

Grand Forks-Flooding

The Issue

River flows in the Kettle and Granby rivers in May 2018 exceeded 200 year flood levels where the snowpack was ~240% of the normal amounts in late spring. The flooding caused over \$38 million in damage to agricultural operators, residential neighbourhoods, commercial areas, and industrial operations. With the affected area incorporating the entire Boundary country, about 1500 buildings were evacuated across the Boundary and more than 500 were damaged. Water levels were so high that communities as far as Christina Lake experienced damage to buildings and caused a drinking water quality advisory.

Infrastructure and utilities were severely affected through washouts, inundation, or loss of access causing waste water collection and electrical distribution systems to fail. The Emergency Operations Center ordered the evacuation of two residential neighbourhoods in Grand Forks and emergency responders from across the region performed thirty-eight rescues via boat and helicopter. In addition, two of three supermarkets shut down for one week, making food availability a concern. Agricultural businesses across the region sustained millions of dollars in water-related losses and many other businesses remain closed as they continue to rebuild.

With all the climate-related anticipated impacts that lead to rapid snowmelt and more frequent rain or snow events, the region can expect further frequent and intense flooding. Communities will need to prepare, plan and acquire resources for long-term resilience to live with flooding events.

The Action

Recognizing the severity of the impact for community life, the Grand Forks response team started with a hydrological assessment of the river to characterize how flow has changed and to identify most critical areas for attention in order to make evidence-based decisions. Moving forward Grand Forks will implement a combination of structural and natural approaches by making room for the rivers when possible and otherwise implementing better protection. Specific activities include bank protection, raising a roadway to act as a berm, restoration of the floodplain – which includes purchasing 60 properties, and dyking.

The city of Grand Forks announced plans to convert one residential area back into a green flood plain because of the persistent risk. The restored floodway will bring additional benefits associated with improved fish habitat and open space land use but the floodplain will displace about one hundred residents. The recovery plan will cost \$60 million from 2018-2022 and is dependent on funding from senior level government.



North Ruckle May 2018. Photo: Grand Forks



North Ruckle Alley, May 2018. Photo: Grand Forks



68th Avenue & 2nd Street, Grand Forks, May 2018. Photo: Grand Forks