Landslides Worksheet 2

Chilcotin River Landslide

In July 2024, a major landslide near Farwell Canyon blocked the Chilcotin River in British Columbia, creating a large natural dam that trapped water and led to flooding risks downstream. When the water began to breach the dam in early August, rapid flows and debris surged downstream, raising water levels significantly. This created potential dangers for residents along the Chilcotin and Fraser Rivers, leading to evacuation orders and heightened concerns for salmon migration in the area. Authorities have been monitoring the area around the clock with drones and satellite imagery and working with local Indigenous groups to assess and manage the risks. You will be using photographic data collected via helicopters and drones to help you gather information about the slide and determine whether people can be more prepared for events like these in the future.

Link to database: <https://chilcotin-river-landslide-2024-bcgov03.hub.arcgis.com/>

**Breaching the dam**

1. Using the time lapse footage from the link, determine which day the water breached the dam caused by the landslide. What were the immediate effects on the upstream river channel following the breach?

**The Landslide**

Using the 3D panorama footage, determine:

1. The nature of the landslide.
2. What was the type of material which failed?
3. The type of movement?
4. Classify the landslide

**Leading up to the disaster**

1. Determine the causes and triggers of the slide.
2. List 5-10 potential causes (internal or external) which could have contributed to the mass movement
3. What could be a likely trigger for this event?

**Considering impacts on local communities**

1. Were there any communities that had to be evacuated following the slide. Why?

1. In the days following landslides such as this one, are there protection methods which could potentially be utilized to decrease the hazards for communities living downstream?
2. Is it worth preventing landslides like these in the Chilcotin area? If so, what techniques could be utilized in the area?