

Boundary Region Flood and Geohazard Risk Assessment

Project Primer

22 September 2020





About this Primer

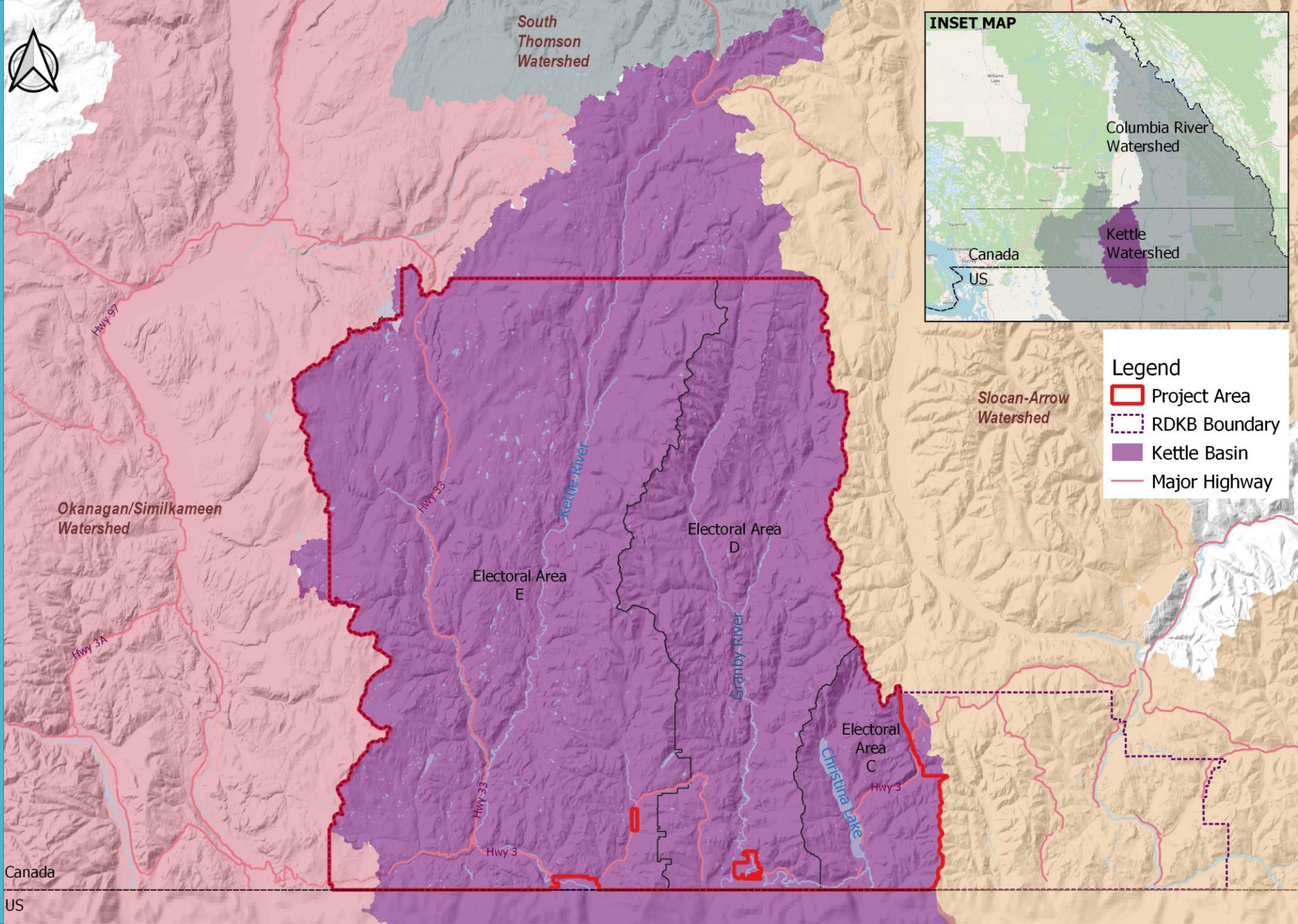
This primer provides basic background information to inform the public and project stakeholders and governments about the Boundary Region Flood and Geohazard Risk Assessment.

Project Objectives

1. Outline areas that are susceptible to flood and geohazards.
2. Identify assets that are valuable to the community and that are in the way of the hazards.
3. Engage with a range of community stakeholders and build community resilience.
4. Assess relative risk to support the development of detailed flood maps and emergency management plans.



Project
Area
(prelim. figure)
7005 km²



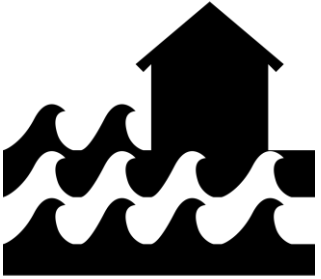
What Are Natural Hazards?

Natural hazards are phenomena that can cause harm to humans or the environment (e.g., earthquakes, floods, wildfires). They can vary in size, timing, and consequences.



Natural hazards also provide *positive* benefits. Through landscape regeneration, for example, floods can support fish and fish habitat, as well as our culture and economy more broadly.

Natural Hazards Explored in this Project



A **flood** occurs when water reaches higher than normal levels and inundates land that is usually dry. Flood types include pluvial, riverine*, and channel blockage (e.g., debris or ice jam).



Geohazards range from hillslope failures, such as rock falls, debris flows* that entrain material, to fluvial* based processes characterized by erosion and avulsion events.



*These specific hazard types will be explored in this project.

What is Natural Hazard Risk?

Risk considers what is in the way of the hazard (**exposure**), as well as how susceptible those exposed elements are (**vulnerability**).

Risk can be represented with the area of a triangle, where the three sides represent hazard, exposure, and vulnerability. If any of these increase, then the risk also increases.



Source: Adapted from United Nations Office for Disaster Risk Reduction (UNDRR)

What is a Risk Assessment?

A risk assessment analyzes the potential likelihood of hazard events and their consequences to people, assets, and the environment.

Results may be shown using a variety of tools including matrices and maps.

Qualitative data gathering is a key aspect of risk assessments. Gathering data from locals is key to understanding the full picture of risk.



Source: Ebbwater

Project Risk Assessment Framework

The Sendai Framework for Disaster Risk Reduction is a global blueprint to guide governments around the world.

Sendai is currently being integrated into BC's modernized *Emergency Management Act*.

Sendai will be used to frame the RDKB's flood and geohazard management initiatives. This project focusses on Sendai Priority 1.

PRIORITY 1
UNDERSTANDING
DISASTER RISK

PRIORITY 2
STRENGTHENING DISASTER
RISK GOVERNANCE TO MANAGE DISASTER
RISK

PRIORITY 3
INVESTING IN DISASTER RISK
REDUCTION FOR RESILIENCE

PRIORITY 4
ENHANCING PREPAREDNESS
FOR RESPONSE, AND TO "BUILD BACK
BETTER" IN RECOVERY, REHABILITATION
AND RECONSTRUCTION

Source: United Nations Office for Disaster Risk Reduction (UNDRR)

Timeline of Activities

