



Date: 04/09/2019

MEMORANDUM

To: Chair and Directors, Committee of the Whole
And To: John MacLean, Chief Administrative Officer
From: Havan Surat, Manager of Development Services
Date of Meeting: Committee of the Whole_Sep12_2019
File: 6410-04
Subject: Landslides in CRD

Background:

During the March 2018 Cariboo Regional District (CRD) Board meeting, the Board passed the following resolution:

“That a discussion regarding slide area map designation impacts on residents be referred to a future meeting of the Committee of Whole.”

Landslides in the CRD

Currently, there are two landslide areas identified in the northern and central parts of the regional district. They have been registered as development permit areas in their respective Official Community Plans (OCP). Designation of development permits in OCPs is a good tool for local governments in preventing the built environment from any hazardous conditions.

Section 490 of the *Local Government Act* (LGA) provides authority for local governments to ensure development permit areas are scrutinized before approving any building permit. The land under development permit areas cannot be subdivided or proposed for any building activity without completing a thorough engineering site study. A development permit does not vary the use or density of the land that is allowed in the zoning bylaw but only specifies conditions for future construction activities in the parcel.

Land Slide Hazards

There are two types of landslides depicted in the regional district:

Landslide, Active or Recent (High hazard): No construction will be permitted unless supported by an acceptable geotechnical assessment.

Landslide, Ancient (Moderate hazard): All residential construction in this area will require a geotechnical assessment to confirm the site is not affected by any indicators of an active landslide and documenting that the owners are aware of the existence of the landslide area and understand the risks. All commercial, industrial or institutional development will require a full geotechnical assessment to determine if the site is safe for the use intended.

North Cariboo Landslide Area

The North Cariboo region has high risk or active landslides identified around the Quesnel fringe areas.

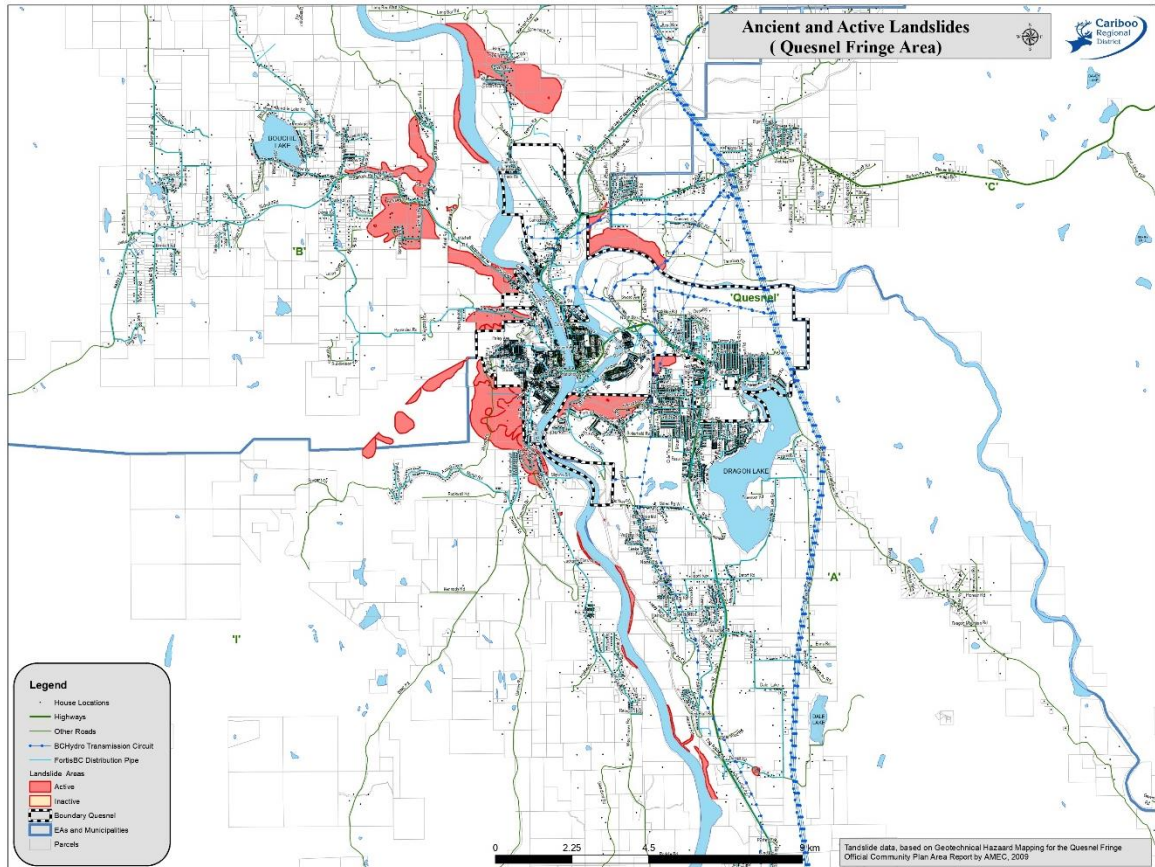


Figure-1: Active landslides are shown in red colour in the Quesnel fringe areas

There have been no known ancient or moderate risk landslides present in the fringe areas of Quesnel, and all the identified landslides are active/high hazard in nature. According to GIS software calculation, there are approximately 108 parcels that are completely within these active landslide areas and 242 parcels are partially covered.

A Geotechnical Hazard Development Permit Area was created under section 919 of the *LGA*, for the purpose of protecting development from hazardous conditions. The above map has been attached as Schedule D in the Quesnel Fringe OCP. A Development Permit Area has been established as a result of a geotechnical assessment carried out by AMEC Earth and Environmental and detailed in a report issued in 2009 entitled "Geotechnical Hazard Mapping Quesnel Fringe Area Cariboo Regional District British Columbia".

Central Cariboo Landslide Area

Ancient and active landslides were identified in the fringe areas around Williams Lake where the majority of slide areas are ancient or inactive.

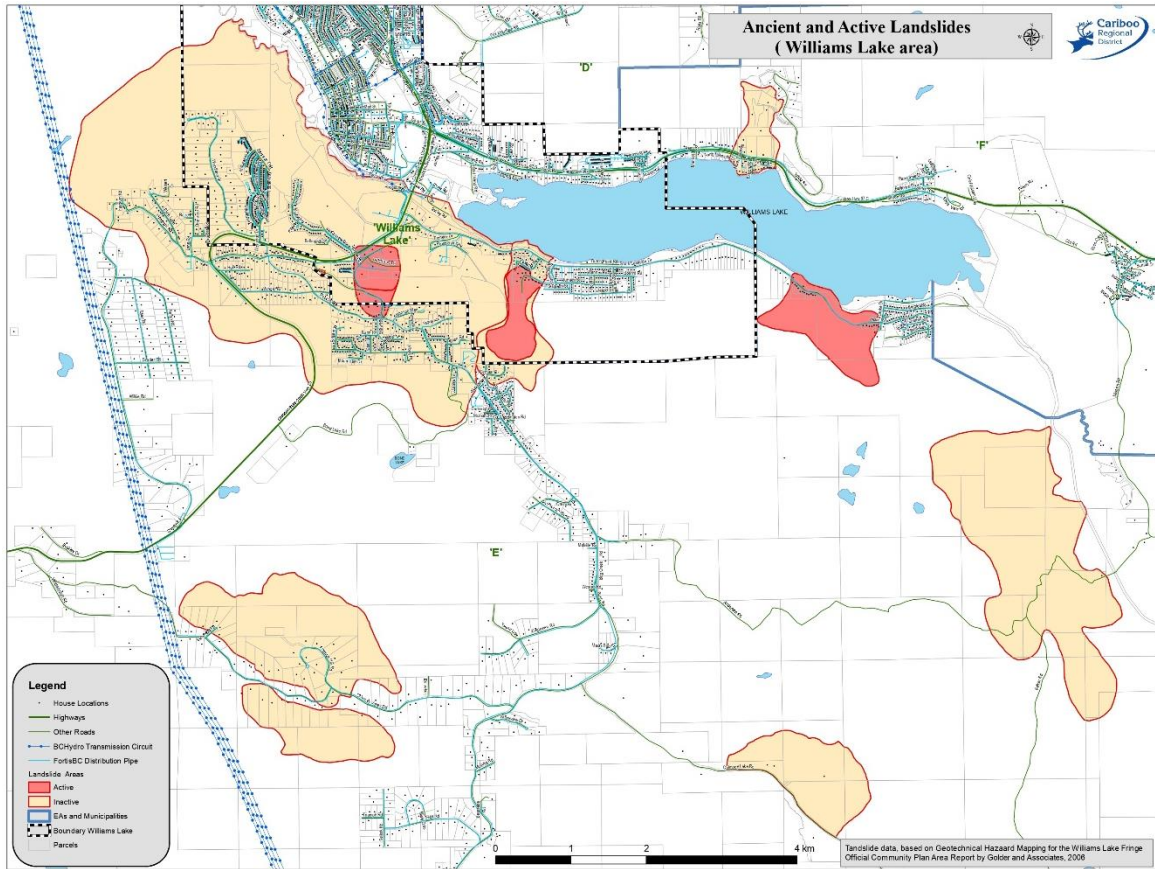


Figure-2: Active and ancient landslides are shown in red and brown colours in the Williams Lake fringe areas

There are approximately 564 parcels that are completely within and 183 parcels partially within both active and inactive/ancient landslide areas around the city limits.

The Geotechnical Hazards Development Permit Area has been established as a result of a geotechnical assessment carried out by Golder & Associates and detailed in a report issued in 2006 entitled “*Geotechnical Hazard Mapping for the Williams Lake Fringe Area Official Community Plan*”. The moderate risk areas in the Geotechnical Hazard Development Permit Area include the land subjected to steep slopes, rolling rock hazard and/or ancient or inactive landslides. The geotechnical assessment would normally determine the safe building setback from the escarpment crest and will review the proposed use of the property with respect to continued slope stability. This assessment includes consideration of site grading and proposed land use impact on water infiltration into the ground near the escarpment which can decrease the stability of the escarpment and potentially trigger landslides. The assessment should include not only the development property itself, but also current or foreseeable future uses of the lands and risks to persons and property downslope of the development.

Impacts on Property Owners

The property owner is required to submit a geotechnical report to obtain a building permit. Planning staff have developed a guide that explains the report content and CRD requirements for the public to be aware of any future construction activities. The Geotechnical Report would be registered on title under a priority agreement. When a full geotechnical assessment is completed, a covenant will be registered on the title, identifying the hazard and remedial

requirements as specified in the geotechnical or engineering reports for the benefit and safe use of future owners.

The property owners might get financial relief from insurance companies if the proposed construction follows the recommendations specified in the geotechnical report.

The main purpose of creating these development permit areas is to safeguard the public from any hazardous conditions. Designating permit areas in official community plans is not to impose any restrictions or cost implications, but only attempts to provide public safety awareness to the present and future property owners.

Attachments:

1. Geotechnical_Reports_-_Guidelines_for_Preparation.pdf
2. WL_Geotechnical_Hazard_Development_Permit_Development_Services_Guide.pdf