

Flood Risk Mapping

Using LIDAR imagery to help predict Yukon community flood risks

CONTEXT

Yukon communities are likely to encounter more frequent flooding into the future as a result of a changing climate. Government of Yukon's Emergency Measures Organization recognizes the need to better identify potential floodable areas. This project will provide clear data about where and how communities may be at risk of flooding, so that Yukoners can protect their property and prepare for emergency situations. The results will enable community leaders to make more informed decisions related to building structures, town designs and development planning.

Photo Credit: Government of Yukon



OBJECTIVE

The flood risk mapping project will acquire detailed elevation data, especially around lakes and rivers, to increase understanding and prediction capabilities of high risk flood areas in Yukon communities, both now and in the future.

APPROACH

A LIDAR (light detection and ranging) imagery survey will capture elevation data in and around 13 Yukon communities in 2014-15. Presently, Yukon has limited elevation data for communities bordering lakes or rivers. Areas for targeted research will be chosen based on community members' traditional and data knowledge of historical flooding threats gathered in 2013. Elevation data will feed into mapping or modeling programs that will identify flood prone areas.

EXPECTED RESULTS

Information acquired in this project will allow individuals and community representatives to prepare for potential flooding situations. It will increase the ability of Yukon government to understand and predict where likely flooding areas exist in Yukon communities and when they are likely to flood.

Results of this work will allow community members to become more prepared for potential floods. It will also help decision makers prioritize areas where land-use planning and infrastructure (ex: buildings and bridges) development may need to be modified and better prepare for emergency situations.

Significance

Flood risk mapping will provide a clearer understanding of flood prone areas to community members and leaders so they can protect property and prepare for emergency situations.

Supporters

- Northern Climate Exchange, Yukon Research Centre, Yukon College
- Geomatics, Highways and Public Works, Government of Yukon
- Vuntut Gwitchin First Nation
- City of Whitehorse
- Aboriginal Affairs and Northern Development Canada

FOR MORE INFO

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Pan-Territorial Information Notes
MAR.2013.YT.01
ISSN 2291-3904