

Western  
UNIVERSITY • CANADA

# **Field School in British Columbia: Observations and Lessons Learned**

**May 2022**



# Field School Goal



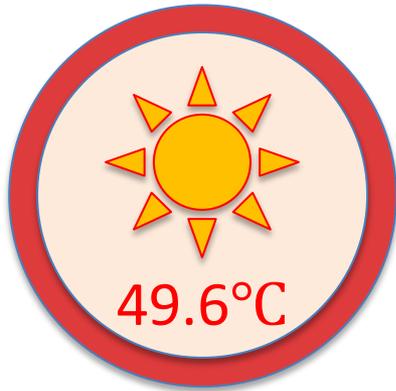
# Observed Hazards



# Observed Hazard - Wildfire



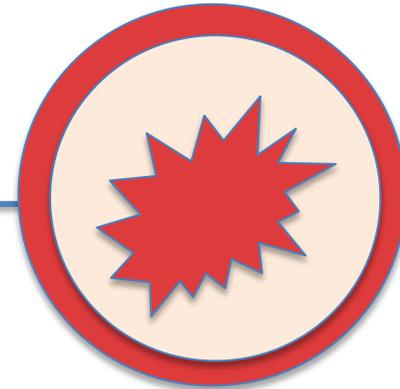
# Lytton Wildfire



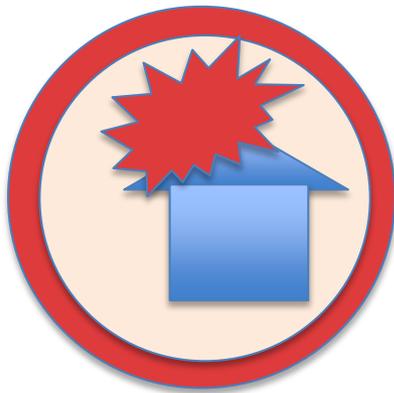
**June 29th, 2021**

**June 29th, 2021**  
Broke the highest temperature  
record in Canada

Wildfire started



# Lytton Wildfire



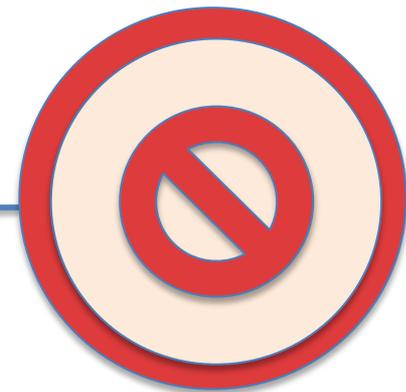
**May 20th, 2022**

Buildings are destroyed, and people have evacuated



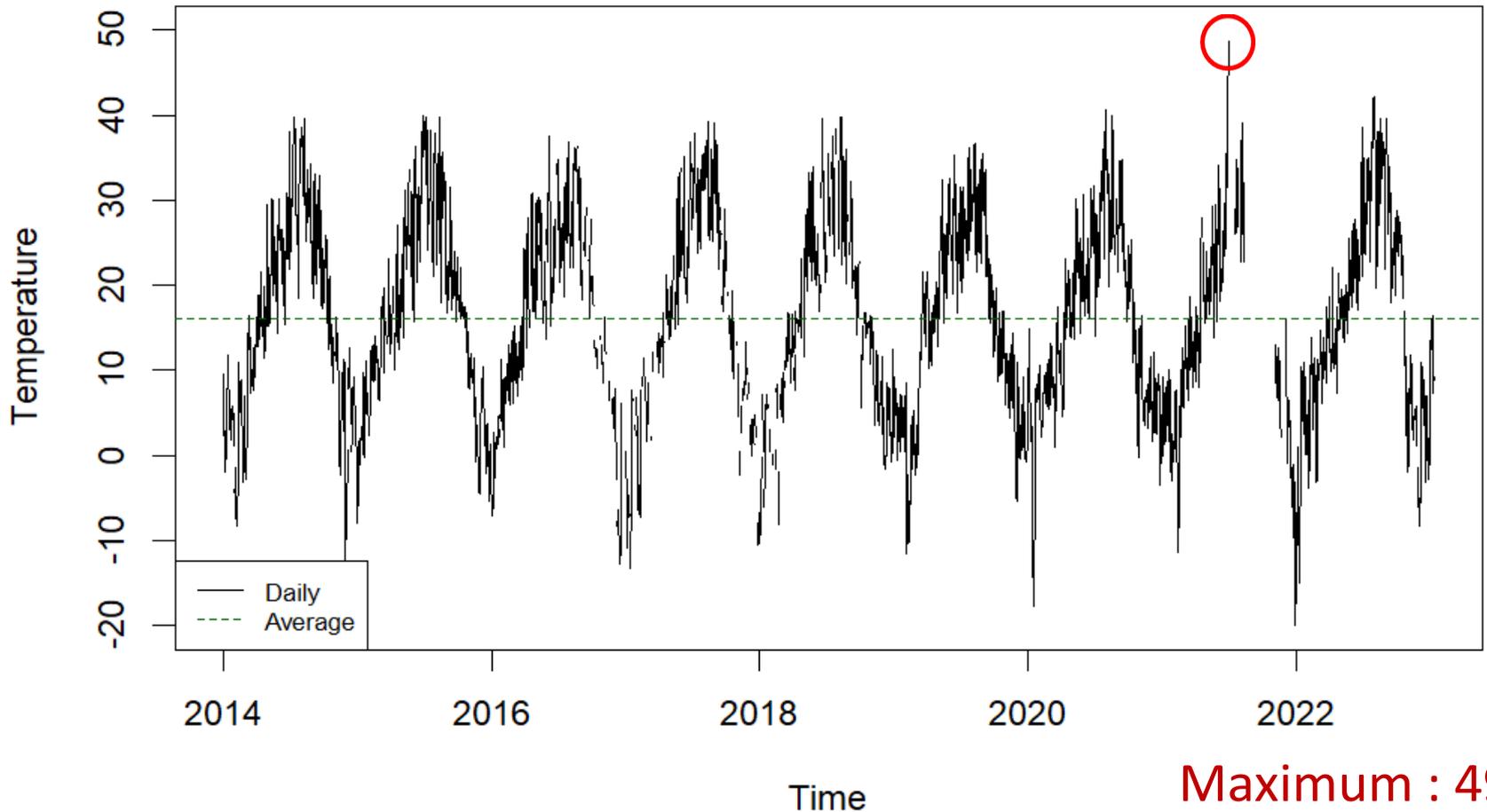
**July 7th, 2021**

Burned 90% of the village



# Wildfire – Lessons learned

Lytton temperature plot (Jan 2014 - Oct 2022)



Maximum : 49.6°C

Average: 16.08°C

# Wildfire – Lessons learned



*FireSmart BC*

# Observed Hazards



# Observed Hazard - Flood

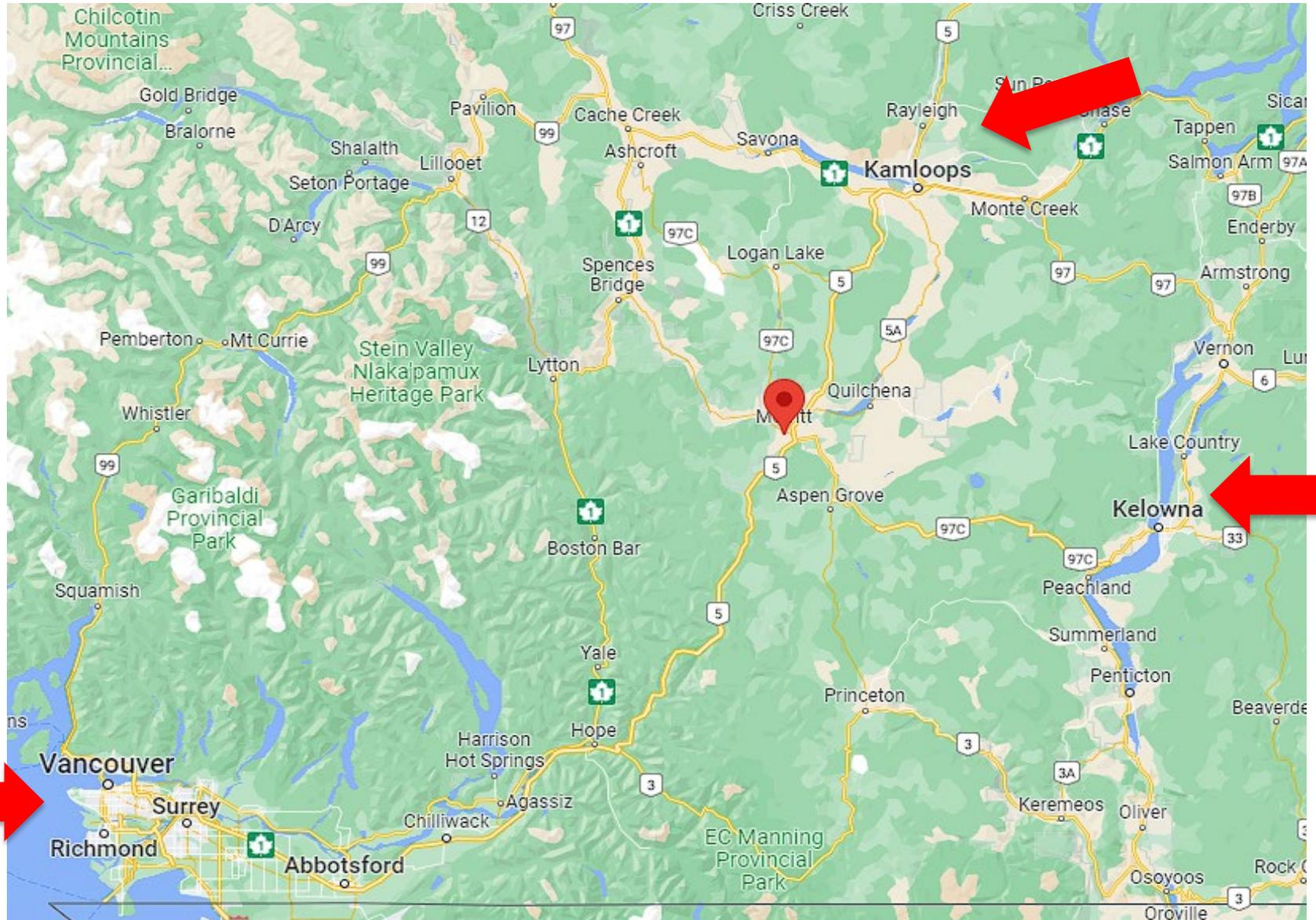


# November 2021



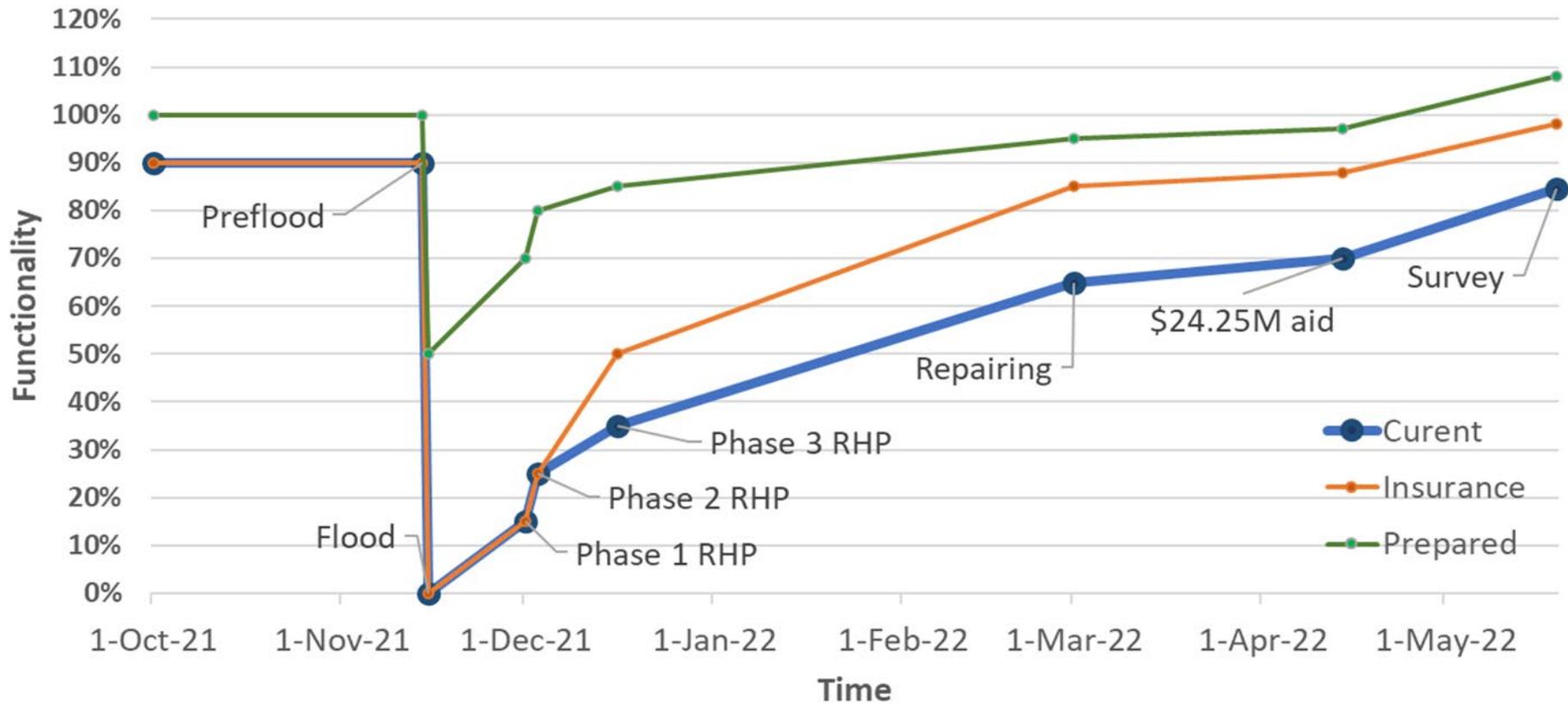
Global  
NEWS

# Beyond Flood Waters



# Merritt Resilience

## Merritt Flood 2021 Resilience Curve



# Observed Hazards



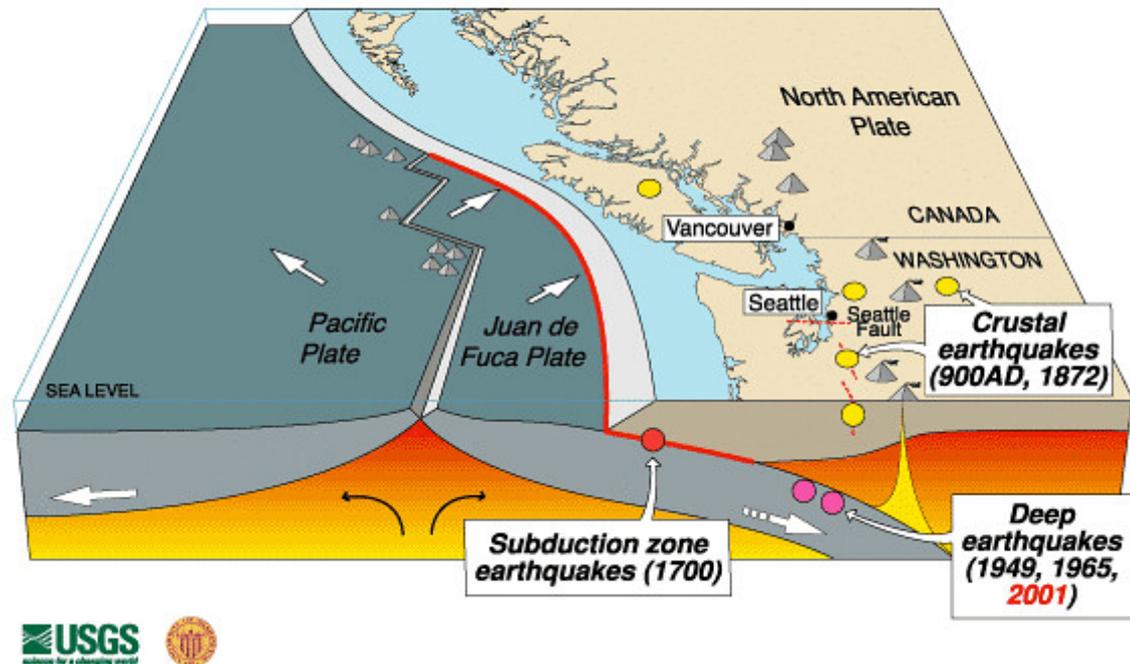
# Observed Hazard - Earthquake



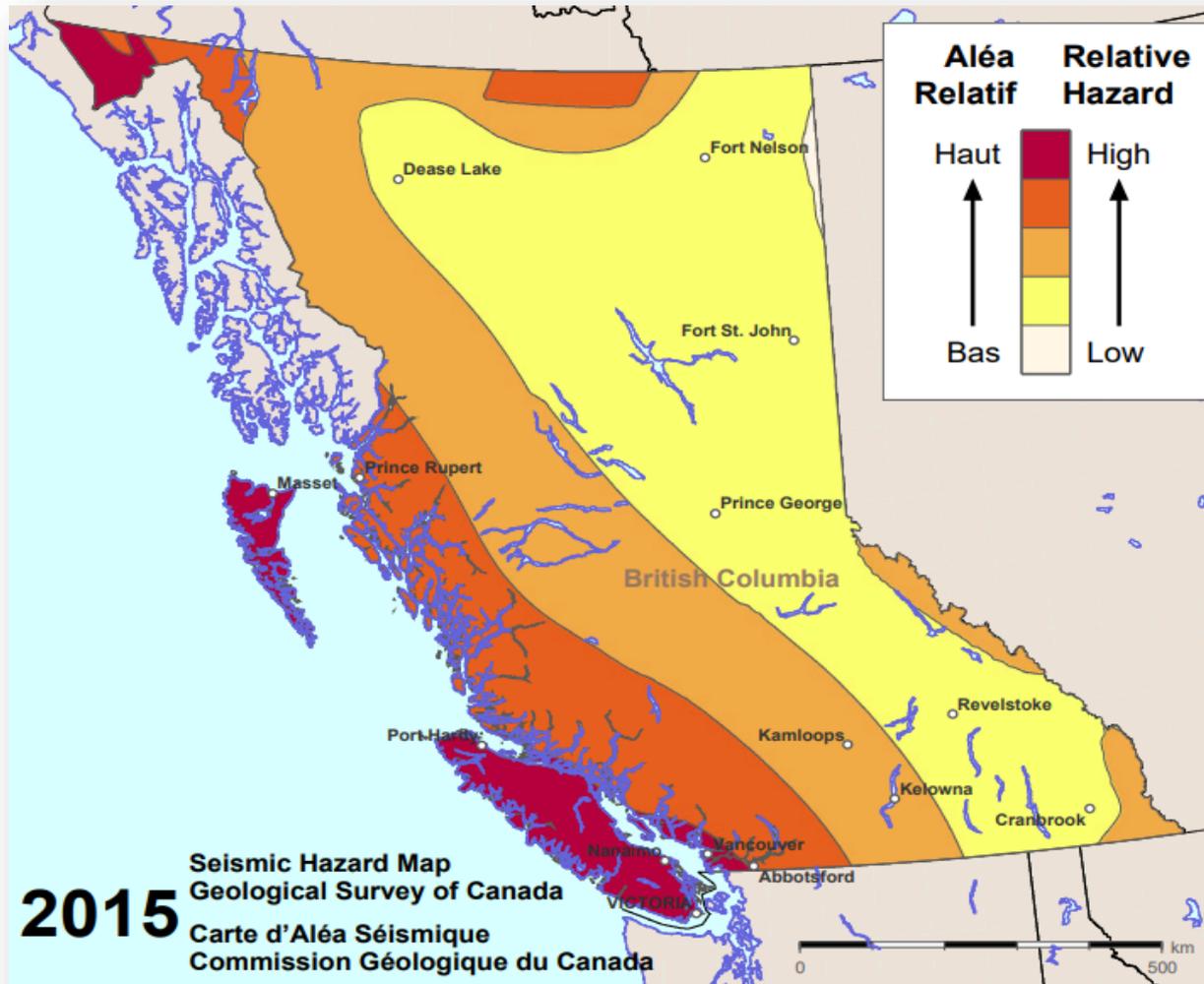
# Types of Earthquakes in British Columbia

- Shallow earthquakes in the North American plate
- Deep earthquakes in the subducting oceanic plate
- Large subduction zone earthquakes occurring between the interface of the Juan de Fuca plate and North American plate.

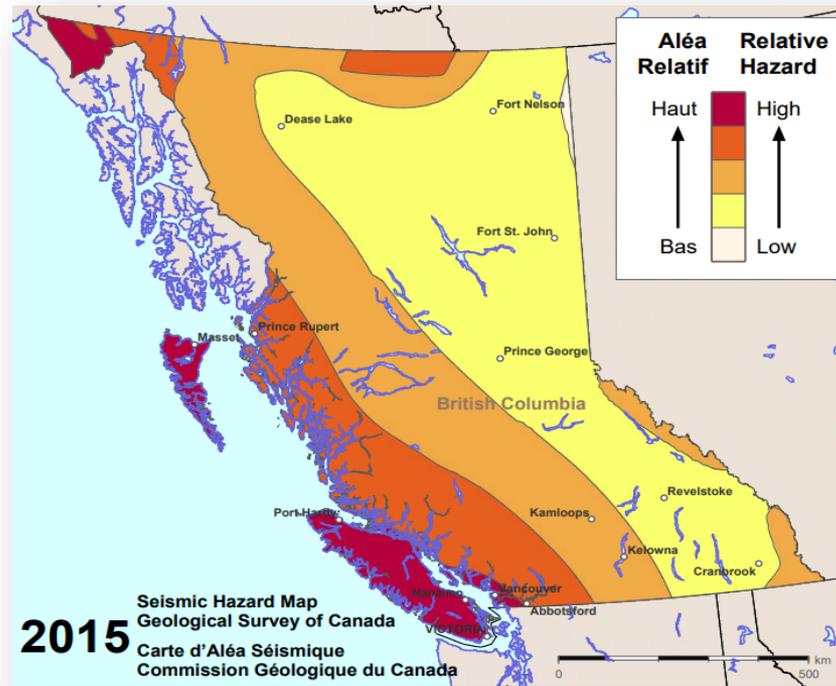
**Cascadia earthquake sources**



# Damage Caused by Earthquakes

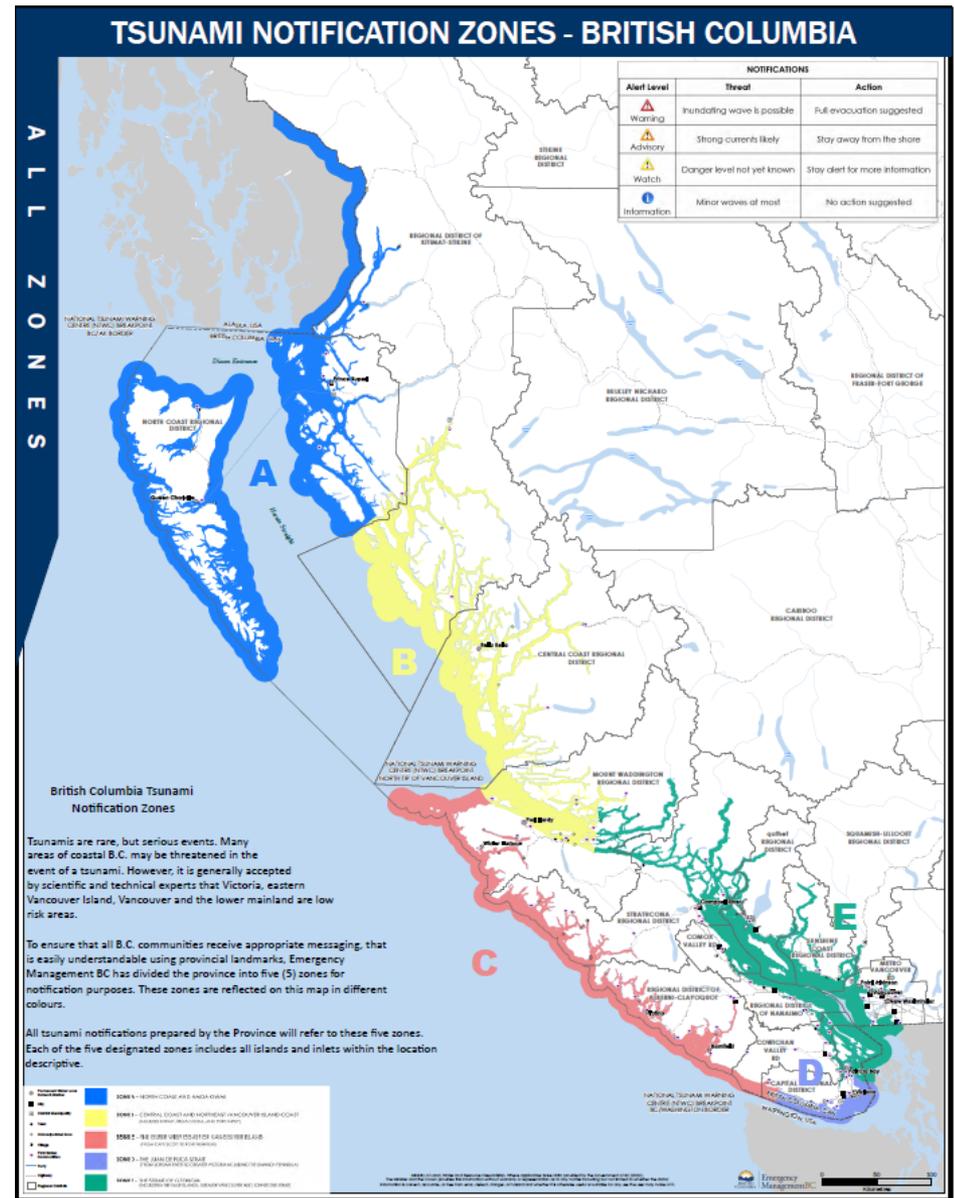


# Damage Caused by Earthquakes



# Tsunami in British Columbia

- Damaging tsunamis are a serious risk for many coastal areas in B.C
- The most significant tsunami risk is a tsunami from the next Cascadia Subduction Zone earthquake



# Observed Hazards



# Observed Hazard - Landslide



# Landslides in BC: Types and Stats



# Wreck Beach Landslide(s)

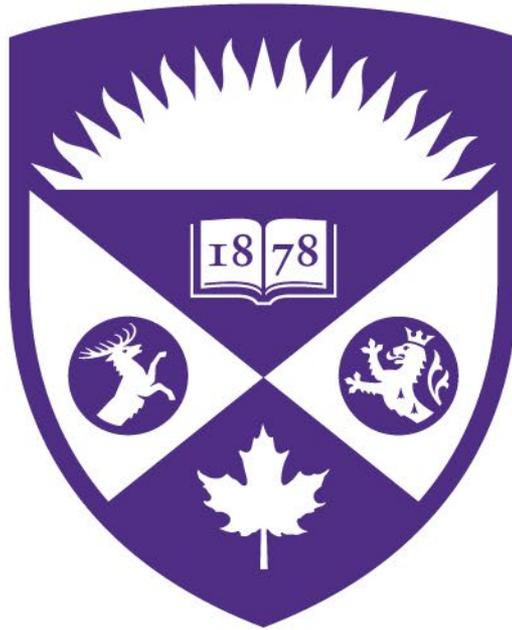


# Lessons Learned



# Lessons Learned From the British Columbia Field School





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