

B-SAFER

Earthquake Scenarios

M7.0 Georgia Strait and M9.0 Cascadia Subduction Earthquake Epicenters

This map shows the epicenters of the two earthquake scenarios being analyzed as part of the Burnaby Strategies and Actions for Earthquake Resilience (B-SAFER) project. The two scenarios include a M7.0 Georgia Strait earthquake, and a M9.0 Cascadia Subduction earthquake.

M7.0 Georgia Strait:

In 1997, a magnitude 4.6 earthquake occurred 3 to 4 km beneath the Strait of Georgia. This scenario visualizes the effects of that event if it had a magnitude of 7.0, and represents a strong ground shaking event that could strike Metro Vancouver.

M9.0 Cascadia Subduction:

Full rupture of the Cascadia interface fault, the fault defining the boundary between the North American and Pacific Ocean plates. This magnitude 9.0 event, often referred to as 'The Big One', affects most communities in southwestern British Columbia.



M9.0 Cascadia Subduction



City of Burnaby



Canada USA Border



M7.0 Georgia Strait

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The data presented in this map originated from the National Earthquake Scenario Catalogue, with site-specific updates carried out as part of the B-SAFER project. More details at:
<https://opendrr.github.io/earthquake-scenarios/>



M7.0 Georgia Strait
Epicenter coordinates:
latitude = 49.243 degrees,
longitude = -123.627 degrees,
depth = 3km



City of
Burnaby



M9.0 Cascadia Subduction
Epicenter coordinates:
latitude = 48.250 degrees,
longitude = -125.217 degrees,
depth = 15km

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