have been s development projects in the comm	some of the benefits or positive impacts of industrial or large-scale economic nunity over the past six months?
	some of the concerns or negative issues created by industrial or large-scale the community over the past six months?
A4. Over the past six months, how quality-of-life?	do you think industrial / economic development projects have impacted local
Section B: Community Economic D	Development
B1. How would you characterize th groups over the past six months?	ne level of cooperation among local community and economic development
B2. What have been some of the k industrial development?	ey pressures that the community has faced with the influx of large scale
B3. Do you recall the key actions th	nat residents took to respond to these pressures / events?
B4. Did your organization play a ro	le to respond to these pressures / events? If yes, please explain.

B5. What other organizations played a central role to respond to these pressures / events?

B6. What additional changes, investments, or planning do you feel are needed to respond to the pressures facing the community?

Section C: Services

C1. Does your organization have a board of directors?
□ Yes (if yes, please go to question C2a)□ No (if no, please go to question C3)
C2a. If yes, how many board members does your organization have?
C2b. If yes, please list the types of board members that have been recruited (i.e. local representatives from local council, industry, business, or First Nations groups).
C3. How many members currently make up your organization?
C4. Are there any changes in the key services / supports provided by your organization?
C5. Has the focus / activities of your organization changed over the last six months? If yes, please explain the factors that have influenced these changes.
C6. How has your board membership changed over the past six months?
C7. How has your membership changed over the past six months?
C8. Has your organization experienced any changes with its logistical capacity over the past six months?
Section D: Partnerships
D1. Does your organization have any partnerships with volunteer groups, businesses, institutions, government inside of the community?
□ Yes (please go to question D3)□ No (please go to question D2)
D2. If no, what have been some of the key challenges / barriers to forming local partnerships?
D3. If yes, have there been any changes with your local partnerships over the past six months? If yes, please explain.

D4. Please list all the partnerships your group has with groups inside the community	D5. How would you rate the effectiveness of these partnerships with groups inside of the community?					
	Very Effective	Effective	Neutral	Not Effective	Very Not Effective	Don't know

D6. What were the key benefits / outcomes of **local** partnerships?

- D7. What made the local partnerships function effectively or not effectively?
- D8. Have any **local** partnerships been terminated / added over the last six months? If yes, can you describe the circumstances that influenced this decision?
- D9. Does your organization have any partnerships with volunteer groups, businesses, institutions, government **outside** of the community?
- □ Yes (if yes, please go to question D11)□ No (if no, please go to question D10)
- D10. If no, what have been some of the key challenges / barriers to forming partnerships with groups **outside** of the community?
- D11. If yes, have there been any changes with your partnerships **outside** of the community over the past six months? If yes, please explain.

D12. Please list all the partnerships your group has with groups outside of the community	D13. How would you rate the effectiveness of these partnerships with groups outside of the community?					
	Very	Effective	Neutral	Not	Very Not	Don't
	Effective			Effective	Effective	know

- D14. What were the key benefits / outcomes of partnerships with groups outside of the community?
- D15. What made partnerships with groups outside of the community function effectively or not effectively?
- D16. Have any partnerships with groups **outside** of the community been terminated / added over the last six months? If yes, can you describe the circumstances that influenced this decision?

Concluding Question

From the experiences you have had in the community, do you have anything else that has not been touched on here that you would like to comment on?

TRACKING THE SOCIAL AND ECONOMIC TRANSFORMATION PROCESS IN KITIMAT INTERVIEW GUIDE – WINTER 2012

Interviewee Name:
Contact Information:

Connection/Role in the Community:
Interviewer:
Date: Place:
Interview Time: Start Finish
Comments on Interview:
Opening Questions
What is your name and how long have you lived in Kitimat?
Can you briefly describe the role(s) that you play in the community?
Background Questions
I would like to talk about the period prior to the 2008 global economic downturn. How would you characterize
Kitimat's:
Prompts:
Economic structure
Local government
Employment opportunities
Opportunities for women
Opportunities for youth
Recreation and civic programs
Infrastructure (roads, pool, etc.)
Community / voluntary groups Social Services
Retail services
I/CLAII 3CI VICES

How have these characteristics changed since the 2008 global economic downturn?

Benefits

Thinking back, what do you think have been some of the benefits or positive impacts of previous industrial or large-scale economic development projects in the community?

Concerns

Thinking back, what do you think have been some of the concerns or negative issues created by previous industrial or large-scale economic development projects in the community?

Services

Prior to 2008, do you think local services were successful in meeting the needs of residents so they could pursue opportunities created through those industrial or large-scale economic development projects?

Thinking back, what additional services or supports, if any, do you think were needed to address local needs?

Community Economic Development

In terms of community economic development, what do you think are some of the key opportunities for your community?

In terms of community economic development, what do you think are some of the key challenges for your community?

How would you characterize the level of cooperation among local community and economic development groups?

How would you characterize community efforts to encourage or attract more entrepreneurs or businesses?

Quality-of-life

Prior to the 2008 global economic downturn, how do you think industrial / economic development projects impacted local quality-of-life?

Concluding Question

From the experiences you have had in the community, do you have anything else that has not been touched on here that you would like to comment on?

APPENDIX C: INDUSTRY COMMUNITY ADVISORY COMMITTEES

Rio Tinto Alcan: Kitimat Public Advisory Committee

BC Ministry of Environment

City of Terrace

District of Kitimat

City of Terrace

Douglas Channel Watch Society

Kitimat Health Advocacy Group

Kitimat Rod and Gun Club

Kitimat Valley Naturalists

Lakelse Watershed Society

Rio Tinto

Unifor 2301

Steelhead Society

Kitimat First United Church Source: Rio Tinto Alcan 2015.

ING Canada:	Community	Advisory Group

Stakeholder Role(s)

Environment Canada

Haisla Nation Council

Northwest Regional Airport, Chamber of Commerce, Kitimat Economic Development Association.

Kalum Land Resource Planning Committee (KLRMP), Northern Health

Fire Department

Haisla Elders Coordinator

Kitimat Valley Naturalists, former BC Parks / Parks Canada

Kitimat Valley Institute, Cancer Relay for Life

Credit Union, Chamber of Commerce, Aluminum City Telethon Committee, Advisory Planning Commission with District of Kitimat

Tamitik Status of Women

Kitimat Valley Institute, Kitimat General Hospital Foundation, Kitimat Concert Association

Retired supervisor of Rio Tinto Alcan

Kitimat Library Board, First Canada (transit), Emergency Social Service Director

Kitimat Public Library, Leisure Services Advisory Commission

Retired senior environmental technologist of Rio Tinto Alcan (waste reduction, recycling, disposal programs)

Source: LNG Canada 2014.

RESOURCES

Gillingham, M. P., Halseth, G. R., Johnson, C. J., & Parkes, M. W. (Eds.). (2016). *The Integration Imperative: Cumulative Environmental, Community and Health Effects of Multiple Natural Resource Developments*. New York: Springer.

Halseth, G. (Ed.). (2016). *Transformation of Resource Towns and Peripheries: Political Economy Perspectives*. London: Routledge.

Halseth, G., Markey, S. P., & Bruce, D. (Eds.). (2010). *The Next Rural Economies: Constructing rural place in global economies*. Oxford: CABI.

Markey, S., Halseth, G., & Manson, D. (2012). *Investing in Place*. Vancouver: UBC Press.

Ryser, L., Good, J., Morris, M., Halseth, G., and Markey, S. (2015). *Best Practices Guiding Industry-Community Relationships, Planning, and Mobile Workforces*. Prepared for the BC Natural Gas Workforce Strategy Committee. Prince George, BC: Community Development Institute, University of Northern British Columbia. Available on-line at: <a href="http://www.unbc.ca/sites/default/files/news/40513/lessons-learned-work-camp-community-relations-practices-making-positive-difference/best_practices_guiding_industry-community_relationships_and_mobile_workforces_final_march_2015.pdf.

Skinner, M. & Hanlon, N. (2015). *Ageing Resource Communities: New frontiers of rural population change, community development and voluntarism*. London: Routledge.

REFERENCES

BC Housing. 2016. Housing Initiatives. Available on-line at: http://www.bchousing.org/Initiatives.

BC Northern Real Estate Board. 2016. Average Selling Price (Year to Date): MLS Reported Sales – Residential Detached House. Prince George, BC: BC Northern Real Estate Board. Available online at: http://bcnreb.bc.ca/files/documents/2015ThirdQuarterNewsRelease.pdf.

BC Stats. 2016. Population Estimates: 2009-2016. Victoria: BC Statistics.

Brueckner, M., Durey, A., Mayes, R., & Pforr, C. 2013. The mining boom and Western Australia's changing landscape: towards sustainability or business as usual? *Rural Society*, 22(2), 111-124.

Creating Communities PTY Ltd. 2012. A Matter of Choice: capturing the FIFO opportunity in Pilbara communities. Perth, WA: The Chamber of Minerals and Energy of Western Australia and the Pilbara Industry's Community Council.

District of Kitimat. N.d. Secondary Suites. Available on-line at: http://www.kitimat.ca/EN/main/municipal/departments/community-planning-development/secondary-suites.html.

District of Kitimat. 2016. Recreational Facilities: Attendance and Revenue. Kitimat, BC: District of Kitimat.

District of Kitimat. 2015. Kitimat and Stewart Receive Funding for Infrastructure Projects. Available on-line at: http://www.kitimat.ca/EN/meta/news/archives/2015/kitimat-and-stewart-receive-funding-for-infrastructure-projects.html.

District of Kitimat. 2014. Bylaw No. 1841: A Bylaw to Amend the Kitimat Municipal Code with Respect to Land Uses Permitted in the M1 Manufacturing Zone. Available on-line at: http://www.kitimat.ca/assets/Municipal~Hall/Public~Notices/1841-14%20M1%20Manufacturing%20Zone.pdf.

District of Kitimat. 2013a. Kitimat to Reduce Property Tax for Renovated Commercial Buildings. Available on-line at: http://www.kitimat.ca/EN/meta/news/archives/2013/kitimat-to-reduce-property-tax-for-renovated-commercial-buildings.html.

District of Kitimat. 2013b. Written Public Comment – Escort Services. Available on-line at: http://www.kitimat.ca/EN/meta/news/archives/2013/written-public-comment-escort-services.html.

Ennis, G., Finlayson, M., & Speering, G. 2013. Expecting a boomtown? Exploring potential housing-related impacts on large scale resource developments in Darwin. *Journal of Studies in Human Geography*, 7(1), 33-42.

ESSA Technologies, J. Laurence, Risk Sciences International, Trent University, and Trinity Consultants. 2014. Kitimat Airshed Emissions Effects Assessment. Report prepared for BC Ministry of Environment, Smithers, BC.

Haisla Nation. 2016. Kitimat Valley Institute opens new trades center. Available on-line at: http://haisla.ca/kitimat-valley-institute-opens-new-trades-center.

Halseth, G. and Sullivan, L. 2003/2004. From Kitimat to Tumbler Ridge: A crucial lesson not learned in resource-town planning. Western Geography 13/14: 132-160.

LNG Canada. 2015. Learning as You Go. Available on-line at: http://lngcanada.ca/working-together/learning-as-you-go.

LNG Canada. 2014. Community Advisory Group. Available on-line at: http://lngcanada.ca/working-together/lng-canada-community-advisory-group.

Methanex. 2014. Methanex Corporate History. Available on-line at: https://www.methanex.com/sites/default/files/news/media-resources/MX-Corporate-History-2014.pdf.

Ministry of Community, Sport, and Cultural Development. 2016. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics index.htm.

Ministry of Community, Sport, and Cultural Development. 2015. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics_index.htm.

Ministry of Community, Sport, and Cultural Development. 2014. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics_index.htm.

Ministry of Community, Sport, and Cultural Development. 2013. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics index.htm.

Ministry of Community, Sport, and Cultural Development. 2012. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics index.htm.

Ministry of Community, Sport, and Cultural Development. 2011. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics_index.htm.

Ministry of Community, Sport, and Cultural Development. 2010. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics index.htm.

Ministry of Community, Sport, and Cultural Development. 2009. Local Government Statistics. Victoria, BC: Government of BC. Available on-line at: http://www.cscd.gov.bc.ca/Lgd/infra/statistics_index.htm.

Ministry of Jobs, Tourism, and Skills Training. 2015. BC Major Projects Inventory. Victoria: Labour Market and Information Division, Ministry of Jobs, Tourism, and Skills Training.

Morris, R. 2012. Scoping study: impact of fly-in fly-out/drive-in drive-out work practices on local government. Australian Centre of Excellence for Local Government, University of Technology, Sydney.

Northwest Regional Workforce Table. 2012. *Regional Skills Training Plan: 2013-2018*. Terrace: Northwest Regional Workforce Table. Available on-line at: https://www.nwcc.bc.ca/sites/default/files/content-files/miscellaneous/NW%20Regional%20Skills%20Training%20Plan%202013-2018 2.pdf.

Northern Health. 2012. *Understanding the state of industrial camps in northern BC: a background paper*. Draft. Prince George, BC: Northern Health Authority.

Orr, C. 2014, Nov. 12. Rio Tinto Alcan hands 156 acres of waterfront to Kitimat. Northern Sentinel. Available on-line at: http://www.northernsentinel.com/ourtown/282470631.html.

Petroleum Human Resources Council of Canada. 2013. Labor demand outlook for BC's natural gas industry: Petroleum labor market information. Produced on behalf of the BC Natural Gas Workforce Strategy Committee. Retrieved from http://irrealty.ca/wp-content/uploads/2013/04/2013-02-

21 final bc natural gas labour demand to 2020 report.pdf.

Province of Alberta. 2006. *Investing in our future: responding to the rapid growth of oil sands development*. Final Report.

Province of British Columbia. 2016. A Guide for Landlords & Tenants in British Columbia. Victoria, BC: Residential Tenancy Branch, Province of BC.

Revenue Canada. 2014. Charities Listings: 2011-2014. Ottawa: Revenue Canada.

Rio Tinto Alcan. 2015. Kitimat Public Advisory Committee summary on Rio Tinto Alcan's P2 Amendment Permit Application. Available online at:

https://a100.gov.bc.ca/appsdata/epic/documents/p414/1447370809697 Ljp0WFYpGwFhrmJFy JFND54ByY44NJnB5vvVHlfdkhhNnPjQTT6G!-14057127!1447368926799.pdf.

Rio Tinto Alcan. 2013. Sustainable Development Report. Available on-line at: http://www.riotintobcoperations.com/wp-content/uploads/2014/10/RTA Primary Metal BC Operations PR-2013.pdf.

Rio Tinto Alcan. 2012. BC Operations Sustainable Development Report. Available on-line at: http://www.riotintobcoperations.com/wp-content/uploads/2014/06/RTA Primary Metal BC Operations PR-2012.pdf.

Rio Tinto Alcan. 2011a. Rio Tinto to invest US\$2.7 billion to complete the modernisation of the Kitimat smelter. Retrieved from

http://www.riotintoalcan.com/enG/media/media releases 2199.asp.

Rio Tinto Alcan. 2011b. Sustainable Development Report. Available on-line at: http://www.riotintobcoperations.com/wp-content/uploads/2014/06/RTA Primary Metal BC Operations PR-2011.pdf.

Rio Tinto Alcan. 2010. Performance Report. Available on-line at: http://www.riotintobcoperations.com/wp-content/uploads/2014/06/RTA Primary Metal BC Operations PR-2010.pdf.

Rio Tinto Alcan. 2009. Performance Report. Available on-line at: http://www.riotintobcoperations.com/wp-content/uploads/2014/06/RTA Primary Metal BC Operations PR-2009.pdf.

Rowland, R. 2014a, April 22. Kitimat Council votes 4 to 1 to oppose Enbridge Northern Gateway. Northwest Coast Energy News. Available on-line at:

http://nwcoastenergynews.com/2014/04/22/6174/kitimat-council-votes-4-1-oppose-enbridge-northern-gateway.

Rowland, R. 2014b, April 12. Kitimat residents vote 'no' in pipeline plebiscite. The Globe and Mail. Available on-line at: http://www.theglobeandmail.com/news/british-columbia/kitimat-residents-vote-in-northern-gateway-oil-pipeline-plebiscite/article17949815.

Statistics Canada. 2015. Air Carrier Traffic at Canadian Airports. Ottawa: Statistics Canada. Catalogue no. 51-203-X.

Stueck, W. 2014, June 22. Kitimat residents fight for airshed study after government refuses to release report. The Globe and Mail. Available on-line at:

http://www.theglobeandmail.com/news/british-columbia/kitimat-residents-fight-for-airshed-study-after-government-refuses-to-release-report/article19285632.

Torkington, A.M., Larkins, S., & Sen Gupta, T. 2011. The psychosocial impacts of fly-in fly-out and drive-in drive-out mining on mining employees: a qualitative study. *Australian Journal of Rural Health*, *19*(3), 135-141.