

Regional Storytelling Maps: Data description

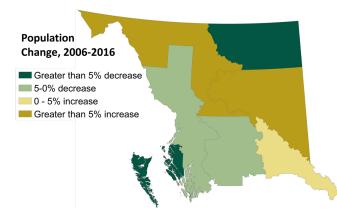
The "Regional Storytelling Maps" highlight the experiences and perspectives CIRC staff heard in our 2016-2018 community workshops, and integrates these stories with socioeconomic, health, and environmental indicators for each regional district. This document explains the visual representation of data and the sources used. For more information about the "New Tools" project for which these maps were developed, please visit the <u>project description</u> on the CIRC website.

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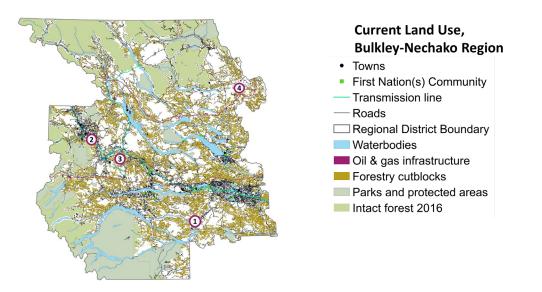


Population change



Shows the percent change in population for each regional districts (Census divisions) in northern British Columbia between the 2006 and 2016 Census. For example, the Bulkley-Nechako Regional District had a 0-5% decrease in population during this time period. Percent change calculated from the 2006 and 2016 Canadian Census (<u>https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E</u>)

Land use

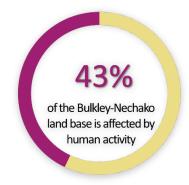


Shows the land use for the regional district, illustrating the extensive footprint of particular industries in that region. Includes cut blocks, forestry roads, highways, towns, First Nations communities, electrical transmission lines, oil and gas infrastructure, parks and protected areas, and the extent of intact forest lands in 2016. Features are symbolized so they can be seen on the map; they are not the direct size of footprint of the actual features. Datasets collected from Data BC, the BC Oil and Gas Commission, and the Intact Forest Landscapes (IFL) project.

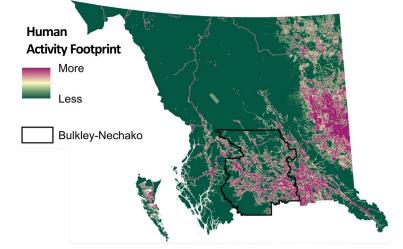


Human activity

Based on the 2017 land use layers mapped by CIRC, buffered by 250 m. This resulting area covers a certain percentage of each regional district's land base. (This only appears on the Bulkley-Nechako map.)



Impacted land



This map attempts to depict the physical impact of human activities on the landscape. It is not meant to show all indirect impacts of these activities on the environment, such as air and water pollution or habitat fragmentation. It is not exhaustive, and the end product is highly sensitive to the weighting scheme.

Fifteen different layers, each one describing a specific human activity, were downloaded from public sources. A buffer was added to each layer to account for the varying spatial extents of their impact, and a weight was assigned to account for their relative differences in intensity. Some layers were broken down into two or three individual layers and assigned a different weight and buffer. Such was the case with roads, whereby highways were assigned more weight than roads, and with cut blocks whereby the most recent cut blocks were assigned more weight than the older ones. Finally, the layers were then all added together. The data used in this map extends into the past to varying degrees with the oldest features going back to the 1950s. Likewise, not all data has been recently updated and some gaps do exist. All data obtained from DataBC, BC Oil and Gas Commission, and the Agricultural Land Commission.



Table 1: Sources, buffer sizes and weights of spatial data incorporated into the anthropogenic disturbance map

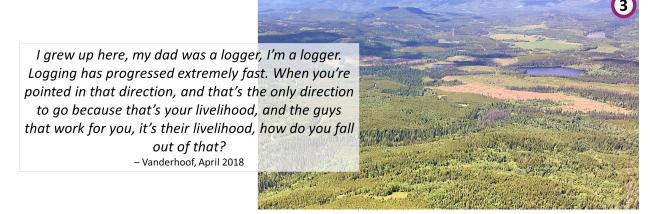
Layer name	Description	Buffer size (m)	Weight	Date accessed	Source
Alpine Ski areas	Those with "Master development agreement" or "operating agreement" designations.	0	2	11/7/2017	Data BC
BC Transmission lines	High-voltage transmission lines	250	2	11/7/2017	Data BC
Roads	All non-highway, non-freeway, non-expressway	250	5	2017	Data BC
Highways	All highways, expressway or freeways	1000	2	2017	Data BC
Forest Roads	Forest service roads	0	1.5	12/11/2017	Data BC
Cutblocks 1955-74	Cutblocks finished cutting from 1955 to 1974	0	2	8/3/2017	Data BC
Cutblocks 1975-94	Cutblocks finished cutting from 1975 to 1994	0	3	8/3/2017	Data BC
Cutblocks 1995-15	Cutblocks finished cutting from 1995 to 2015	0	4.5	8/3/2017	Data BC
Railway Tracks		500	2	8/14/2017	Data BC
ALR	Agricultural land reserve	0	2	11/16/2017	Agricultural Land Commission
Coastal marine industries	Wide range of coastal industries from logging camps, fish processing, tailings ponds, dumps, buildings, etc. from many sources including TRIM	250	3	11/17/2017	Data BC
Minfile-past producer	Past producing mine	1500	3	8/1/2017	Data BC
MINFILE- current producer	Current producing mine	2500	6	8/1/2017	Data BC
Geophysical ancillary points	Pre-2016. Camp sites, decking sites, drill sites, helipads or staging areas	250	4	8/4/2017	BC Oil & Gas Commission



Layer name	Description	Buffer size (m)	Weight	Date accessed	Source
Geophysical plans	1996-2006. Used to study the physical characteristics and properties of subsurface formations by explosives and other means. Two datasets combined (2002-2006; 1996- 2004)	250	1	8/4/2017	BC Oil & Gas Commission
Petroleum development roads	Pre 2006	250	2	8/4/2017	BC Oil & Gas Commission
Pipeline right- of-way	Post-2006. Polygon data for approved and post- construction pipeline rights of way	250	2	8/4/2017	BC Oil & Gas Commission
Road segments	Permitted Oil and Gas -related road segments	250	2	8/4/2017	BC Oil & Gas Commission
Oil well surface hole	Surface location of an oil well	250	4	8/4/2017	BC Oil & Gas Commission
Geophysical lines	Permitted	0	1	8/4/2017	BC Oil & Gas Commission
Facility locations	Pre-2016. A system of vessels, piping, valves, tanks and other equipment used to gather, process, measure, store or dispose of petroleum, natural gas, water or another substance	250	3	8/4/2017	BC Oil & Gas Commission
Sump Locations	A pit is an earthen excavation for purposes of containing drilling waste. A sump is a grouping of one or more pits found at a geographic location.	2000	1	8/4/2017	BC Oil & Gas Commission

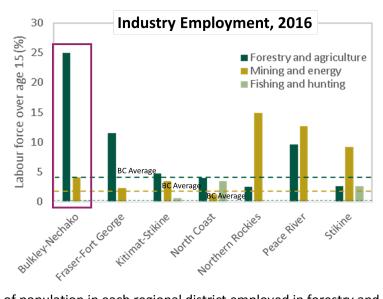


Quotes



Comments made by workshop participants and transcribed from audio recordings of CIRC community workshops, 2016-2018.

Industry employment



Shows the percent of population in each regional district employed in forestry and agriculture, mining and energy, and fishing and hunting. For example, data for the Bulkley-Nechako Regional District shows the significant role that forestry and agriculture play in this region, which can also be seen by footprint of forestry in the overview map. Data was obtained from the 2016 Canadian Census.

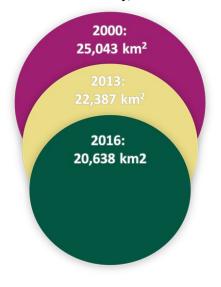


Intact forest land change

The amount of undisturbed land for the regional district for 2000, 2013 and 2016, as defined by the intact forest land (IFL) method. Criteria for inclusion as 'intact forest land' is a minimum area of 50,000 ha, minimum patch width of 10 km, and a minimum corridor width of 2 km to ensure areas are large enough to provide suitable range for wide-ranging animal species. Areas affected by human development are excluded from this area and include:

- settlements (1km buffer);
- infrastructure including roads, railways, navigable waterways (including seashore), pipelines, and power transmission lines (1km buffer);
- agriculture and timber production;
- Industrial activities during the last 30-70 years, including logging, mining, oil and gas exploration and extraction, etc.

Land base undisturbed by human activity, 2000-2016



Health characteristics



Shows the health characteristics for the health service delivery area from the 2017 National Health Survey. Population percent values have been scaled to a value out of 10 and rounded to the nearest whole number for the ease of interpreting the graphic.

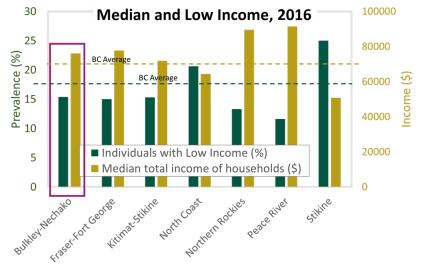
Sense of community

Percentage of population that expressed a strong or very strong sense of belonging to a local community, by health service region. Data from the 2017 National Health Survey.





Median and low income



The right axis shows the median income of each region. For example, the Bulkley-Nechako Regional District has a higher median household income than the BC average. The left axis shows the percent of individuals that are low income (before tax Individual low-income status – Prevalence of low income (%) https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/fam022-eng.cfm). For example, the Bulkley-Nechako Regional District has a lower prevalence of individuals with low income than the BC average. Data is from the 2016 Canadian Census.

First Nations



First Nations whose traditional territories overlap (in part or whole) with regional boundaries, as listed by the Regional District. The percent of population identifying as Aboriginal obtained from the 2016 Canadian Census.