

Climate change in BC

Climate change Historical data from 1900-2013 in BC

Historical data in BC from 1900-2013¹ shows that:

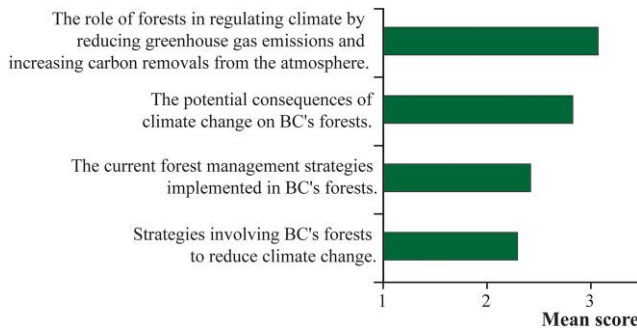
- Average annual temperature warmed by 1.4 °C across the province
- The night-time minimum average temperature in winter in B.C. increased by 3.1 °C
- Annual precipitation increased across the province overall
- The average sea level has risen along most of the B.C. coast
- Lakes and rivers have become free of ice earlier in the spring
- Water in the Fraser River is warmer in the summer

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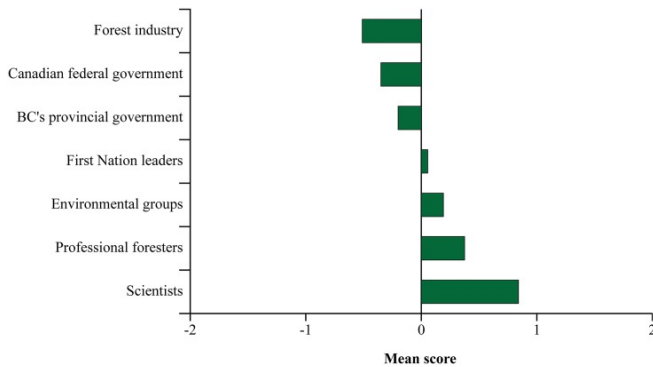
BC Public perceptions about climate change mitigation in forest sector

A recent study in BC (n=1,484 completed surveys) found that greater levels of public support exist in BC in regard to:

- Rehabilitation strategy (e.g. reforestation of unproductive forest land),
- Followed by conservation strategies (e.g. old growth conservation, reduced harvest),
- As compared to enhanced forest management strategies (e.g. improved harvesting and silvicultural techniques).²



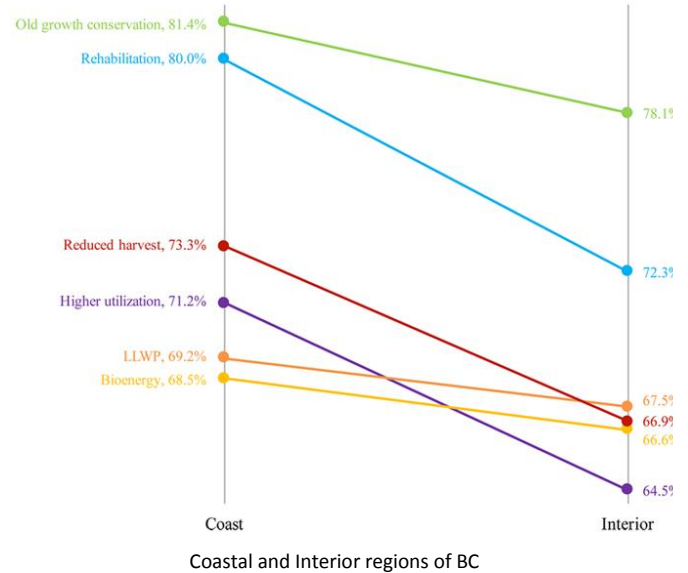
Mean scores representing the degree of knowledge about four different topics related to climate change in the context of forests and their management (1= not at all knowledgeable and 5= very knowledgeable). Figure adopted from²



Mean scores representing the level to which respondents trust the groups of actors when it comes to providing information about climate change issues in BC's forests, with -2 = strongly distrust and 2 = strongly trust. Figure adopted from²

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When a set of potential forest carbon mitigation alternatives and perceived effectiveness were discussed and prioritized among stakeholders and Indigenous Peoples, different results were obtained.



The average cumulative-derived preference for the six strategies on the coast and the interior. The derived preference of each strategy was calculated by summing, for each objective, the product of the average performance of a strategy against an objective. The resulting score was transformed into a percentage by dividing it with the maximum possible score of a strategy.³ ---stakeholders and Indigenous Peoples.

BC floods a warning of what's to come [?]

It's the second year in a row that parts of the Interior have been hit by massive floods.⁴

- BC floods are a warning of what's to come, climate change researchers say.⁵
- It's not easy to connect extreme weather events to global warming.⁴
- There is a real concern that what we're seeing may in fact become the new normal according to Public Safety Minister Mike Farnworth.⁴
- For those caught in rising waters, the price is financially and emotionally devastating.⁵



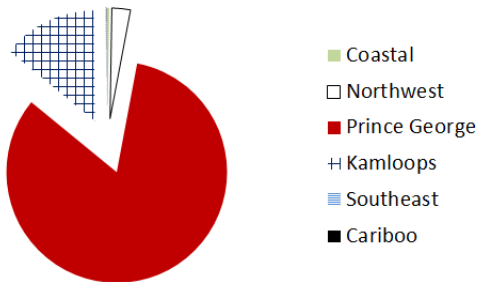
To access the photo [click here](#) [\(Read more\)](#)

Wildfires in BC – 2018

Current Statistics from BC Wildfire service shows that a total of 25,958 hectares burned from April 1, 2018 to May 27, 2018 (current fiscal year) in BC.

Distribution of wildfires in BC from April 1, 2017 to Dec 31, 2017 is shown in the figure. Source of data BC Wildfire Service [BCTOX Graph] (BC-Wildfire-Service)

[\(Read more\)](#)



Distribution of wildfire in BC

Wildfires in BC

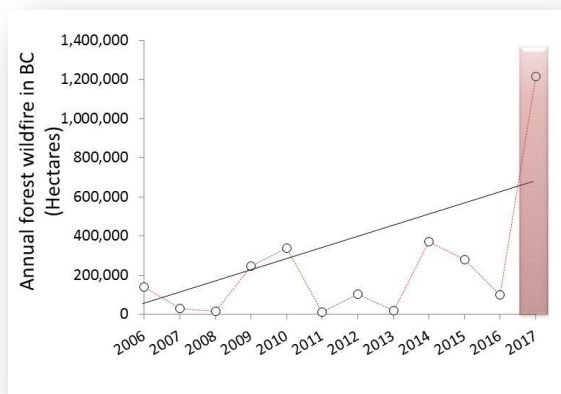
2006 – 2017

Mean (min - max) wildfire in BC from 2006 to 2017 were:


- Total fires was 1,844 (653 (2011) - 3064 (2009)),
- Total hectares 154944 (12604 (2011)-369 (2014))
- Total cost 182 (54 (2011) - 297 (2014)) millions dollars

Among them 39% were caused by people and 61% were caused by lightning.

Total wildfire from April 1, 2017 (past fiscal year) to Dec 31, 2017 in BC was 12,154 km².



Annual forest wildfire in BC (Hectares) (2006 to 2017)

 Depicts wildfire from April 1, 2017 (past fiscal year) to Dec 31, 2017 (1,215,494 hectares) Source of data BC Wildfire Service [BCTOX Graph]

--- Values related to 2017 are released as estimates and subject to modification (increase or decrease) at later stages.

Air quality and outdoor exercise

Acute subclinical effects of air pollution exist in older adults exercising outdoors in winter.⁶

An interquartile increase in the Air Quality Health Index was associated with a significant increase in heart rate (0.33%) and significant decreases in forced expiratory volume (0.30%), and systolic (0.28%) and diastolic blood pressure (0.39%).⁶

Reference

1. gov.bc.ca. Government of British Columbia. Impacts of Climate Change. <https://www2.gov.bc.ca/gov/content/environment/climate-change/adaptation/impacts> (accessed Mar 26, 2018).
2. Peterson St-Laurent G, Hagerman S, Kozak R, et al. Public perceptions about climate change mitigation in British Columbia's forest sector. PLoS One 2018;**13**(4):e0195999.
3. Peterson St-Laurent G, Hoberg G, SRJ S. A Participatory Approach to Evaluating Strategies for Forest Carbon Mitigation in British Columbia. . Forests 2018;**9**(4):225.
4. CBCNews-2018-05-15. The new normal? It's too early to blame B.C.'s floods on climate change, scientists say. <http://www.cbc.ca/news/canada/british-columbia/the-new-normal-it-s-too-early-to-blame-b-c-s-floods-on-climate-change-scientists-say-1.4662925> (accessed May 29, 2018).
5. CBCNews-2018-05-24. B.C. and N.B. floods a warning of what's to come, climate change researchers say. <http://www.cbc.ca/news/technology/climate-change-b-c-n-b-river-flooding-1.4676032> (accessed May 28, 2018).
6. Stieb DM, Shutt R, Kauri LM, et al. Cardiorespiratory Effects of Air Pollution in a Panel Study of Winter Outdoor Physical Activity in Older Adults. J Occup Environ Med 2018.