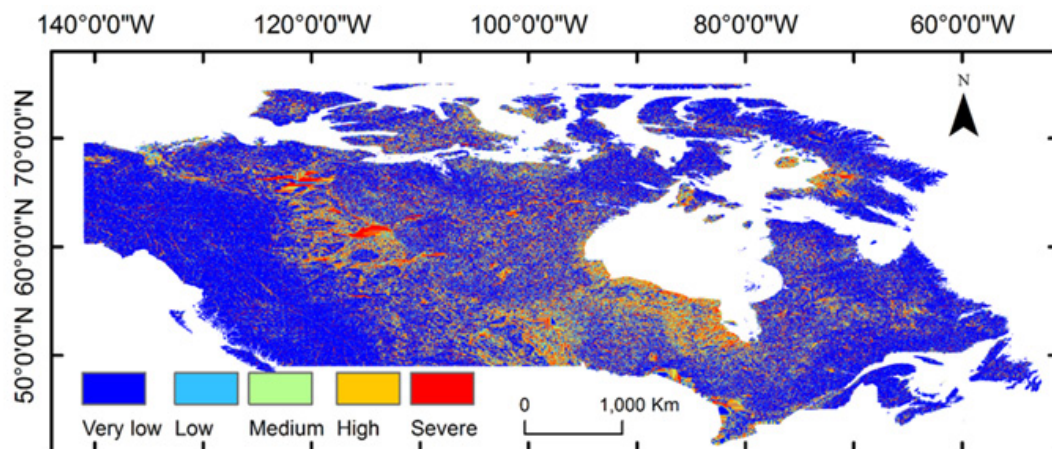


## Interactive tool for better flood risk assessment in Canada

Web-based resource helps planners, professionals and households better understand and address flood risks



Flood hazard map for Canada, classified into five hazard levels.

A new interactive tool, now in development by the FloodNet Research Team, will soon be available to help city planners, professionals and households better assess flood risk—nationally and locally.

Currently, Canada has no comprehensive flood hazard and flood risk maps. To fill this gap, the FloodNet Research Team is creating a web-based tool that provides flood risk information for the entire country. When completed, water resources professionals, municipal planners, businesses and households will have a new resource to increase flood awareness and better manage risk.

As Canada's population grows, urban development is increasing, with some infrastructure expanding on flood-prone areas. Despite the fact that flood risk areas are known, the lack of social memory of recent disasters results in continued development in high-risk areas. Recent serious flood incidents in Toronto and Calgary are important examples of the effect that natural disasters can have on new infrastructure that has not accounted for flood risks.

Social memory—community recollection of recent disasters—helps develop capacity and the ability to recover from flooding disasters; however, evidence suggests that the memory of floods is lost where engineering flood solutions, such as dykes, and bypasses, are well developed. Publicly available planning tools, such as online maps and databases make flood risk information accessible to everybody, which helps preserve the memory of recent disasters, improve awareness of flood incidents and contributes to effective

infrastructure planning. Better social memory of flooding can help discourage dwelling and investment in high flood risk areas.

FloodNet is developing an online flood risk assessment tool to equip planners and the public with practical information that is expected to increase understanding of flood risks and enhance risk management decisions.

The FloodNet tool is based on validated large-scale scale risk maps that can present information at national and local scales. Canada-wide flood information shows possible flood inundation and risk to help prioritize areas that need risk mitigation. Local-scale flood information helps pinpoint possible flooded parcels, probability of flooding, and expected damage to life and property. This information is presented in an interactive web-based tool that communicates flood hazard and risk anywhere in Canada. Users merely have to enter information about their location, and the tool estimates flood frequency and associated financial risks. The tool will be extended to address climate change concerns, projecting flood frequency and projected flood insurance costs under various economic scenarios.

The tool will provide strategic planning information to:

- **Real estate professionals and developers**, to assess flood risk and present information to clients.
- **Insurance professionals**, to inform clients of flood risks.
- **Government agencies**, to support flood risk communication strategies and inform policies to encourage citizens to address realities of flood risk. The tool helps agencies reduce the public costs of damage assistance payouts and better manage costs for infrastructure investment.
- **Households**, to better assess household risks, and to plan for risk management through insurance or other mitigation measures