

# [http://www.bchydro.com/news/press\\_centre/news\\_releases/2014/seismic-hazard-assessment.html](http://www.bchydro.com/news/press_centre/news_releases/2014/seismic-hazard-assessment.html)

## **Backgrounder**

Dec 5, 2014

### **Seismic Hazard Assessment backgrounder**

- BC Hydro has completed a new seismic hazard assessment to better identify the hazards to its facilities in the event of a major earthquake.
- The study took six years to complete and is the first-of-its-kind by a hydroelectric utility in North America. It was completed in collaboration with international experts and scientists.
- The study provides BC Hydro a better understanding of the intensity of ground movements that could be expected at its facilities in the event of a major earthquake.

### **What did the study find?**

- The risk of a major seismic event has always been present in British Columbia, particularly on Vancouver Island. The study found the seismic hazard:
  - decreased or remained stable for the Peace River and Columbia River systems,
  - remained about the same for the Lower Mainland, and
  - increased for Vancouver Island and the Bridge River system.
- In some circumstances, the expected level of shaking in a high-magnitude earthquake hasn't changed, but the duration of shaking could be longer leading to an increase in the hazard.
  - For example, the seismic hazard assessment determined the dams on the Campbell River would be subject to extended shaking. The Jordan River dam on the west coast of Vancouver Island would experience both longer and stronger shaking.

### **How is BC Hydro responding?**

- BC Hydro is prioritizing its capital investments to help address increased hazards identified on Vancouver Island and at Bridge River. Over the next 10 years, BC Hydro will invest \$1.9 billion in dam safety and seismic upgrades.

### **Campbell River system (Vancouver Island)**

- The \$1-billion John Hart generating station replacement project is underway.
- \$700 million will be spent on Vancouver Island dam safety upgrades, including key dams on the Campbell River system:
  - John Hart dam (in planning)
  - Ladore dam (in planning)
  - Strathcona dam (proposed)
- Future studies are planned for the Comox, Elsie and Puntledge dams to assess their respective performance.

### **Jordan River system (Vancouver Island)**

- BC Hydro plans to meet with residents and local officials in the Jordan River area to review the study's results and plan of action in the event a major earthquake causes the dam to fail.

### **Bridge River system (between Whistler and Lillooet)**

- A study is underway at Terzaghi dam to assess its performance. A study on Seton dam will be prioritized in future work plans.
- Plans are underway at the La Joie dam to reduce the peak level of the reservoir.

### **For more information please contact:**

[BC Hydro Media Relations](#)

# CHANGE IN SEISMIC HAZARD

