

Health³

- Chronic conditions (e.g. arthritis, diabetes, asthma, high blood pressure) are similar to provincial averages
- Leisure-time physical activity rates, perceived mental health, and self-reported life stress are similar to provincial averages
- Higher incidence of smoking, drinking, poor diets; access to adequate care a challenge

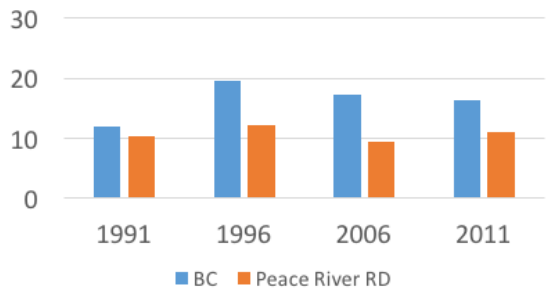


Very good/excellent perceived health (%)
 Overweight or obese (%)
 Current daily smoker (%)
 Heavy drinking (%)
 Consuming fruit/veg > 5 times daily (%)
 Has Regular Doctor (%)

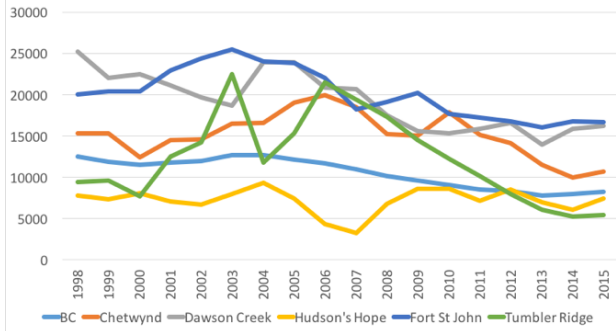
	2001		2009		2013	
	Northeast	BC	Northeast	BC	Northeast	BC
Very good/excellent perceived health (%)	55.4	57.2	49	56.9	55.6	59.9
Overweight or obese (%)	59.6	47.6	60.9	45.1	60.8	46.6
Current daily smoker (%)	23.5	18.3	28.3	18.6	21.3	11.1
Heavy drinking (%)	24	19.7	17	15.5	22.6	16.3
Consuming fruit/veg > 5 times daily (%)	35.1	39.1	34.6	42.4	34.6	41.3
Has Regular Doctor (%)	87.6	89.1	88	86.8	83.6	86

Social Services^{1,16} and Crime¹⁷

% Prevalence of Before Tax Low Income Individuals, 1991-2011



Crime Rate per 100 000 for all Criminal Code Violations (excluding traffic violations)



- Frontline services in NE BC are stretched to meet community needs
- Difficult to retain staff when competing with high wages of resource sector
- During economic downturn, foodbanks and shelters report increased service demand

- Crime rates have decreased over time, but are historically higher than provincial averages
- Some communities in the Peace experience 2 to 4 times the provincial average for assault (level 1), impaired driving, and breaking and entering

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.

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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.

Exploring the Cumulative Impacts of Resource Development A Regional Profile of the Peace River Region, British Columbia

About this document

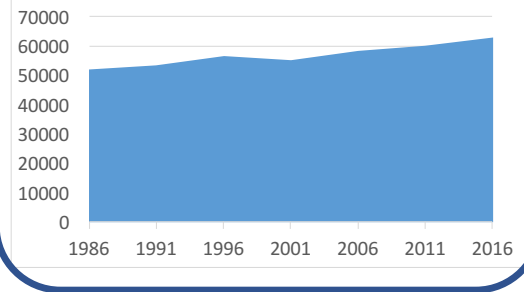
Resource development is a primary driver of local economies and social development in northern communities across British Columbia. However, there is an increasing need to understand the long-term positive and negative impacts of development activities for environments, communities and human health. This regional profile integrates a variety of data sources to provide a 'snapshot' of change in the Peace River Region 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

Peace Region Census Population has grown 21% since 1986

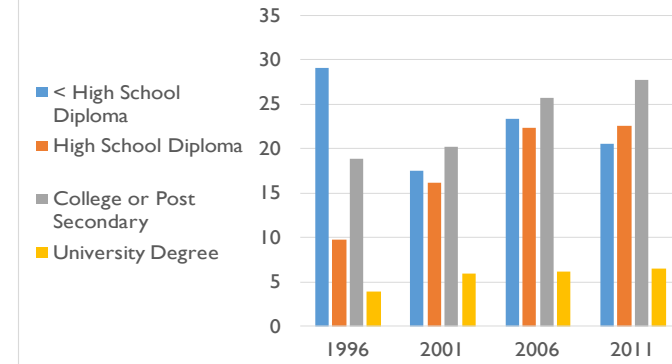


- The region typically grows 2-5% per year
- Between 1996-2001 there was a 2.5% decrease in regional population

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

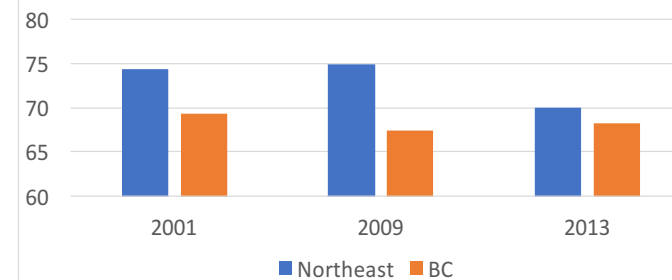
Year	Peace Region	BC
1996	9.1%	3.7%
2001	13%	4.4%
2006	12%	4.8%
2011*	13.5%	5.3%

% of Census Population by Education



- Education levels are rising in the Peace, but are not as high as provincial averages

% of people indicating a 'strong' or 'somewhat strong' sense of community belonging



CIRC

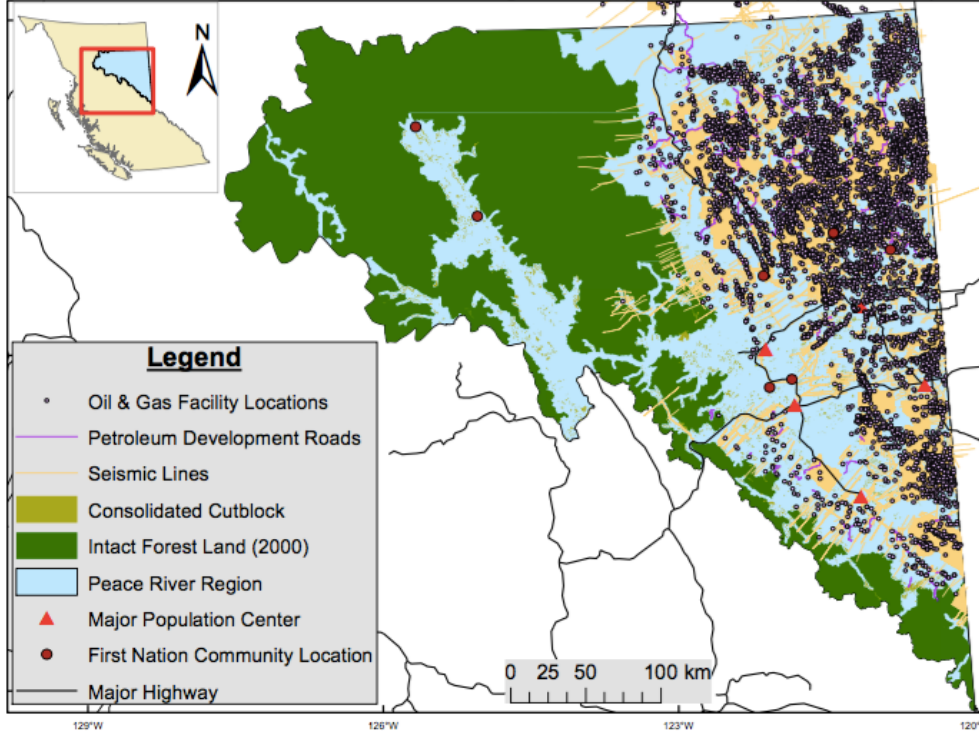
Cumulative Impacts Research Consortium

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Treaty 8 was signed in 1899, encompasses 840,000 sq. km, and is home to 8 BC First Nations each with a rich cultural heritage.

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

Industrial Activities in Peace River Region/Treaty 8 Territories (1996-2006) ⁴



“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

Climate Change (2030)⁵



- Warmer winters, hotter summers
- More consecutive days of rain in the fall
- Increase in extreme rainfall and other severe weather events (drought, fire risk)

Air Quality⁶⁻⁷



- Between 1988-2013, 15 monitoring stations in the region found few exceedances of provincial air quality standards for SO₂, NO₂, H₂S and PM_{2.5}
- PM_{2.5} exposure continues to be a health concern from increased traffic patterns and fire activity

Water Quality⁸⁻¹⁰



- General worsening of water quality over time, but no present health risks
- Data on ground water quality is limited in terms of natural and human impacts

Wildlife¹¹



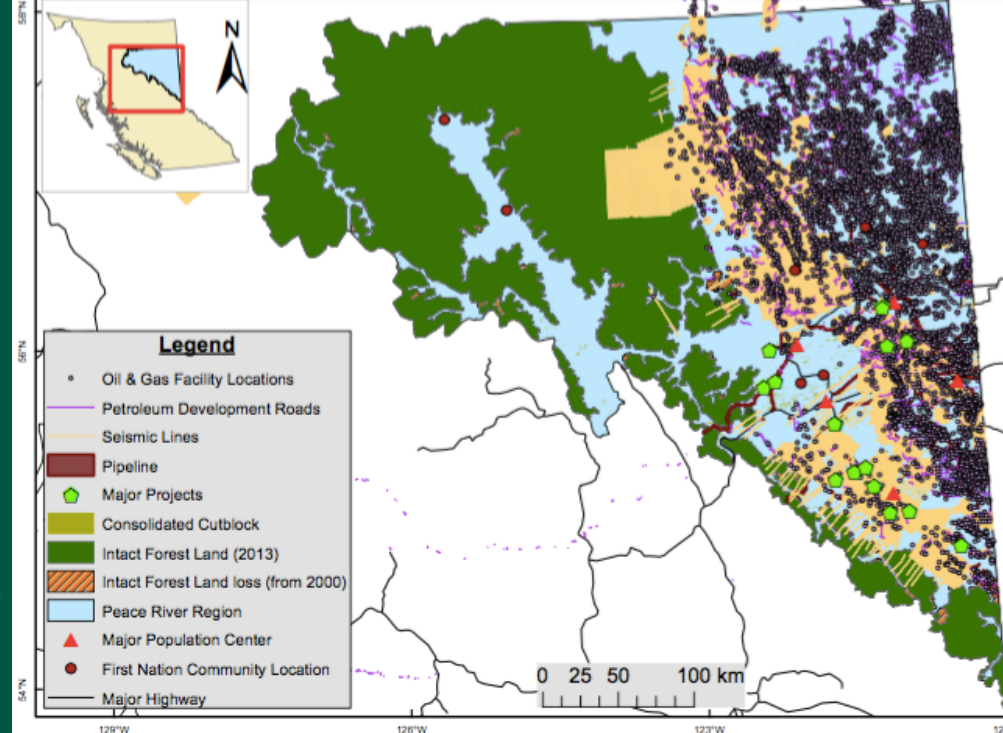
- Net cumulative impacts on grizzly bear, lynx, fisher, wolf, wolverine and caribou is significant
- Absolute reductions in regional landscape effectiveness among species range from 7-47% at present to a projected loss of 11-55% in 25 years

Agriculture Land Reserve (ALR)¹²



- 11% of the Peace is within the ALR; the Peace comprises 27% of the provincial ALR
- Farm size and operating expenses have increased over the past 25 years
- 7% decline in productivity from 2006-2011

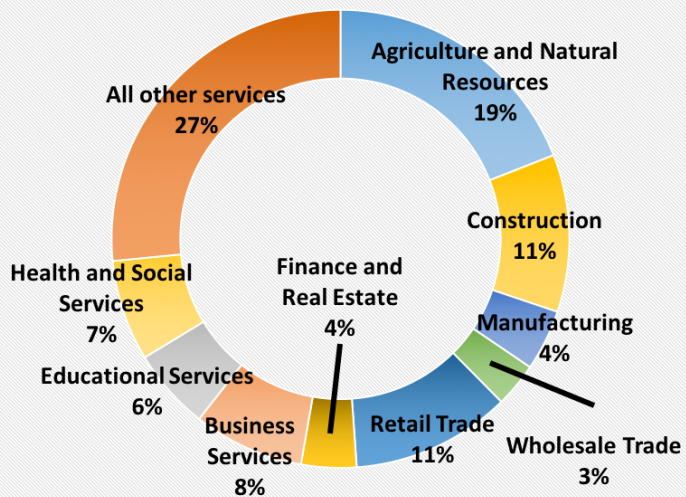
Industrial Activities in Peace River Region/Treaty 8 Territories (2006-2016) ⁴



“Sustainable management of this area is critical also for the protection of our rights guaranteed by Treaty 8; namely the right to hunt, fish, trap and gather. The exercise of Treaty rights are closely tied to the health of ecosystems and therefore, negative impacts to the ecosystem constitute infringement of those rights” (Chief Roland Willson, West Moberly First Nation, 2004).¹⁴

- As of 2016, housing prices have consistently grown 2-5% annually for many communities throughout the Peace¹⁵
- Fort St John home prices are higher on average than most communities in the Peace, and Tumbler Ridge has been witness to significant declines in housing prices over the past several years due to coal industry slowdown

Workforce Profile (Aged 15+), 2011 ¹⁻²



Employment Profile ¹⁻²

	Peace Region		BC	
	1996	2011	1996	2011
Median Income	\$20,298	\$36,538	\$19,982	\$28,765
Unemployment Rate	9.7%	6.4%	9.6%	7.8%
Employment Growth	12.4%		20.0%	

- The regional workforce distribution across sectors stayed consistent between 1991-2011
- Labour demands outpace local workforce availability leading to low unemployment rates, but some workers are precariously employed raising concern for long-term job security
- In 2011, Oil and gas employed about 13% of the region’s workforce

Housing Profile ¹⁻²

	1991	2011
	Average House Value	\$68,074
Average Rent	\$485	\$952
Median Owner Major Payments on Housing	\$575	\$1,145
% of owners spending 30% or more of household income on shelter costs	8.2%	15.4%
% of tenants spending 30% or more of household income on shelter costs	19.8%	35.4%