

TYPES OF TSUNAMIS AND RISK AREAS - NOTIFICATION TIMES Fact Sheet



The Provincial Emergency Program has divided the province into five zones (ABODE) for notification purposes. For a map of these zones, [Click here>>](#)

Zones A, B, and C are generally considered as tsunami-risk areas in British Columbia.

Types of Tsunamis

Pacific-wide Tsunami: the impact of a Pacific-wide tsunami (one which does not originate along the coasts of Alaska, British Columbia, Washington, Oregon or California) to coastal B.C. depends on the earthquake magnitude, source distance and direction of approach. B.C. arrival times of a Pacific-wide tsunami will be 6 hours or more (up to 18 hours) depending upon its place of origin. The areas most vulnerable to distant tsunamis are Zones A, B, and C.

Regional Tsunami: in the tsunami warning system, B.C. is part of a region extending from the western tip of the Aleutian Islands to the southern tip of California. Because of the vast coastal area encompassed by this region, tsunamis generated within it may impact quite differently at different locations. In some instances the effects will be very localized.

The principle source area for regional tsunamis affecting B.C. is Alaska, including the Aleutian Islands. The time to reach the northern B.C. coast can be as short as 2 hours. In 1964 waves of 4.1 metres hit Port Alberni causing \$5 million in damages.

Local Tsunami: relatively small tsunamis may result from earthquakes occurring off the B.C. coast, in inner waters such as Juan de Fuca Strait, the Strait of Georgia or Puget Sound, or from submarine slides in areas such as the Strait of Georgia. There is the potential for a destructive tsunami from a large subduction earthquake in the northern portion of the Cascadia subduction zone. Should this occur, Zone C would be the most affected B.C. area.

Because travel time is so short for any local tsunami, there is very little that can be done to provide warnings for the closest B.C coastal areas. Anyone in designated coastal areas should assume that a tsunami has been generated if they feel strong shaking from an earthquake and should immediately move to high ground.

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