

Health³

- Rates of arthritis, diabetes, leisure time physical activity, perceived mental health and self-reported stress are similar to provincial averages
- The region has a slightly higher prevalence of asthma and high blood pressure relative to provincial averages
- Despite relatively high levels of care and reductions in smoking and drinking, the region reports poorer health than provincial averages

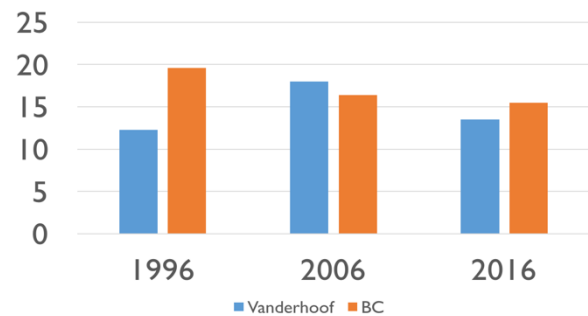


Very good/excellent perceived health (%)
 Overweight or obese (%)
 Current daily smoker (%)
 Heavy drinking (%)
 Consuming fruit/veg > 5 times daily (%)
 Has Regular Doctor (%)

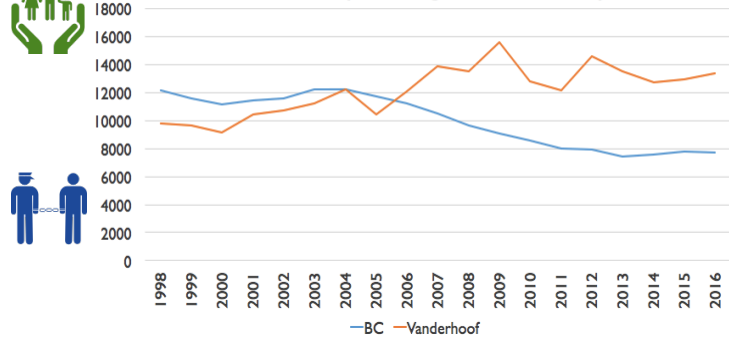
	2001		2009		2013	
	Northern Interior	BC	Northern Interior	BC	Northern Interior	BC
Very good/excellent perceived health (%)	54.1	57.7	50.3	56.9	54.1	59.9
Overweight or obese (%)	53.0	46.9	63.1	45.1	59.5	46.6
Current daily smoker (%)	26.0	18.3	18.3	14.2	19.9	11.1
Heavy drinking (%)	26.5	20.5	17.9	15.5	15.0	16.3
Consuming fruit/veg > 5 times daily (%)	35.6	39.1	52.7	42.4	37.2	41.3
Has Regular Doctor (%)	90.3	88.1	91.2	86.8	83.8	86.0

Social Services^{1,2} and Crime²⁰

% Prevalence of Low-income Families, 1996-2016



Crime Rate per 1,000,000 for all Criminal Code Violations (excluding traffic violations)



Data for the region suggest that “while income in this Local Health Area appears to be similar to the provincial average, rates of high school completion, female labour force participation, income assistance and serious crime are higher than BC averages. These differences are particularly notable in relation to women (especially single mothers in the region) and children...the average income in 2010 for female lone parents in the Nechako was approximately 35% less than the average in BC. The proportion of children who live in care was more than twice the provincial average, and teen pregnancy rate was almost triple.” (Shandro, Ostry and Scoble, 2011)²¹

Contact

Chris Buse, PhD

E: chris.buse@unbc.ca

W: www.unbc.ca/cumulative-impacts

P: +1.250.960.5778

Add a project to our living library of resources:

cumulativeimpactslivinglibrary.ca

About the CIRC

The CIRC is a pan-UNBC initiative and a platform for original research and community dialogue on the cumulative environmental, community and health impacts of resource development. We are located in Prince George.

About this project

CIRC—with funding from the Real Estate Foundation of BC—is focused on broad and inclusive public engagement. This project seeks to build new tools to support regional cumulative impacts assessment and enhance natural resource decision-making.

Exploring the Cumulative Impacts of Resource Development

A Regional Profile of the District of Vanderhoof, Bulkley-Nechako Region, British Columbia

About this document

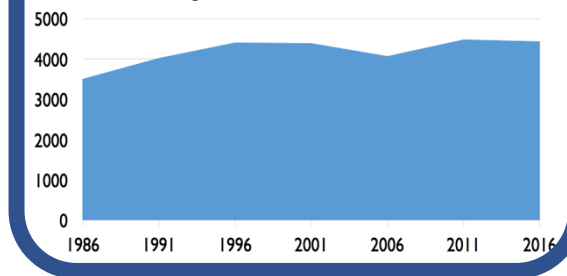
Resource development is a primary driver of local economies and social development in northern communities across British Columbia. However, there is an increasing need to understand the long-term positive and negative impacts of development activities for environments, communities and human health. This regional profile integrates a variety of data sources to provide a ‘snapshot’ of change in Vanderhoof and the surrounding area over time. While this is one tool to understand cumulative impacts of development activities, the perspectives and lived experiences of communities are an equally important source of information. UNBC’s Cumulative Impacts Research Consortium (CIRC) hopes this document, and the stories it elicits, will inform a collective conversation on the following question:

“How do we make better land-use decisions that account for long-term impacts to environmental, community and health values?”

Regional Demographics¹⁻²



Vanderhoof Census Population has grown 27% since 1986



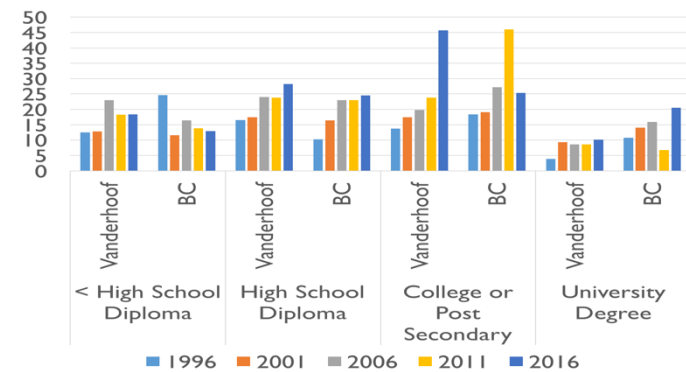
- As of 2016, Vanderhoof hosts a younger population than the province (median ages of 36.1 and 43.0, respectively)
- Between 1996-2006 there was an 8.2% decrease in local population

% of Census Population Identifying as Indigenous, Aboriginal, First Nations or Metis

Year	Vanderhoof	Bulkley Nechako	BC
1996	3.7	13.6	3.7
2001	5.3	14.8	4.4
2006	6.9	18.8	4.8
2011	11.1	18.8	5.3
2016	10.7	19.9	5.9

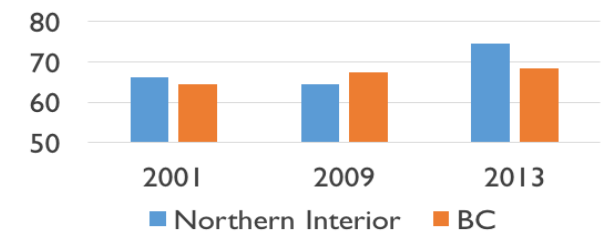
Carrier Sekani Tribal Council’s seven member First Nations claim title to 79,000 square kilometres (km²) in central British Columbia. Vanderhoof is within the territory of Saik’uz First Nation.

% of census population by education Vanderhoof and BC



- High school graduation, college/post secondary, and university education rates are rising in Vanderhoof

% of people indicating strong/somewhat strong sense of community belonging



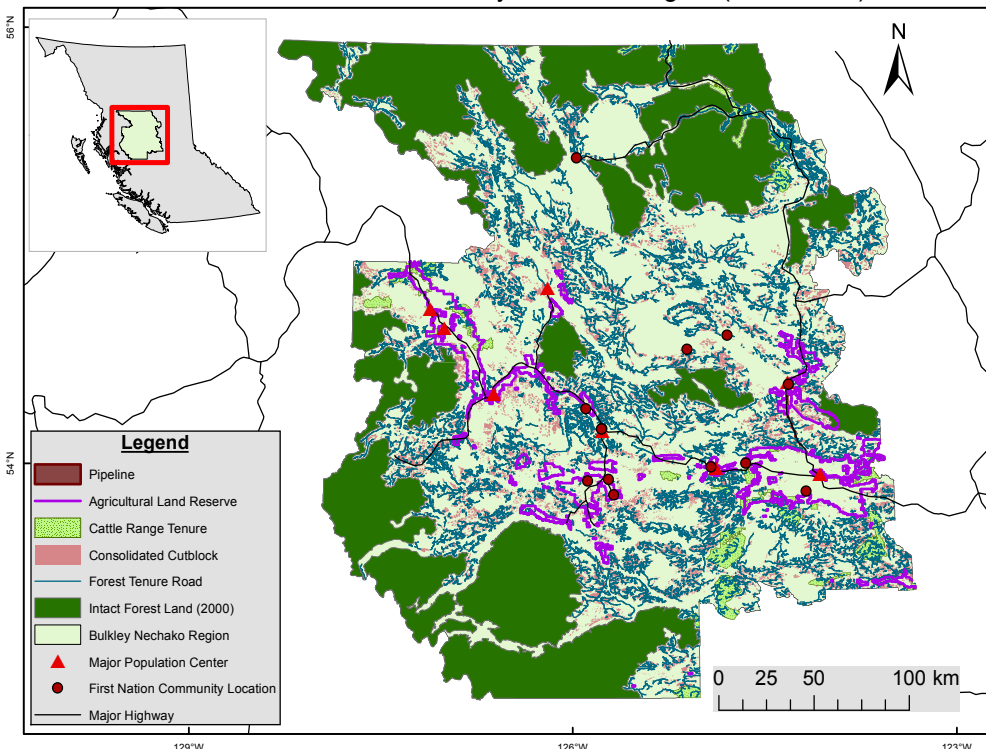
Residents of the Northern Interior have a strong sense of connection and belonging to their communities.³

CIRC

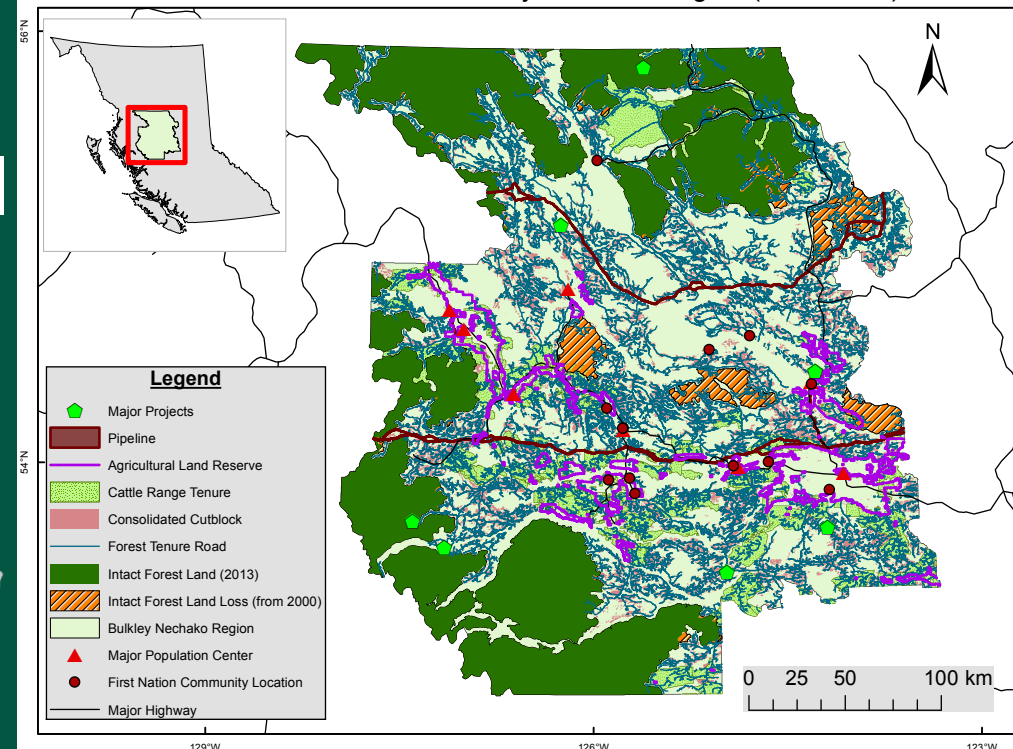
Cumulative Impacts Research Consortium

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Industrial Activities in Bulkley-Nechako Region (1996-2006)



Industrial Activities in Bulkley-Nechako Region (2006-2016)



Climate Change (2050)⁵⁻⁶

- Increases in average annual temperature
- Increases in precipitation especially during the winter months
- Reduction in snowpack especially in spring

Air Quality⁷⁻⁸

- Between 2011 to 2013, Vanderhoof exceeded national standards for PM2.5
- Primary sources of air pollution include road dust, combustion engines, and industrial operation throughout the region.

Water Quality⁹⁻¹⁰

- Impoundment of water, mountain pine beetle and forest loss impact water quality in the Nechako watershed

Fish and Wildlife¹⁰⁻¹²

- 12 red-listed and 64 blue-listed plant and animal species live in the Nechako watershed area
- Nechako River White Sturgeon are projected to decline to 200 individuals by 2040
- Moose, salmon and the Tweedsmuir caribou herd are all experiencing population declines

Agriculture Land Reserve (ALR)¹³⁻¹⁴

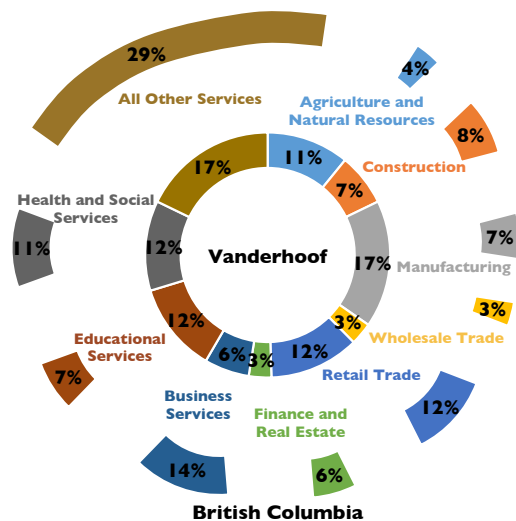
- 4.8% of the Bulkley-Nechako is within the ALR; Bulkley-Nechako comprises 8% of provincial ALR
- 8% decline in total farmland area; 5% decline in total farms from 2006-2011

“How government and the ministry will use the Cumulative Effects Framework assessments in the decision-making process for future natural resource development proposals has not yet been determined. This is concerning because if the assessments are to be of value, they must inform and support decisions about if and how development should proceed” (BC Auditor General 2015).¹³

“Over the past 200 years, and accelerating rapidly in the past half-century, cumulative effects in many forms and from many sources (almost all beyond the control of Carrier Sekani Tribal Council member Nations) have impacted heavily on many of the resources relied upon by CSTC member Nation[s] to practice their traditional mode of life.” (MacDonald 2014, *Cumulative Effects on the Aboriginal Rights and Interests of CSTC Nations*)¹⁸

Workforce Profile (Aged 15+) in Vanderhoof and BC, 2016

1-2



Employment Profile

1-2

	1996		2011		2016	
	Vanderhoof	BC	Vanderhoof	BC	Vanderhoof	BC
Median Income	\$20,556	\$19,982	\$27,562	\$28,765	\$38,128	\$33,012
Unemployment Rate	12.5%	9.6%	10.5%	7.8%	8.1%	6.7%
Employment Growth (Relative to last census)	4.5%	13.0%	9.5%	20.0%	0.4%	9.8%

- Unemployment rates in Vanderhoof are declining, but employment growth has slowed
- Vanderhoof is one of the most forestry dependent areas of BC. These jobs tend to be high-paying and impacts to the industry may negatively impact local economies

Housing

1-2, 19,22

- House prices have increased over 30% in the Bulkley-Nechako region between 1996-2011, with Vanderhoof seeing an increase of 40%
- Social service agencies reported a serious lack of affordable housing options in Vanderhoof, including emergency housing and low/no barrier housing and shelter options

	1991		2011		2016	
	Vanderhoof	BC	Vanderhoof	BC	Vanderhoof	BC
Average House Value \$	\$91,265	\$175,559	\$217,099	\$543,635	\$273,079	\$720,689
Average Rent \$	\$512	\$658	\$722	\$989	\$781	\$1,149
Median Owner Major Payments on Housing \$	\$573	\$666	\$759	\$1,023	\$1,030	\$1,387
% of owners spending 30% or more of household income on shelter costs	8.9%	13.0%	10.7%	23.8%	6.0%	20.7%
% of tenants spending 30% or more of household income on shelter costs	32.3%	32.9%	48.3%	45.3%	28.6%	43.3%