

Image courtesy of Northern Lights College

Artist's rendering of Dawson Creek Campus at Northern Lights College. The new trades training facility (left) connects to the Campus Centre and the Centre of Excellence for Clean Energy Technology. The \$34.4-million project is jointly funded by the federal government (\$14.57 million), the Province of B.C. (\$16.40 million), and the College (\$2.64 million), with the remaining balance from private donations.

BRITISH COLUMBIA MAJOR PROJECTS INVENTORY

FIRST QUARTER 2018



Ministry of Advanced Education, Skills and Training

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British Columbia Major Projects Inventory First Quarter 2018

Major Projects Inventory as of March 31, 2018.

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Report prepared by Workforce Innovation and Division Responsible for Skills Training staff.

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About this Report

The objectives of this report are to analyze the updates to the MPI and to provide additional context on changes to economic conditions and construction activities. These snapshots of current economic activities are provided to help readers form expectations of the construction activities into the next quarter. This report was prepared with the most current data from economic indicators.

The MPI data set includes projects involving Indigenous people in capacities such as project owners, project partners or benefit agreements. The next edition of this report, covering the second quarter of 2018, will profile and analyze some of these projects.

Detailed project listings are available in a searchable Excel database: www.majorprojectsinventory.com

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The B.C. Major Projects Inventory (MPI), published quarterly, provides summary information on major projects in the Province of British Columbia. The MPI includes a listing of private and public sector construction projects in B.C. with an estimated capital cost of \$15 million (Cdn.) or greater (\$20 million or greater within the Lower Mainland–Vancouver area).

Approximately two-thirds of existing projects receive an update each quarter. New projects are added to the list every quarter. Projects on hold for longer than two years are removed from the publication. Completed projects are removed from the list in the following quarter.

Project identification	Project name, description, specific and regional location, geographic coordinates, developer, contact information, project type, and project category
Project status	 Proposed, under construction, completed, or on hold Proposed stages Start and completion dates (if available) Update activity on project status Environmental assessment stage
Project size	Estimated capital cost (if available)
Other project characteristics	Construction type, construction subtype, public sector projects, clean energy projects and/or green (i.e. LEED) building projects, Indigenous people's agreements, the number of construction jobs and operating jobs.

Information collected in the MPI includes:

While every effort is made to maintain a comprehensive project list that includes the most current publicly available information, it is important to note that projects are constantly added and re-evaluated by industry. Not all major projects are included in the MPI. Projects must be known to be included, and some project information is not published due to confidentiality requirements.

Sources of MPI Information

Information sources include print and electronic media, developers, architects, general contractors, and government agencies (provincial, regional, municipal) as well as occasional site visits. Projects that are under consideration or proposed to be funded by the provincial government may be listed where there is public information about such projects. The description may indicate the status of provincial funding applications if such information is publicly available.

Project Location

Projects are listed within the eight economic development regions: Vancouver Island/Coast, Mainland/Southwest (Vancouver area), Thompson-Okanagan, Kootenay, Cariboo, North Coast, Nechako, and Northeast. A map showing the location of the regions and main population centres is included in the regional sections of the MPI. Projects are also listed according to the nearest population centre, which could be an unincorporated centre or a local government (e.g., a municipality).

Estimated Cost

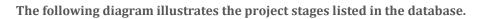
Cost estimates are general estimates from the information sources used and are not necessarily produced in a consistent manner. The estimated costs are revised when new information is available. All estimates are recorded in millions of dollars. All capital costs in this report are estimates and therefore subject to change. This is particularly applicable in the early stages of a project proposal. Some capital costs are not included because they were not available at press time or the developer or owner requested that no capital cost be shown.

Start and Finish Dates

Start and finish dates for proposed projects are based on estimates from the sources used, or in some cases, reasonable assumptions. These dates are revised as new information becomes available.

Project Status

Projects are listed by status: proposed, under construction, completed, or on hold. Projects that are on hold for longer than two years are normally removed from the publication (although retained in our database). Cancelled projects are noted in the project description as "cancelled" and noted in a new field - Update Activity is identified as "cancelled-removing next issue". Cancelled projects and completed projects in this quarter will be removed from the next issue of the MPI. Changes to project status are based on public information releases and/or information supplied by project proponents. Cancelled projects are not included in reported totals in this report.





Technically, projects can have their status moved to "cancelled" at any stage except for construction completed.

Proposed

Any major projects in the public realm with an intention to proceed on the part of a credible proponent are added to the database. Often major projects with an official news release or funding confirmed are added to the inventory. Projects released on the official websites may be included but are subject to approval for inclusion by the proponent. A review process for public projects is obtained by the project manager where the respective ministry can decide to include or remove the proposed projects based on feasibility or funding available for the project.

Proposed projects usually go through the four stages prior to the construction.

At the **Preliminary/Feasibility** stage, the feasibility of the project has been reviewed and the project's design and planning are in process.

Consultation/Approvals stage includes approvals for the zoning, environmental assessment, Indigenous people and other public open house processes.

A proposed project will enter **Permitting** stage after obtaining the required approvals (i.e. environmental assessment certificate, if indicated). This stage includes development and building permits, mines, water licenses and other additional information required before moving into pre-construction stage.

Tender/Pre-construction stage includes construction tenders and building site preparation such as preloading, demolition, and excavation. The pre-construction work such as excavation or site work may begin in preparation for the construction permit.

Sustainable Building Design

Information on sustainable building design is identified as well as construction projects that are registered and certified under a recognized green building rating system (e.g., Leadership in Energy and Environmental Design (LEED®), Green Globes). LEED buildings provide an environmentally responsible standard for energy efficiency in the home and workplace. This designation has been added to the project description to promote awareness of the benefits of green buildings.

Indigenous Affiliation

Information related to Indigenous people's involvement in projects is based on news releases and published project information that is publicly available. The information is consistent with the information maintained in the Indigenous Business and Investment Council Database (BCIBIC; <u>www.bcibic.ca</u>).

Project Category

Project Category lists the seven industrial categories:

- a.) manufacturing;
- b.) mining, oil and gas extraction;
- c.) other services;
- d.) public services;
- e.) residential or commercial;
- f.) transportation and warehousing; and,
- g.) utilities (including sewage treatment).

Environmental Assessment Stage

The stages of environmental assessment for each project undergoing review under the *B.C. Environmental Assessment Act* are added to this issue.

Latitude and Longitude

Fields Latitude and longitude in the format of Degrees minutes seconds (DMS).

Telephone

Contact number of the project developer or representative.

Update Activity

Readers can search for and select projects based on the following seven criteria:

- a.) new proposed projects;
- b.) project started construction;
- c.) cancelled-removing next issue;
- d.) project added-under construction;
- e.) project completed-removing next issue;
- f.) project placed on hold; and,
- g.) project removed from hold.

1. B.C. Major Projects Highlights – Q1 2018

The first quarter of 2018 issue of the B.C. Major Projects Inventory lists 28 new proposed projects over \$15 million (M) with available capital cost estimates totalling approximately \$2.99 billion (B) if all the projects proceed. The potential capital investment for new projects has increased compared to \$1.67 B in the fourth quarter of 2017.

The estimated capital cost of all 956 major projects in the first quarter of 2018, totalling \$402.08 B, has been relatively unchanged from \$402.55 B in the fourth quarter of 2017. Note that the total capital cost is the combined estimated value of projects identified as proposed, construction started, completed, and on hold excluding cancelled projects.

There are 22 projects that started construction in B.C., representing an estimated capital cost of \$1.83 B, down from the \$2.22 B reported in the fourth quarter of 2017. Twenty-four projects completed construction in the first quarter, with an estimated capital cost of \$1.66 B compared to \$4.13 B in the fourth quarter of 2017. There are 238 projects in the first quarter of 2018 with public funding contributions having an estimated available capital cost of \$44.32 B. Funding for these projects is allocated through municipal, provincial and/or federal levels of government, crown corporations, public institutions, and may include private partnerships. Future editions of the MPI will track provincial government projects separate from other publicly funded projects.

The capital cost of all major projects currently under construction in B.C. is estimated at approximately \$75.19 B, up slightly from the \$74.88 B reported in the fourth quarter of 2017. Lowrise Condominium (\$20 M) in Richmond was cancelled in this quarter. The available capital cost of proposed projects is estimated at \$294.27 B, up slightly from \$293.57 B in the previous quarter. Many major project proposals listed are in very preliminary stages and are not approved for construction; therefore, capital cost estimates should be viewed with caution. Approximately \$30.96 B of projects are judged to be 'on hold' for the time being, an increase from the previous quarter value of \$29.97 B.

All capital costs in this report are estimates and therefore subject to change. Some capital costs are not included because they were not available at press time or the developer or owner requested that no capital cost be shown.

Figure 1 B.C. MPI Highlights

	Number of total major projects
\$402.1 B	Value of all projects
511	Number of total proposed projects
\$294.3 B	Value of proposed projects
	Number of projects under construction
\$75.2 B	Value of projects under construction
24	Number of projects completed
\$1.7 B	Value of projects completed
	Number of new proposed projects
\$3.0 B	Value of newly proposed projects

2. B.C. Major Projects Inventory – Q1 2018

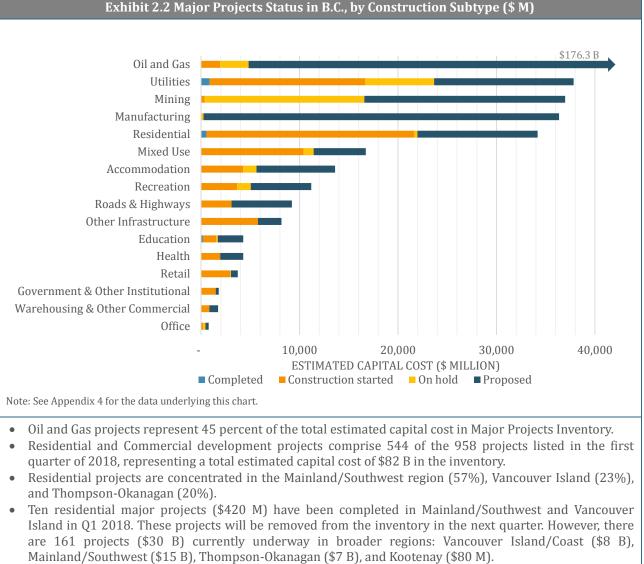
By Project Category, Construction Type or Subtype

Project Category	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Chang from th previou yea
Mining, Oil & Gas Extraction	201,550	201,194	185,933	174,900	172,900	-1.1%	-14.2
Residential/Commercial	68,847	68,689	68,937	67,995	70,550	3.8%	2.59
Transportation & Warehousing	66,783	67,270	63,145	62,844	62,876	0.1%	-5.99
Manufacturing	36,425	36,365	36,365	36,365	36,365	0.0%	-0.2
Utilities	37,522	36,322	36,134	38,300	37,839	-1.2%	0.8
Public Services	9,199	10,492	10,333	10,287	10,334	0.5%	12.3
Other Services	11,911	11,826	11,804	11,859	11,213	-5.4%	-5.9
Grand Total	432,237	432,158	412,651	402,550	402,077	-0.1%	-7.0
	432,237	432,158	412,651	402,550	402,077	-0.1%	-7.0
0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000	Q1 2010 Q3 2010	Q1 2011 Q3 2011 Q1 2012	2012	Q3 2013 Q1 2014 03 2014	Q1 2015 Q3 2015	-0.1%	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0102 0 03 2010	Q1 2011 Q3 2011 Q1 2012	<u>Q3 2012</u> <u>Q1 2013</u>	13 2014 13 2014	Q1 2015 Q3 2015	<u>Q1 2016</u> <u>Q3 2016</u> 01 2017	03 2017

Utilities (incl sewage treatment)

Note: chart excludes mining oil & gas extraction and other services projects

- The total estimated capital cost of major projects in B.C decreased in the first quarter of 2018 (Q1), totalling \$402 B, representing a 0.1 percent decrease over the previous quarter and a 7.0 percent decrease compared to one year earlier
- In Q1 2018, the project value increased in all project categories, except in Utilities (-1.2%), Other Services (-5.4%), and Mining, Oil & Gas Extraction (-1.1%).



- Utility projects continue to be a significant driver for the province. The total cost of utilities projects amounts to \$37.8 B while the total cost of projects which are currently underway is \$15.8 B.
- There are 57 mining projects listed in the MPI with a total estimated value of \$37 B.
- The top three components share of new projects added to the inventory in Q1 2018 are Primarily Accommodation (67%), Residential Single Use (27%), Education (4%), and Commercial/Residential Mixed Use (2%).

Exhibit 2.3 Estimated Cost of Regional Major Projects, by Construction Type and Subtype (\$ M)

Construction Type & Subtype	Vancouver Island/ Coast	Mainland/ Southwest	Thompson -Okanagan	Kootenay	Cariboo	North Coast	Nechako	Northeast	Total
Residential Subtotal:	11,059	27,010	9,504	80	-	-	100	-	47,753
Primarily residential	8,159	17,782	8,054	80	-	-	100	-	34,175
Residential Mixed use	2,900	9,228	1,450	-	-	-	-	-	13,578
Commercial Subtotal:	4,196	17,520	5,654	4,902	1,322	46	-	540	34,180
Commercial Mixed use	462	2,690	-	-	-	-	-	-	3,152
Accommodation	2,300	4,766	3,299	2,302	940	-	-	-	13,607
Recreation	211	6,156	2,210	2,600	-	16	-	-	11,193
Retail	923	2,196	115	-	-	-	-	500	3,734
Office	260	492	15	-	-	-	-	-	767
Warehousing	-	190	-	-	-	-	-	-	190
Other Commercial	40	1,030	15	-	382	30	-	40	1,537
Industrial Subtotal:	32,130	2,335	1,864	3,146	7,231	181,702	6,296	19,850	254,554
Mining	130	160	1,834	2,936	2,646	18,807	6,296	4,171	36,980
Oil & Gas	32,000	2,125	-	-	4,570	130,835	-	11,679	181,209
Manufacturing - Wood Products	-	-	30	-	-	60	-	-	90
Manufacturing - Petrochemical	-	-	-	-	-	32,000	-	4,000	36,000
Other Manufacturing	-	50	-	210	15	-	-	-	275
Institutional & Government Subtotal:	3,277	5,161	1,370	39	63	383	-	61	10,354
Education	1,799	2,100	220	22	63	18	-	61	4,283
Health	-	2,789	1,110	17	-	365	-	-	4,281
Government buildings	1,458	272	40	-	-	-	-	-	1,770
Other Institutional & Government	20	-	-	-	-	-	-	-	20
Infrastructure Subtotal:	9,929	17,985	2,821	876	1,589	4,973	551	16,512	55,236
Utilities	7,726	5,412	1,260	876	1,070	4,517	506	16,472	37,839
Roads & Highways	371	6,735	1,411	-	519	106	45	40	9,227
Other Transportation	1,815	5,838	150	-	-	350	-	-	8,153
Other Infrastructure	17	-	-	-	-	-	-	-	17
Grand Total	60,591	70,011	21,213	9,043	10,205	187,104	6,947	36,963	402,077

By Project Status

Exhibit 2.4 Es	timated Cos	t Trends ii	n B.C. Majo	or Projects,	, by Projec	t Status (\$	M)
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year
Proposed	324,973	307,495	304,694	293,574	294,266	0.2%	-9.4%
Construction started	75,282	74,957	74,729	74,877	75,185	0.4%	-0.1%
Completed	1,341	3,357	2,737	4,133	1,664	-59.7%	24.1%
On hold	30,641	46,349	30,491	29,966	30,962	3.3%	1.0%
Total	432,237	432,158	412,651	402,550	402,077	-0.1%	-7.0%

The value of completed projects fell 60 percent to \$1.7 B in Q1 2018 over the previous quarter. Notable projects completed were Ruskin Dam Safety and Powerhouse Upgrade (\$748 M), Victoria Hill Community (\$100 M), and Pinnacle Living at Capstan Village (\$80 M).

	Estimated Capital Cost (\$M)	Percentage of Total	Number of Projects	Average Project Value (\$ M)	Average Years in Inventory
Proposed	294,266	73%	511	658	4.8
Preliminary/Feasibility	74,862	19%	116	851	4.0
Consultation/Approvals	156,606	39%	225	775	5.8
Permitting	10,136	3%	40	274	3.3
Tender/Preconstruction	6,839	2%	88	84	2.6
Stage Unknown	45,823	11%	42	1,175	7.6
On Hold	30,962	8%	68	476	10.9
Construction Started	75,185	19%	353	218	6.2
Completed	1,664	0%	24	72	6.3
Total	402,077	100%	956	457	5.8

Note: Average project value is the average of those projects for which there is a cost estimate. An average year in inventory is the average time span between the projects as first recorded in the MPI and the current period.

Exhibit 2.6 Estimated Cost of Regional Major Projects, by Project Status (\$ M)									
Development Region	Proposed	Construction started	Completed	On Hold		Total change from the previous quarter	Total change from the previous year		
Vancouver Island/Coast	45,578	12,571	144	2,298	60,591	3.3%	2.0%		
Mainland/ Southwest	37,070	30,509	1,424	1,008	70,011	0.4%	0.7%		
Thompson- Okanagan	5,574	13,892	70	1,677	21,213	-1.0%	-0.5%		
Kootenay	2,399	3,634	0	3,010	9,043	-1.0%	-1.0%		
Cariboo	8,390	515	0	1,300	10,205	-0.2%	-2.7%		
North Coast	172,660	647	0	13,797	187,104	0.0%	-14.1%		
Nechako	4,361	251	0	2,335	6,947	-3.3%	-3.3%		
Northeast	18,234	13,166	26	5,537	36,963	-5.5%	-1.0%		
Total	294,266	75,185	1,664	30,962	402,077	-0.1%	-7.0%		

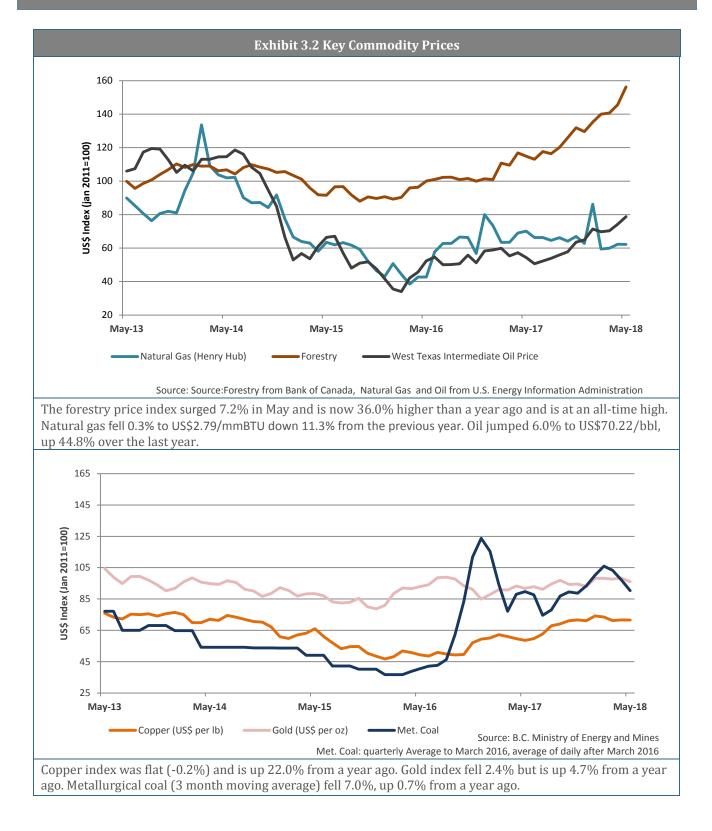
Exhibit 2.7 Estimated Cost Trends in B.C. Major Projects (\$ M) 500,000 450,000 400,000 350,000 300,000 250,000 200,000 150,000 100,000 Proposed 50,000 0 Q1 2008 Q2 2008 Q3 2008 Q1 2009 Q1 2009 Q2 2009 Q2 2009 Q1 2010 Q2 2010 Q2 2011 Q2 2011 Q1 2011 Q1 2011 Q2 2011 Q2 2013 Q1 2013 Q1 2013 Q1 2013 Q1 2014 Q1 2014 Q1 2014 Q1 2014 Q1 2015 Q2 2015 Q1 200 Construction Started Construction Completed Proposed on Hold

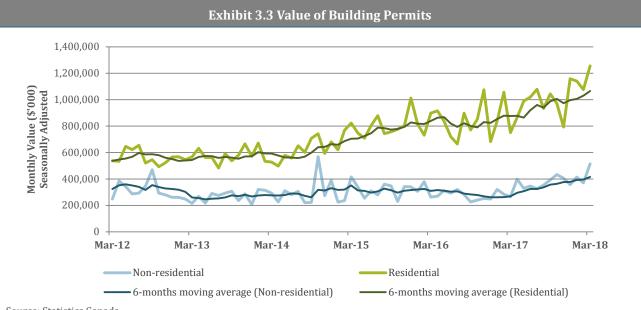
3. B.C. Economy

	Exhibit 3.1 E	conomic Ac	ctivity		
	2018f	2019	9 20)20	2021 2022
Real GDP	+2.3 %	+2.0 %	۶ 42.0)% +2	2.0 % +2.0%
urce: B.C. Budget and Fiscal Plan 2018/19 – 2	2020/21				
	Most Recent Period	Amount	Change from previous month	Change from previous year	Data Type
Retail trade (\$ M)	Mar-18	7,182	+0.6%	+5.1%	seasonally adjusted
Manufacturing Sales (\$ M)	Mar-18	4,550	+4.0%	+10.5%	seasonally adjusted
Residential - building permits (\$ M)	Mar-18	1,255	+16.7%	+67.2%	seasonally adjusted
Residential - housing starts (units)	Apr-18	38,750	-16.7%	+10.8%	seasonally adjusted at annual rates
Non-Residential building permits (\$ M)	Mar-18	514	+38.9%	+94.0%	seasonally adjusted
Exports - all merchandise (\$ M)	Mar-18	4,029	+22.6%	-0.5%	seasonally adjusted
	F	Prices			
B.C. Consumer price index (2002=100)	Feb-18	127	+0.7%	+2.8%	
Exchange rate	May-18	US \$0.77	-1.1%	+5.7%	
Average 5-year residential mortgage rate	Mar-18	4.27%	+0.0 p.p.	+0.6 p.p.	
	Labo	ur Market			
Employment	Apr-18	2,482,400	+0.1%	+0.9%	seasonally adjusted
Unemployment rate	Apr-18	5.0%	+0.3 p.p.	-0.4 p.p.	seasonally adjusted
Participation rate	Apr-18	65.0%	+0.1 p.p.	-0.5 p.p.	seasonally adjusted
Average weekly earnings	Apr-18	984.30	+0.3%	+7.2%	seasonally adjusted

Source: Statistics Canada & Bank of Canada

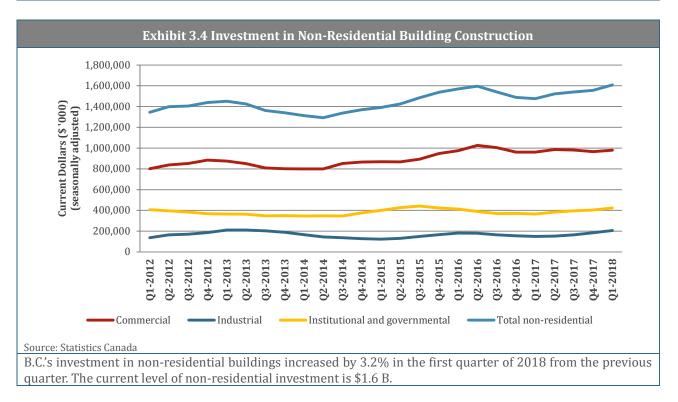
Note: p.p. is percentage point, used here to show the difference between two percentage rates.





Source: Statistics Canada

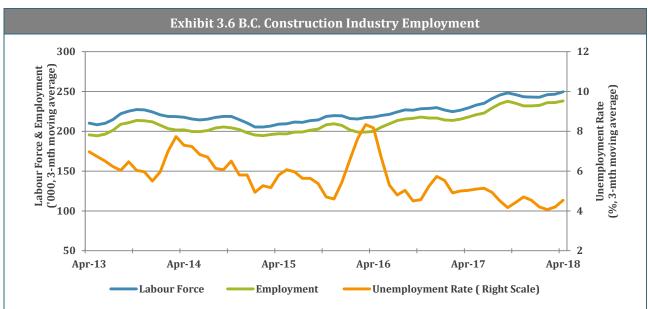
Building permit value is still rising at a firm pace in B.C., up 5.6% in March from the previous month to an average of \$1.59 B. This elevated level represents a 35.6% year-over-year increase. Residential building permit value is up 2.9% from the previous month (+31.1% from a year-ago) in March.





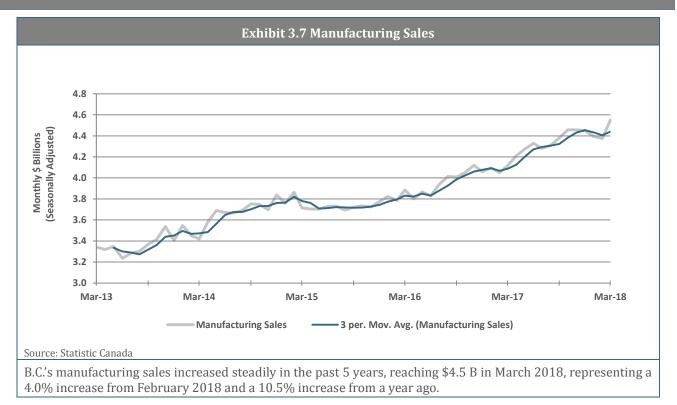
Note: All housing starts are the sum of the major centres with populations in excess of 10,000.

B.C.'s housing starts have been at elevated levels in the past two years. B.C.'s housing starts had a downtick in April to 42,155 units (annualized). The 6-month moving average of housing starts dropped 7% from the previous month and was up 12% from the same month in 2017.

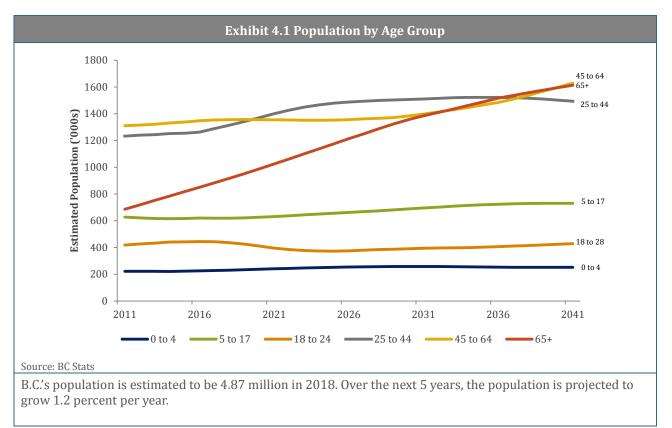


Source: Statistics Canada; North American Industry Classification System (NAICS 23), not seasonally adjusted

The B.C. labour market for the construction industry has been on a strong upswing in the last two years. Employment levels increased 9.3% from April 2017 to April 2018. The labour force increased by 8.8% during the same period. In April, employment month-over-month growth increased 0.9% and labour force increased 1.2%. The unemployment rate in B.C.'s construction industry increased 0.3 percentage points in April to 4.5%.



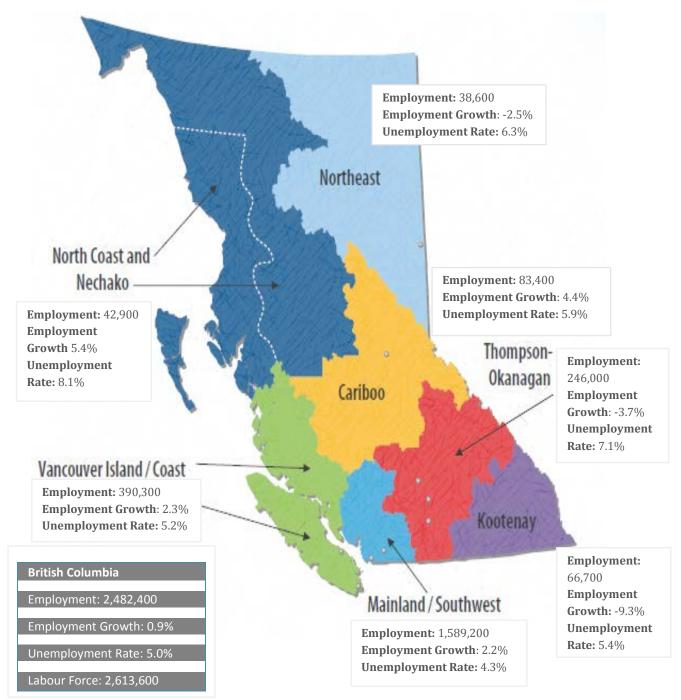
4. B.C. Demographics



REGIONAL SUMMARIES

5. Regional Summaries

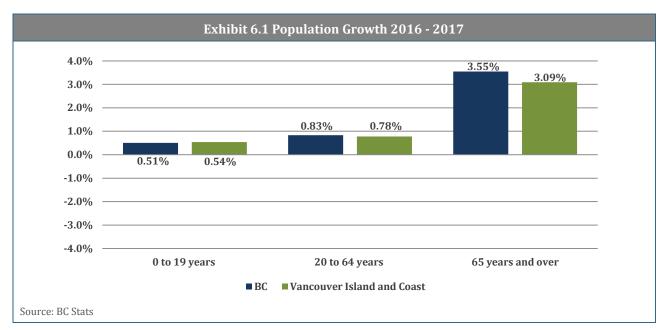
Regional Labour Market Statistics – April 2018

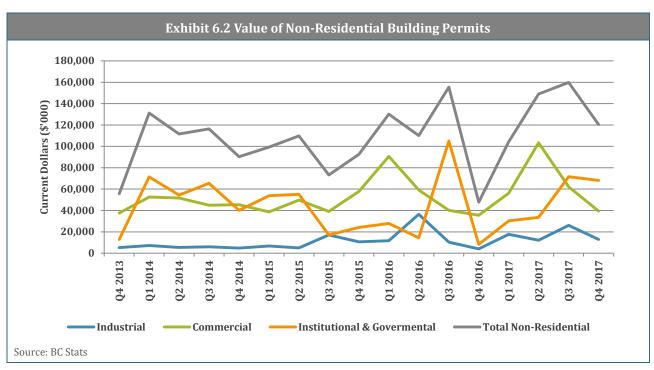


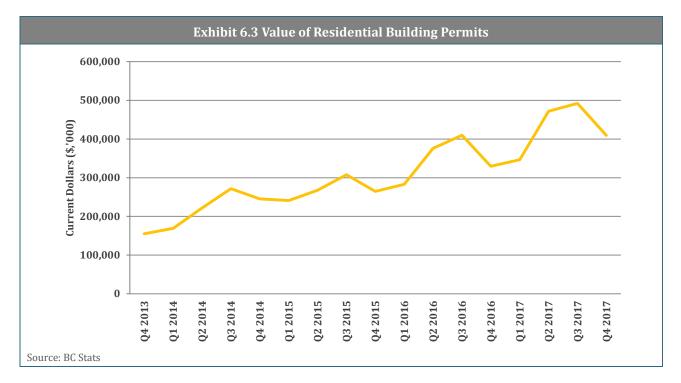
Note: Employment growth is over the previous 12 months. Data for B.C. at the provincial level are seasonally adjusted. Data for the regions are not seasonally adjusted and are 3-month moving averages. This means that the data at the provincial level are not directly comparable to the regional data, but the data for each region are directly comparable with the other regions. Source: Statistics Canada

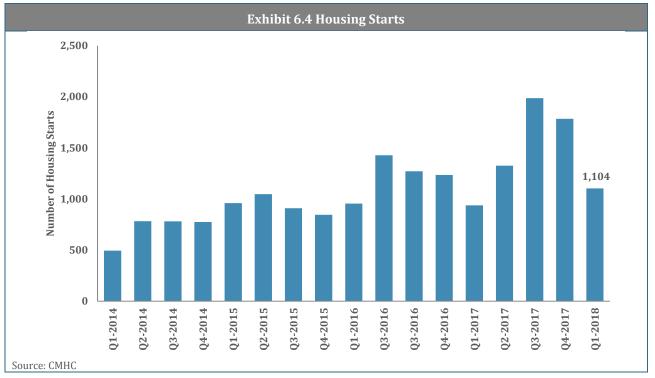
6. Vancouver Island/Coast Region

Key Economic Indicators

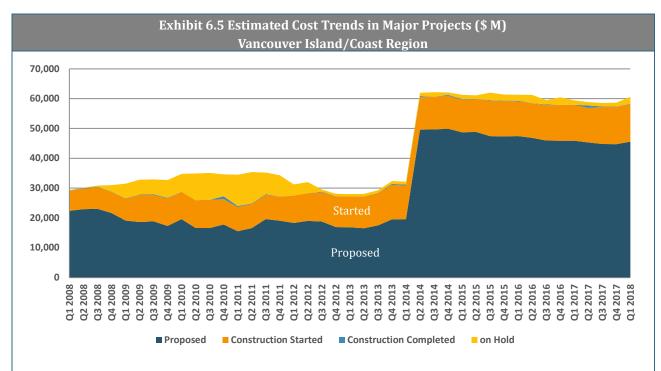








Trends in Major Projects



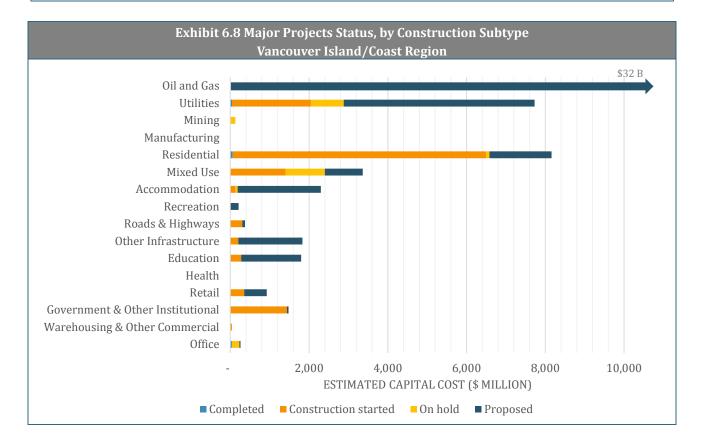
- In Q1 2018, the Vancouver Island/Coast region has a total of 156 major projects with a combined value of \$60.6 B, representing a 3.3 percent increase over the previous quarter and a 2 percent increase compared to one year earlier.
- There are 2 newly proposed projects added to the MPI this quarter: Union Bay Estates (\$2 B) and Royal Bay Secondary School expansion (\$25 M).
- Four major projects were completed in this quarter: Victoria District Office (\$44 M), Yello on Yates (\$40 M), Office complex (\$40 M), and Rental Apartment Complex (\$20 M).
- Marine Oil Spill Response Project Vancouver Island began construction in this quarter with total capital costs of \$150 M and is expected to be completed in the fourth quarter of 2018.
- Sandstone Towne Centre South Nanaimo Lands (\$1 B) has been placed on hold in this quarter.

Exhibit 6.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Vancouver Island/Coast Region										
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year			
Proposed	45,898	45,313	44,800	44,733	45,578	1.9%	-0.7%			
Construction started	11,985	11,580	12,431	12,522	12,571	0.4%	4.9%			
Completed	65	799	175	98	144	46.9%	121.5%			
On hold	1,471	1,148	1,148	1,298	2,298	77.0%	56.2%			
Total	59,419	58,840	58,554	58,651	60,591	3.3%	2.0%			

Exhibit 6.7 Summary of Major Projects (by Project Status)
Vancouver Island/Coast Region	

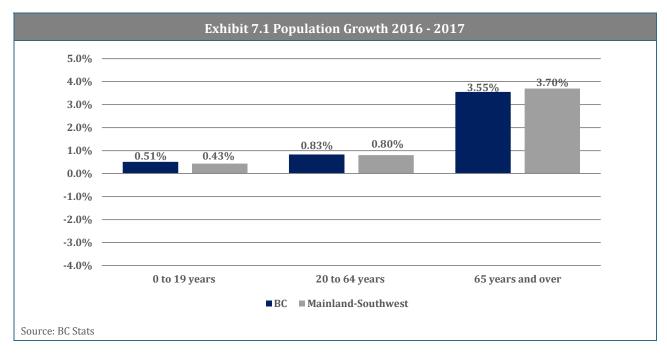
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory
Proposed	45,578	75%	76	651	5.6
Preliminary/Feasibility	32,074	70%	21	1,782	4.3
Consultation/Approvals	11,285	25%	36	342	6.1
Permitting	703	2%	7	100	3.4
Tender/Preconstruction	1,266	3%	8	158	5.9
Stage Unknown	250	1%	4	63	10.2
On Hold	2,298	4%	13	192	11.1
Construction Started	2,298	100%	13	192	11.1
Completed	12,571	21%	64	203	6.9
Total	60,591	100%	157	409	6.9

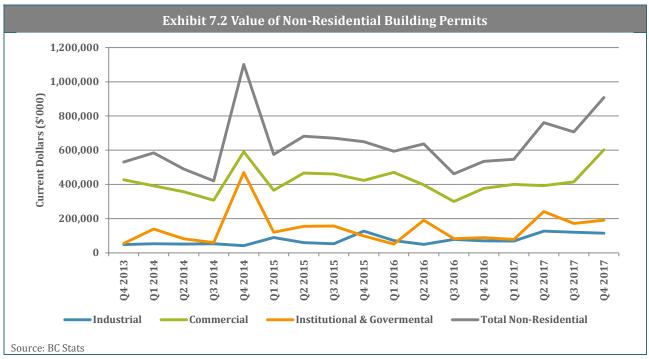
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

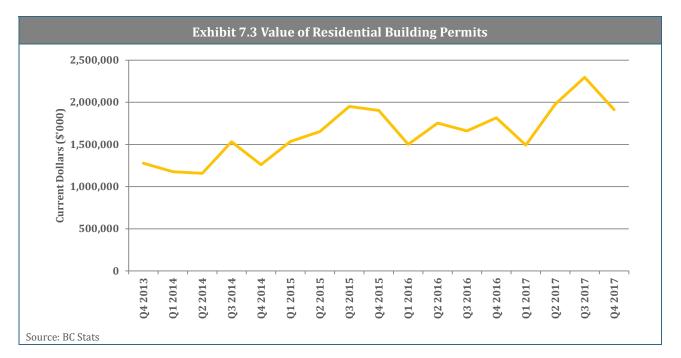


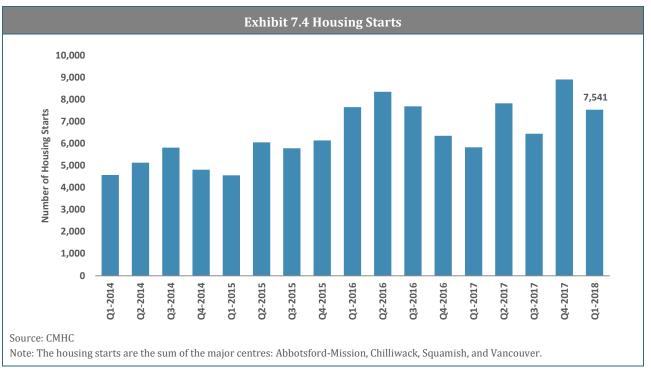
7. Mainland/Southwest Region

Key Economic Indicators

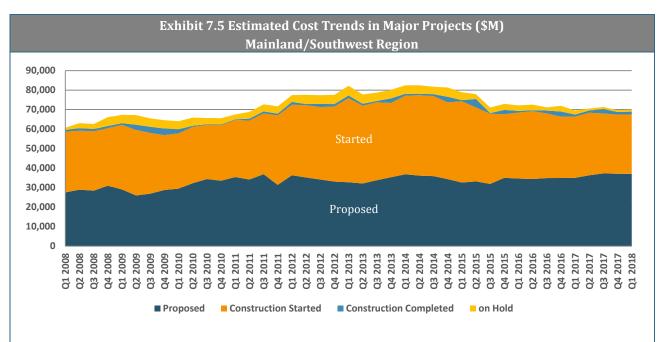








Trends in Major Projects



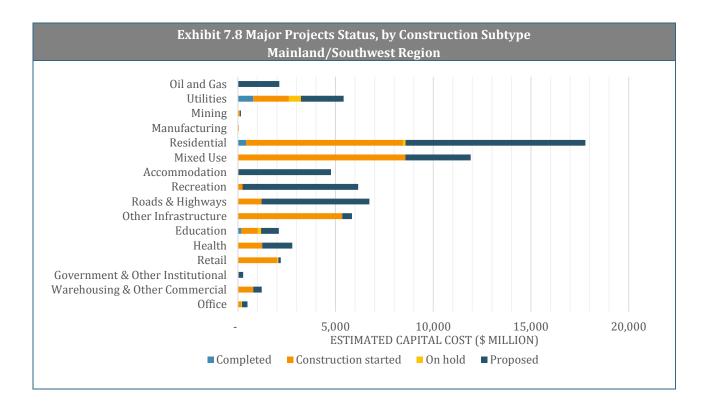
- In Q1 2018, the Mainland/Southwest region has a total of 507 major projects with a combined value of \$70 B, representing a 0.4 percent increase over the previous quarter and a 0.7 percent increase compared to one year earlier.
- There are 25 newly proposed projects added to the MPI this quarter. The top three largest projects are Seniors Housing Complex (\$106 M), Emery Village Mixed use Development (\$60 M), and Triomphe Condominium (\$54 M). See more new projects in Appendix 1.
- Seventeen major projects were completed in this quarter such as Ruskin Dam Safety and Powerhouse Upgrade (\$748 M), Victoria Hill Community (\$100 M), and Pinnacle Living at Capstan Village (\$80 M). See more completed projects in Appendix 3.
- Sixteen major projects began construction in this quarter with total capital costs of \$1.5 B. The top three largest projects are Lions Gate Sewage Treatment Plant (\$700 M), Concord Brentwood (\$200 M), and Delta iPort Cargo Centre (\$130 M). See more projects underway in Appendix 2.
- Shopping Centre (\$56 M) in Maple Ridge has been placed on hold in this quarter.

Exhibit 7.6 Estimated Cost Trends in Major Projects, by Project Status (\$ M) Mainland/Southwest Region									
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year		
Proposed	35,019	36,303	37,267	37,088	37,070	0.0%	5.9%		
Construction started	31,367	32,086	30,737	30,324	30,509	0.6%	-2.7%		
Completed	1,099	1,137	2,285	1,364	1,424	4.4%	29.6%		
On hold	2,056	1,007	992	952	1,008	5.9%	-51.0%		
Total	69,541	70,533	71,281	69,728	70,011	0.4%	0.7%		

Exhibit 7.7 Summary of Major Projects (by Project Status) Mainland/Southwest Region

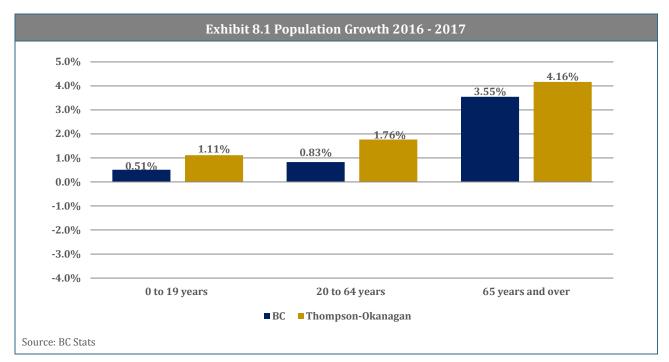
Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory
37,070	53%	285	150	3.7
5,863	16%	62	125	3.5
14,980	40%	110	154	4.6
2,569	7%	26	112	2.1
4,429	12%	67	73	1.8
9,229	25%	20	486	7.3
1,008	1%	12	92	9.4
30,509	44%	193	160	5.1
1,424	2%	17	84	6.3
70,011	100%	507	150	4.4
	Capital Cost (\$ million) 37,070 5,863 (14,980 2,569 (2,569 4,429 9,229 (1,008 30,509 (1,424	Capital Cost (\$ million) Percentage of Total 37,070 53% 5,863 16% 14,980 40% 2,569 7% 4,429 12% 9,229 25% 1,008 1% 30,509 44%	Capital Cost (\$ million) Percentage of Total Number of Projects 37,070 53% 285 5,863 16% 62 14,980 40% 110 2,569 7% 26 4,429 12% 67 9,229 25% 20 1,008 1% 193 1,424 2% 17	Capital Cost (\$ million) Percentage of Total Number of Projects Average Project Value (\$ million) 37,070 53% 285 150 5,863 16% 62 125 14,980 40% 110 154 2,569 7% 26 112 4,429 12% 67 73 9,229 25% 20 486 1,008 1% 12 92 30,509 44% 193 160

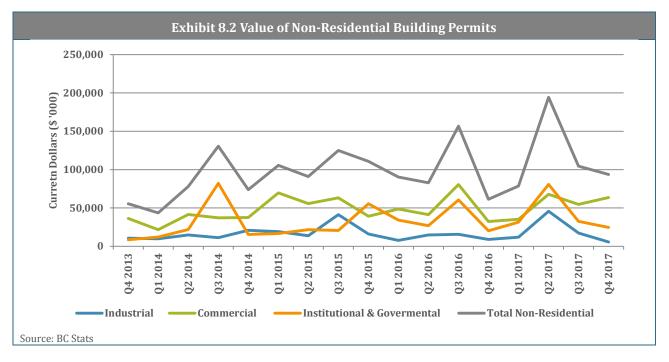
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

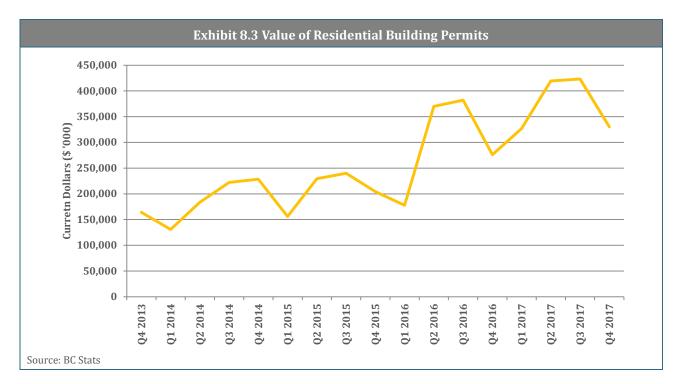


8. Thompson - Okanagan Region

Key Economic Indicators

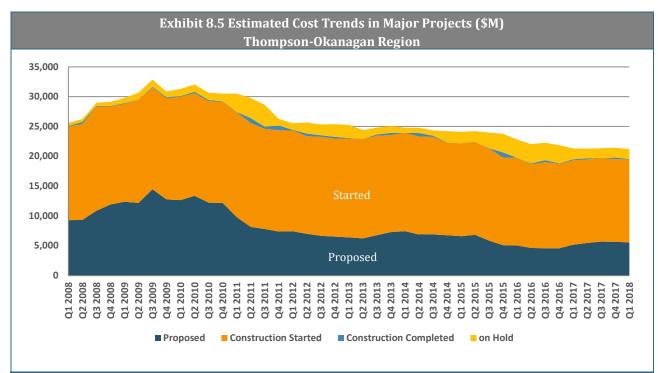








Trends in Major Projects



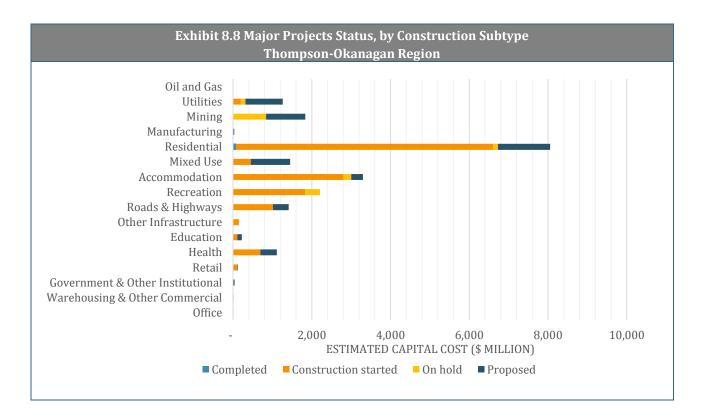
- In Q1 2018, the Thompson-Okanagan region has a total of 107 major projects with a combined value of \$21.2 B, representing a 1 percent decrease over the previous quarter and a 0.5 percent decrease compared to one year earlier.
- Canyon Falls Middle (\$38 M), Ella Condominium Highrise (\$30 M), and Highway 1 Donald to Forde Station Road (\$19 M) started construction this quarter.
- Sarsons Lowrise Condominiums (\$70 M) has been completed in this quarter.
- Condominium Development (\$40 M) in Kelowna has been placed on hold in this quarter.

Exhibit 8.6 Estimated Cost Trends in Major Projects, by Project Status (\$ M) Thompson-Okanagan Region								
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year	
Proposed	5,170	5,471	5,703	5,653	5,574	-1.4%	7.8%	
Construction started	14,154	13,997	14,038	13,872	13,892	0.1%	-1.9%	
Completed	177	194	0	260	70	-73.1%	-60.5%	
On hold	1,812	1,622	1,622	1,637	1,677	2.4%	-7.5%	
Total	21,313	21,284	21,363	21,422	21,213	-1.0%	-0.5%	

Exhibit 8.7 Summary of Major Projects (by Project Status) Thompson-Okanagan Region

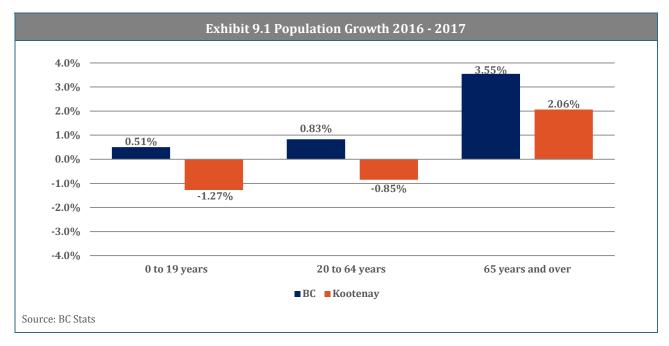
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory
Proposed	5,574	26%	43	143	6.3
Preliminary/Feasibility	343	6%	11	43	4.8
Consultation/Approvals	3,846	69%	19	202	7.4
Permitting	264	5%	3	88	6.3
Tender/Preconstruction	906	16%	6	151	4.9
Stage Unknown	215	4%	4	72	7.2
On Hold	1,677	8%	10	168	11.8
Construction Started	13,892	65%	53	267	8.6
Completed	70	0%	1	70	12.8
Total	21,213	100%	107	208	8.0

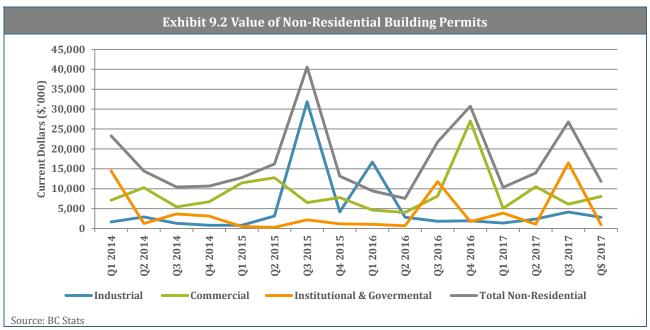
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

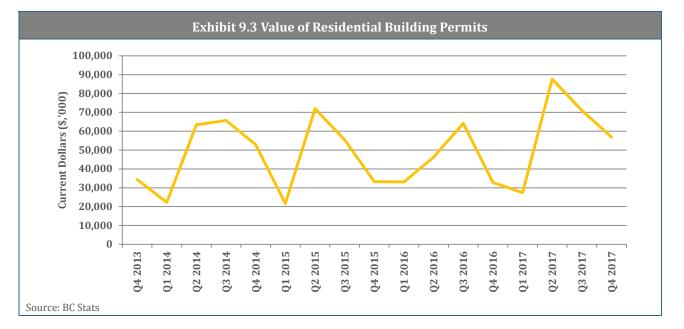


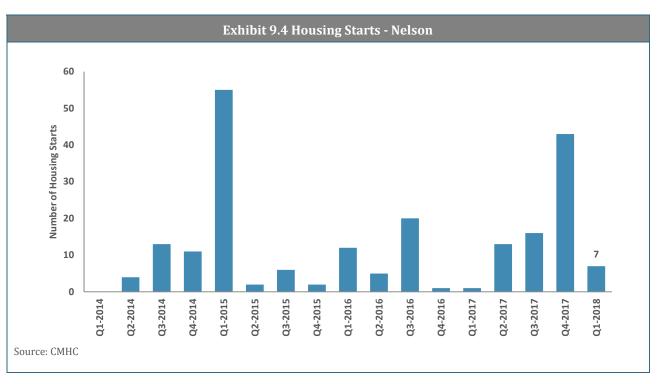
9. Kootenay Region

Key Economic Indicators

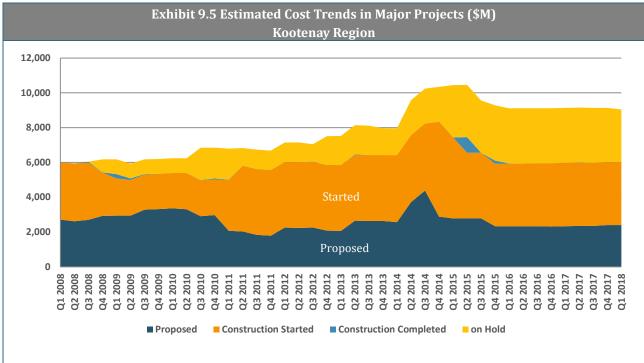








Trends in Major Projects



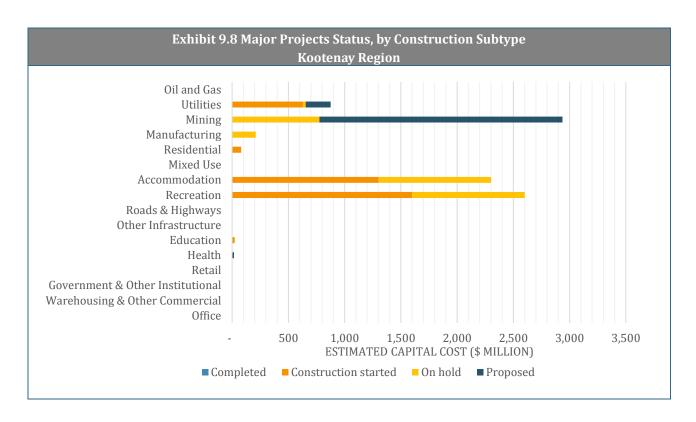
In Q1 2018, the Kootenay region had a total of 30 major projects with a combined value of \$9 B, representing a 1 percent decrease over the previous quarter and a 1 percent decrease compared to one year earlier. The estimated cost for Bingay main coal project has been revised from \$480 M to \$380 M in this quarter.

Exhibit 9.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Kootenay Region								
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year	
Proposed	2,332	2,349	2,349	2,399	2,399	0.0%	2.9%	
Construction started	3,643	3,627	3,626	3,626	3,634	0.2%	-0.2%	
Completed	0	16	0	0	0	-	-	
On hold	3,160	3,160	3,160	3,110	3,010	-3.2%	-4.7%	
Total	9,135	9,152	9,135	9,135	9,043	-1.0%	-1.0%	

Exhibit 9.7 Summary of Major Projects (by Project Status) Kootenav Region

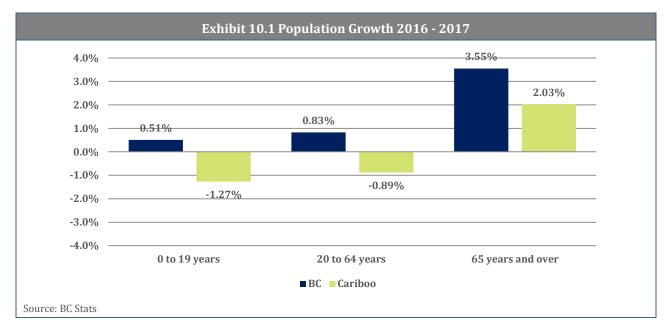
		nootenay neg			
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory
Proposed	2,399	27%	9	343	5.5
Preliminary/Feasibility	0	0%	2	0	2.6
Consultation/Approvals	2,332	97%	5	466	7.0
Permitting	0	0%	0	0	0.0
Tender/Preconstruction	17	1%	1	17	0.8
Stage Unknown	50	2%	1	50	8.3
On Hold	3,010	33%	6	502	11.4
Construction Started	3,634	40%	15	242	13.3
Completed	0	0%	0	0	0.0
Total	9,043	100%	30	323	10.6

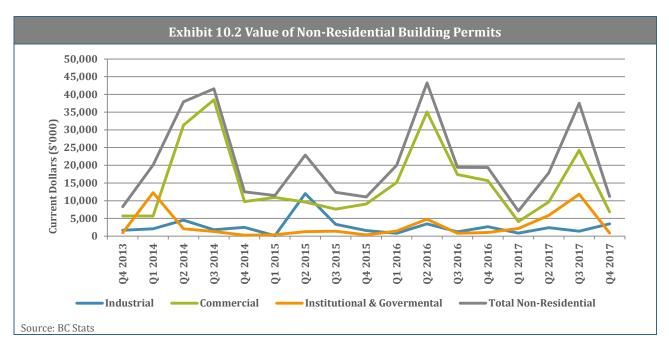
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

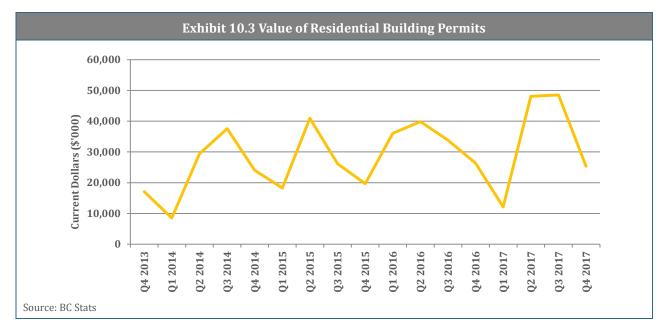


10. Cariboo Region

Key Economic Indicators

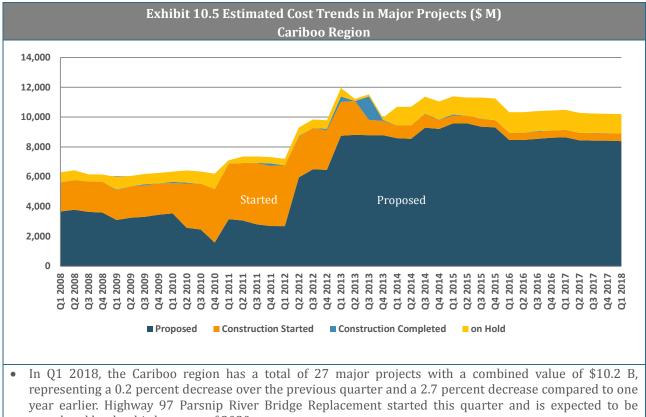








Trends in Major Projects

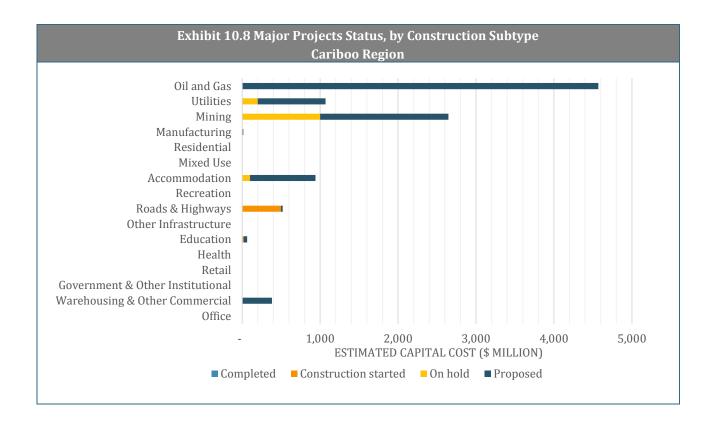


completed by the third quarter of 2020.

Exhibit 10.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Cariboo Region									
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year		
Proposed	8,646	8,446	8,422	8,422	8,390	-0.4%	-3.0%		
Construction started	496	496	500	479	515	7.5%	3.8%		
Completed	0	0	20	21	0	-100.0%	-		
On hold	1,343	1,343	1,300	1,300	1,300	0.0%	-3.2%		
Total	10,485	10,285	10,242	10,222	10,205	-0.2%	-2.7%		

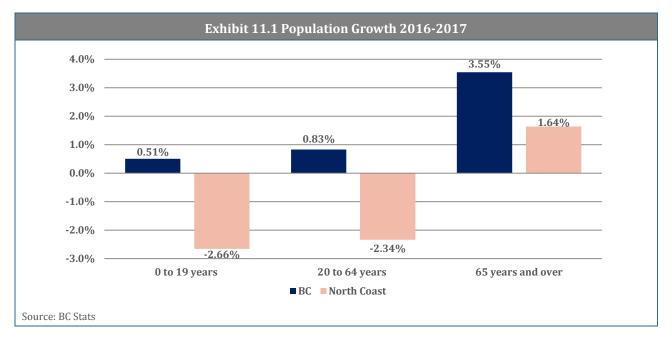
Exhibit 10.7 Summary of Major Projects (by Project Status) Cariboo Region									
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory				
Proposed	8,390	82%	20	466	7.1				
Preliminary/Feasibility	1,692	20%	6	338	4.9				
Consultation/Approvals	2,001	24%	7	334	7.0				
Permitting	0	0%	0	0	0.0				
Tender/Preconstruction	104	1%	2	52	10.1				
Stage Unknown	4,593	55%	5	919	8.5				
On Hold	1,300	13%	3	433	16.1				
Construction Started	515	5%	4	129	4.2				
Completed	0	0%	0	0	0.0				
Total	10,205	100%	27	408	7.6				

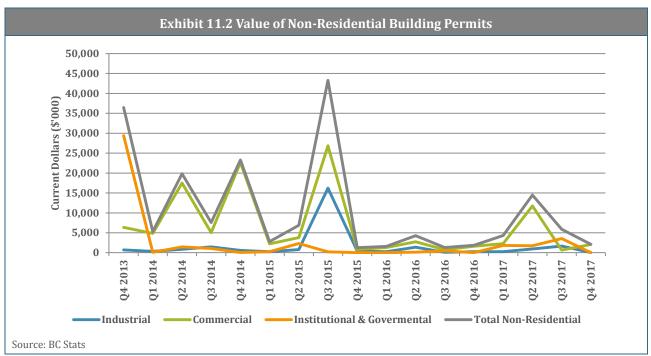
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

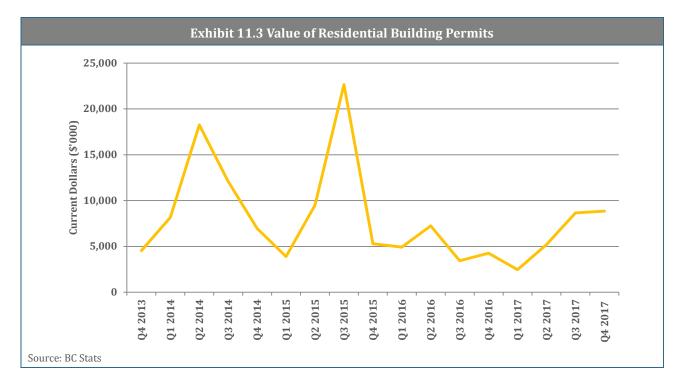


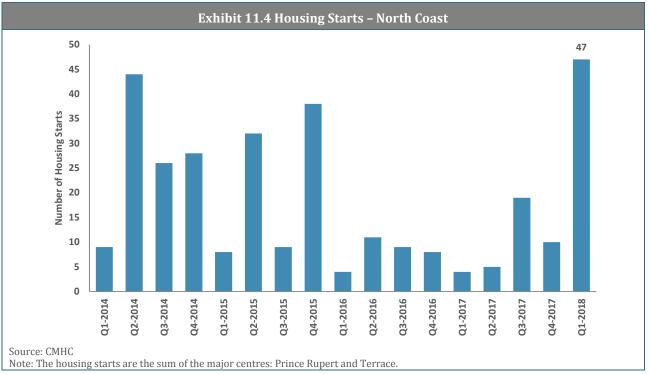
11. North Coast Region

Key Economic Indicators

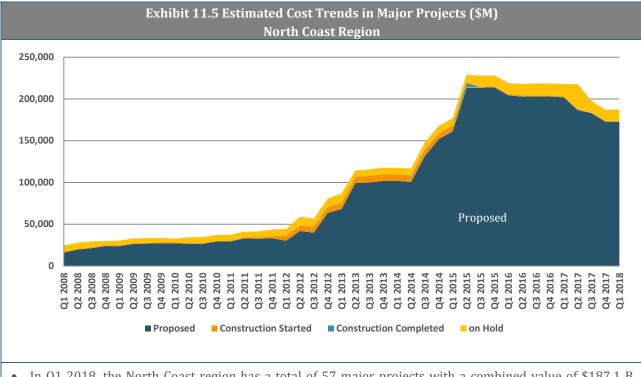








Trends in Major Projects



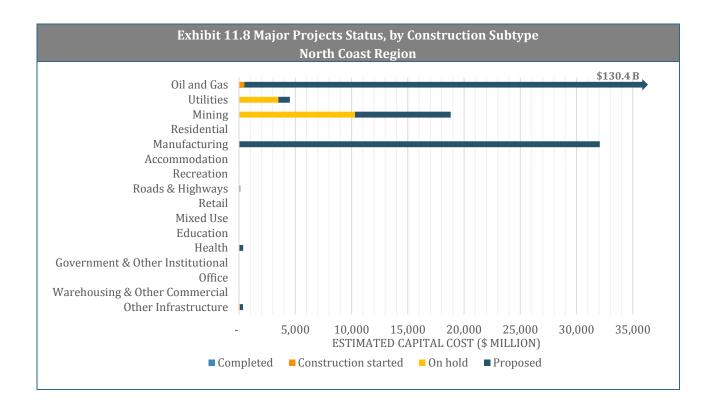
• In Q1 2018, the North Coast region has a total of 57 major projects with a combined value of \$187.1 B, representing a 14.1 percent drop compared to one year earlier.

• Highway 37 – Nass River Bridge Replacement (\$31 M) started construction this quarter and is expected to be completed the fourth quarter of 2019.

Exhibit 11.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) North Coast Region									
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year		
Proposed	201,926	186,374	182,874	172,684	172,660	0.0%	-14.5%		
Construction started	1,099	303	141	616	647	5.0%	-41.1%		
Completed	0	811	200	0	0	-			
On hold	14,797	30,197	14,397	13,797	13,797	0.0%	-6.8%		
Total	217,822	217,685	197,612	187,097	187,104	0.0%	-14.1%		

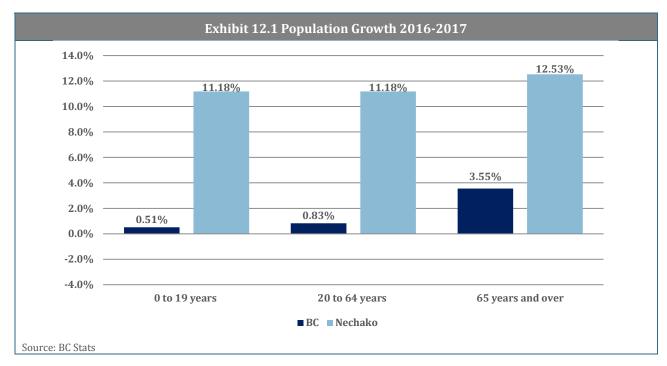
Exhibit 11.7 Summary of Major Projects (by Project Status) North Coast Region								
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory			
Proposed	172,660	92%	40	5,396	6.2			
Preliminary/Feasibility	33,965	20%	10	4,852	4.9			
Consultation/Approvals	106,012	61%	22	5,890	6.6			
Permitting	2,600	2%	2	1,300	13.0			
Tender/Preconstruction	37	0%	2	37	4.0			
Stage Unknown	30,046	17%	4	7,512	5.1			
On Hold	13,797	7%	11	1,380	11.1			
Construction Started	647	0%	6	108	2.6			
Completed	0	0%	0	0	0.0			
Total	187,104	100%	57	3,898	6.7			

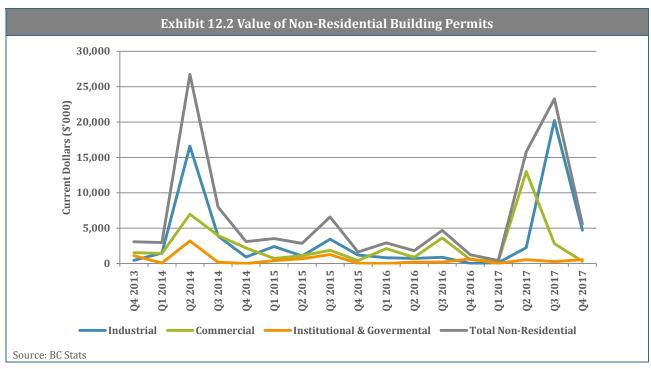
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

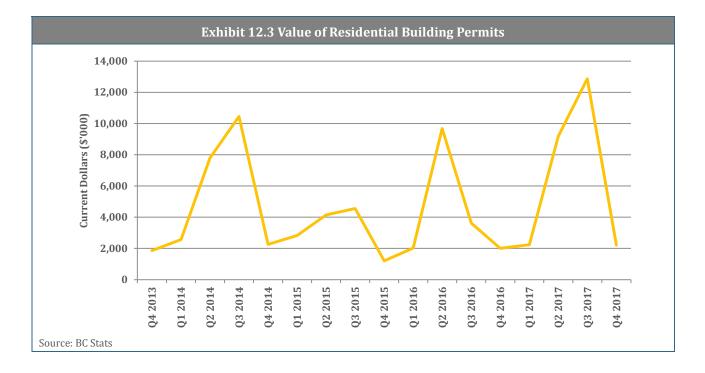


12. Nechako Region

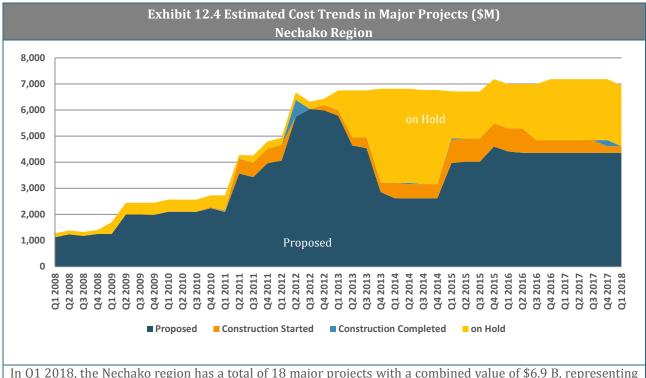
Key Economic Indicators







Trends in Major Projects

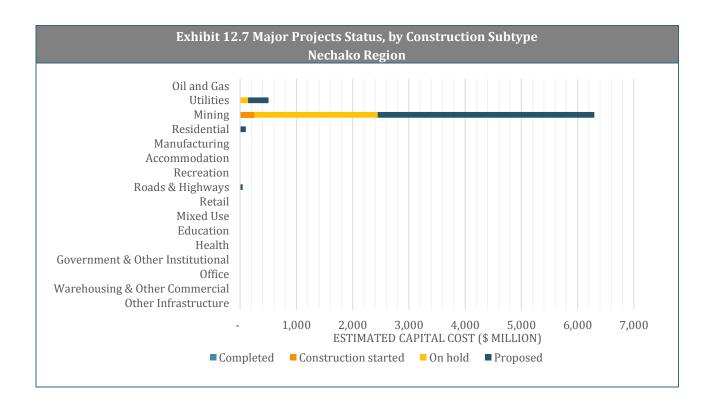


In Q1 2018, the Nechako region has a total of 18 major projects with a combined value of \$6.9 B, representing a 3.3 percent decrease from the previous quarter and a 3.3 percent decrease from the previous year.

Exhibit 12.5 Estimated Cost Trends in Major Projects, by Project Status (\$M) Nechako Region									
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year		
Proposed	4,361	4,361	4,361	4,361	4,361	0.0%	0.0%		
Construction started	486	486	486	251	251	0.0%	-48.4%		
Completed	0	0	0	235	0	-	-		
On hold	2,335	2,335	2,335	2,335	2,335	0.0%	0.0%		
Total	7,182	7,182	7,182	7,182	6,947	-3.3%	-3.3%		

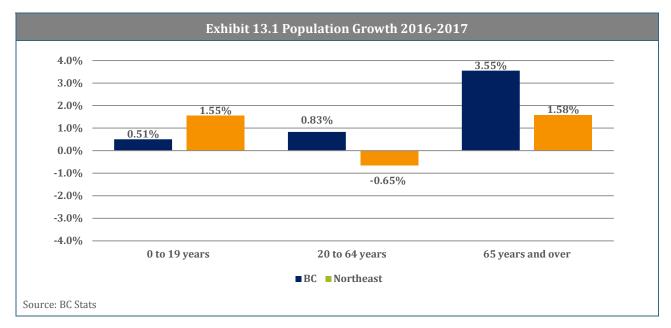
Exhibit 12.6 Summary of Major Projects (by Project Status) Nechako Region									
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory				
Proposed	4,361	63%	11	436	10.1				
Preliminary/Feasibility	875	20%	2	438	11.3				
Consultation/Approvals	2,186	50%	7	312	10.2				
Permitting	0	0%	0	0	0.0				
Tender/Preconstruction	0	0%	0	0	0.0				
Stage Unknown	1,300	30%	2	1,300	8.6				
On Hold	2,335	34%	5	467	12.4				
Construction Started	251	4%	2	126	4.6				
Completed	0	0%	0	0	0.0				
Total	6,947	100%	18	409	10.1				

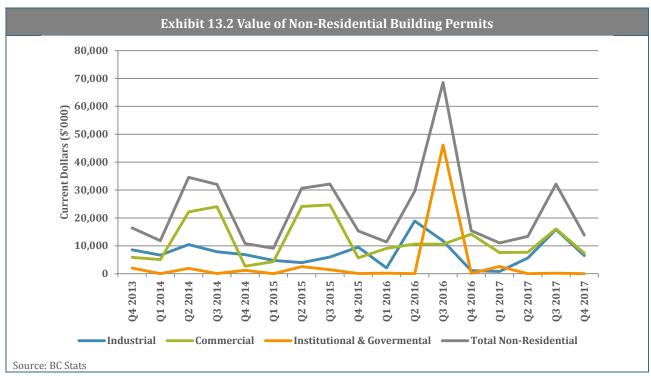
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

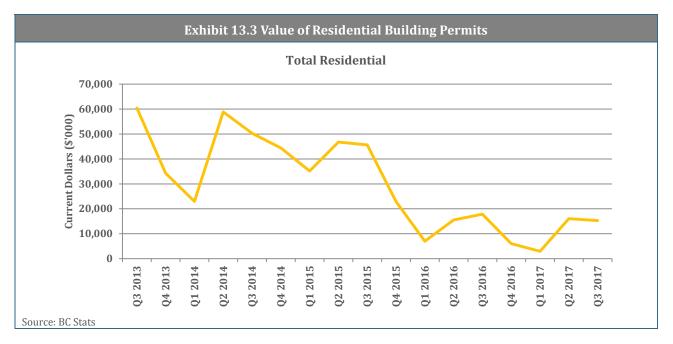


13. Northeast Region

Key Economic Indicators

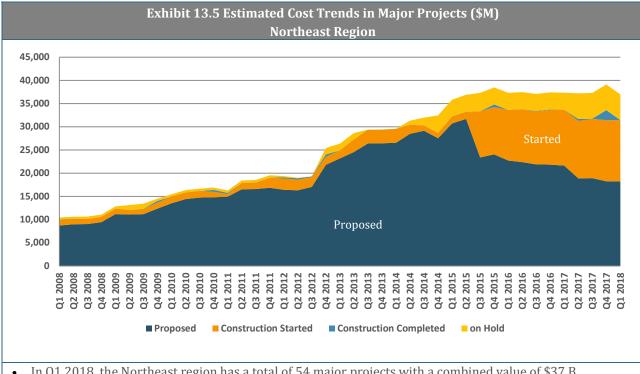








Trends in Major Projects



• In Q1 2018, the Northeast region has a total of 54 major projects with a combined value of \$37 B, representing a 5.5 percent decrease over the previous quarter and a 1 percent decrease compared to one year earlier.

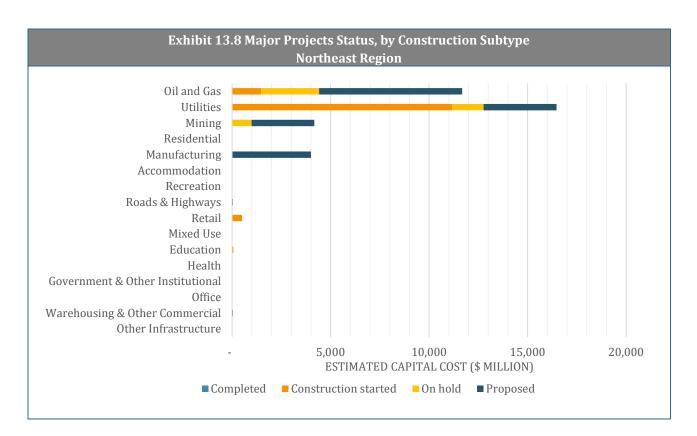
• Two projects have been completed in this quarter: Peace Region Load Shedding RAS (\$26 M) and Regional LNG Plant.

Exhibit 13.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Northeast Region									
Status	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Change from the previous quarter	Change from the previous year		
Proposed	21,621	18,878	18,918	18,234	18,234	0.0%	-15.7%		
Construction started	12,052	12,382	12,770	13,187	13,166	-0.2%	9.2%		
Completed	0	400	57	2,155	26	-98.8%	-		
On hold	3,667	5,537	5,537	5,537	5,537	0.0%	51.0%		
Total	37,340	37,197	37,282	39,113	36,963	-5.5%	-1.0%		

Exhibit 13.7 Summary of Major Projects (by Project Status) Northeast Region

Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Years in Inventory
18,234	49%	27	760	6.3
50	0%	2	50	1.2
13,964	77%	19	821	7.0
4,000	22%	2	2,000	5.5
80	0%	2	40	2.7
140	1%	2	70	9.1
5,537	15%	9	692	7.9
13,166	36%	16	1,013	3.3
26	0%	2	26	3.8
36,963	100%	54	804	5.6
	Capital Cost (\$ million) 18,234 50 13,964 4,000 4,000 140 5,537 13,166 26	Capital Cost (\$ million) Percentage of Total 18,234 49% 50 0% 13,964 77% 4,000 22% 80 0% 140 1% 5,537 15% 13,166 36%	Capital Cost (\$ million) Percentage of Total Number of Projects 18,234 49% 27 50 0% 2 13,964 77% 19 4,000 22% 2 80 0% 2 140 11% 2 13,166 36% 16 26 0% 2	Capital Cost (\$ million) Percentage of Total Number of Projects Average Project Value (\$ million) 18,234 49% 27 760 18,234 49% 27 760 50 0% 2 50 13,964 77% 19 821 4,000 22% 2 2,000 80 0% 2 40 140 1% 2 70 5,537 15% 9 692 13,166 36% 16 1,013

Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.



Appendices

	Municipality	Project	Estimate Cos (\$ million
1. Vancouver	Colwood	Royal Bay Secondary School Expansion	2
Island/Coast	Union Bay	Union Bay Estates	2,00
	Abbotsford	Upper Montrose Lowrise Condominium	2
	Burnaby	Triomphe Condominium	5
	Burnaby	Polaris at Metrotown	5
	Burnaby	Etoile Condominium	4
	Burnaby	Terraces at the Peak Condominium	2
	Coquitlam	Meridian Condominium	3
	Норе	Seniors Housing Complex	10
	New Westminster	Richard McBride Elementary School Replacement	2
	North Vancouver	Emery Village Mixed use Development	6
	North Vancouver	Connaught Condominium	2
	Surrey	Whalley District	5
2 Mainland (Couthweat	Surrey	The Holland Condominium	3
2. Mainland/Southwest	Surrey	Linea Condominium	2
	Surrey	Douglas Area Elementary	2
	Surrey	Maverick Lowrise Condominium	2
	Surrey	Surrey Hospital	
	Vancouver	Avalon 3 Condominium	5
	Vancouver	Fraser Commons at Marine	5
	Vancouver	Avenue One Condominiums	4
	Vancouver	The Butterfly Condominium	4
	Vancouver	The Pacific Condominiums	4
	Vancouver	1661 Davie Street Condominium	3
	Vancouver	Winston at South Oak Condominium	2
	Vancouver	1684 Alberni Condominium	2
	West Vancouver	Courtenay Condominiums	2
3. Thompson- Okanagan	Winfield	Lake Country Middle School	4

Region	Municipality	Project	Completion Date	Estimated Cost (\$ million)
l. Vancouver sland/Coast	Nanaimo	Marine Oil Spill Response Project - Vancouver Island	2018-Q4	150
	Burnaby	Concord Brentwood	2022-Q4	200
	Burnaby	Westridge Marine Terminal Expansion	2018-Q4	
	Coquitlam	Burquitlam Capital	2019-Q4	35
	Delta	Delta Link Business Centre	2018-Q4	20
	Delta	Tilbury System Improvements Project	2019-Q3	24
	Langley	Hannelore Seniors Housing Development	2019-Q1	33
	New Westminster	New Westminster Secondary School	2020-Q2	106
	North Vancouver	Argyle Secondary School Replacement	2020-Q3	46
. Mainland/Southwest	North Vancouver	Lions Gate Sewage Treatment Plant	2020-Q4	700
	North Vancouver	Green on Queensbury	2020-Q2	22
	Pitt Meadows, Maple Ridge and Mission	Highway 7 Corridor Enhancements	2020-Q4	70
	Surrey	Guildhouse Lowrise Condominiums		20
	Tsawwassen	Delta iPort Cargo Centre	2020-Q4	130
	Vancouver	The Grayson Townhouses	2018-Q4	20
	Vancouver	Joyce Condominium	2020-Q4	40
	Vancouver	The Arc Condominium Development	2020-Q4	60
	Golden	Highway 1 - Donald to Forde Station Road	2020-Q4	19
8. Thompson-Okanagan	Kelowna	Ella Condominium Highrise	2020-Q4	30
-	Kelowna	Canyon Falls Middle (formerly Okanagan Mission Junior Middle)	2019-Q3	38
5. Cariboo	Prince George	Highway 97 Parsnip River Bridge Replacement	2020-Q3	32
o. North Coast	Stewart	Highway 37 - Nass River Bridge Replacement	2019-Q4	31

Region	Municipality	Project	Estimated Cost
	Victoria	Office Complex	(\$ million)
	Victoria	Rental Apartment Complex	40
1. Vancouver Island/Coast	Victoria	Victoria District Office	20
	Victoria	Yello on Yates	4
			4
	Burnaby	Madison and Dawson Condominium	2
	Coquitlam	Centennial Secondary School	6
	Coquitlam	Moody Middle School Replacement	2
	Lillooet	Bridge River 1 Unit Transformers 1 & 2 Replacement (formerly BR1 Replace Transformers T1 & T2)	4
	Mission	Ruskin Dam Safety and Powerhouse Upgrade	74
	New Westminster	The Peninsula Condominiums	2
	New Westminster	Victoria Hill Community	10
	Richmond	Pinnacle Living at Capstan Village	8
2. Mainland/Southwest	Surrey	Surrey Courthouse Expansion	2
	Vancouver	Addition Residential Development	2
	Vancouver	Cambria by Mosaic	2
	Vancouver	Kitsilano Secondary School Replacement	6
	Vancouver	Lord Strathcona Community Elementary School	3
	Vancouver	Northwest Condominiums	6
	Vancouver	The Independent Condominiums	3
	Vancouver	Strathcona Village Condominium Development	4
	White Rock	Beverley Condominiums	2
3. Thompson-Okanagan	Kelowna	Sarsons Lowrise Condominiums	7
8. Northeast	Dawson Creek	Peace Region Load Shedding RAS	2
0. IVUI UIEASU	Dawson Creek	Regional LNG Plant	n.a
Total			1,66

Appendix 4

Project Value and Project Status for each Industry Sector – (January - March 2018)

	Proposed	Construction started	Completed	On hold	Total
Oil and Gas	176,315	1,944	-	2,950	181,209
Utilities	14,165	15,792	863	7,019	37,839
Mining	20,396	351	-	16,233	36,980
Manufacturing	36,105	50	-	210	36,365
Residential	12,196	21,076	550	353	34,175
Mixed Use	5,302	10,428	-	1,000	16,730
Accommodation	7,977	4,274	-	1,356	13,607
Recreation	6,145	3,673	-	1,375	11,193
Roads & Highways	6,136	3,091	-	0	9,227
Other Infrastructure	2,390	5,780	-	0	8,170
Education	2,590	1,344	184	165	4,283
Health	2,339	1,942	-	0	4,281
Retail	708	2,970	-	56	3,734
Government & Other Institutional	306	1,457	27	0	1,790
Warehousing & Other Commercial	882	845	-	0	1,727
Office	314	168	40	245	767
Total	294,266	75,185	1,664	30,962	402,077

Development Region	Residential/ Commercial	Transportation & Warehousing	Mining, Oil & Gas Extraction	Utilities	Manufacturing	Public Services	Other Services	Total
Vancouver Island/Coast	95	14	5	17	0	13	8	152
Mainland/So uthwest	326	50	4	34	2	62	12	490
Thompson- Okanagan	54	12	4	19	1	11	5	106
Kootenay	10	0	7	5	1	2	5	30
Cariboo	5	5	6	7	1	3	0	27
North Coast	2	12	26	9	5	2	1	57
Nechako	1	1	12	4	0	0	0	18
Northeast	2	8	19	19	2	2	0	52
Total	495	102	83	114	12	95	31	932

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