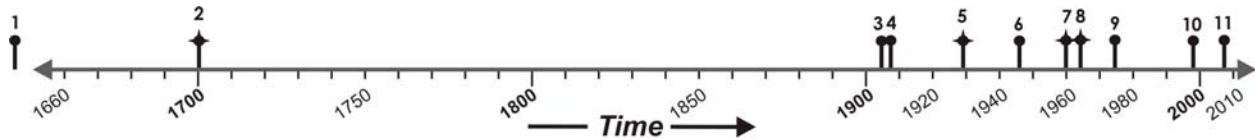
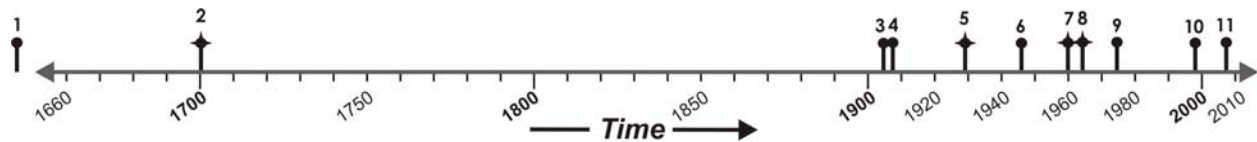


## TIMELINE

### Tsunami Events in Canada



1. ~16<sup>th</sup> century Knight Inlet BC, A massive rock avalanche from the side of the fjord generated large waves that destroyed the First Nations village of Kwalate. Modeled wave heights are from 2 to 6 m. (Coastal - local impact)
2. **1700**, Jan. 26 British Columbia, outer coast. An earthquake of estimated magnitude 9 was triggered by the rupture of the Cascadia Subduction Zone, which extends offshore from Vancouver Island to California. This earthquake generated a significant local tsunami that also traveled across the Pacific. On the west coast of Vancouver Island, the tsunami completely destroyed a village of the Huu-ay-aht First nation near Pachena Bay, leaving no survivors. These events are recorded in native oral accounts from several localities in the Pacific Northwest. Geological evidence of this tsunami along the west coast is often provided by a sand sheet or layer up to 10 cm thick, sometimes containing marine fossils and overlying a buried soil. (Coastal - widespread impact)
3. **1905**, Aug. 13 British Columbia, Spences Bridge. A landslide on the bank of the Thompson River generated a large wave that resulted in 15 fatalities and destroyed 20 houses. Wave heights of 4.5 to 6 m were observed with a run-up of 22 m. (River - local impact)
4. **1908**, Apr. 26 Quebec, Notre-Dame-de-la-Salette. A landslide on the bank of the Liève River generated a large wave that had a run-up of 15 m. Thirty-three people were killed and 12 buildings destroyed. (River - local impact)
5. **1929**, Nov. 18 Newfoundland, Burin Peninsula. A massive, submarine landslide off the continental slope south of Newfoundland, triggered by a magnitude 7.2 earthquake, triggered a deadly tsunami which struck the coast of the Burin Peninsula. Tsunami waves, varying in height between 3 and 7 metres, travelled at a speed of 140 kilometres per hour. The horizontal run-up, which is the distance travelled in-land, measured as much as 1 kilometre. Twenty eight fatalities occurred in the Burin Peninsula. Forty communities on the south coast of Newfoundland were affected, homes, boats and wharfs were destroyed and about 10 000 people left homeless. Total damage from the tsunami was estimated at \$1 million in 1929 dollars (about \$20 million today). (Coastal - widespread impact)
6. **1946**, June 23 British Columbia, Deep Bay, Strait of Georgia. A magnitude 7.3 earthquake on Vancouver Island triggered an underwater landslide that caused a tsunami. One person drowned. (Coastal - local impact). The same earthquake also triggered a rock avalanche that swept into the lake and generated a large wave that destroyed the forest up to 3 km from the lake - now named Landslide Lake. Wave heights are estimated to have been around 29 m with a run-up of 51 m. Several other large waves were triggered by different landslides in lakes and inlets by this earthquake. (Lake - local impact)
7. **1960**, May 23 British Columbia, outer coast. A magnitude 9.5 earthquake in Chile caused a 0.6 m-high tsunami at the Tofino tide gauge. Run-up was higher in many areas. Damage to log booms along the west coast of Vancouver Island and in Haida Gwaii. (Coastal - widespread impact)



8. **1964, Mar. 28** British Columbia, outer coast. A magnitude 9.2 earthquake in Alaska (March 27) triggered a tsunami, that, in Canada, struck portions of Haida Gwaii and Vancouver Island. A 1.2 m- high wave hit Tofino and the tsunami was higher in many other areas. The worst hit area was Port Alberni, where the waves amplitude was over 6m. The sea surged up the Somass River, with the highest wave being 4.3 metres and a wave run-up of 1 kilometre inland. It destroyed houses and automobiles, and buildings were dragged seaward. A total of 260 houses were damaged. Total damages were \$10 million, of which \$ 5 million was at Port Alberni (1964 dollars). (Coastal - widespread impact)
9. **1975, April 27** British Columbia, Kitimat. A submarine landslide triggered a large wave, with a wave height of 8.2 m. in Moon Bay of Kitimat Arm. Damages to wharves and buildings were estimated at about \$600 000 (1979 dollars). Fortunately, there were no injuries. (Coastal - local impact)
10. **1998, Oct.6** British Columbia, Troitsa Lake. A large wave, 1.5 to 2.0 m-high, was generated in Troitsa Lake by the collapse of a fan delta where a stream entered the lake. The wave damaged wharves, boats and trees. No one was hurt. (Lake - local impact)
11. **2007, Dec. 4** British Columbia, Chehalis Lake. A landslide into the lake created a large wave over 10 m high that destroyed and damaged campgrounds and surrounding forest. (Lake - local impact)