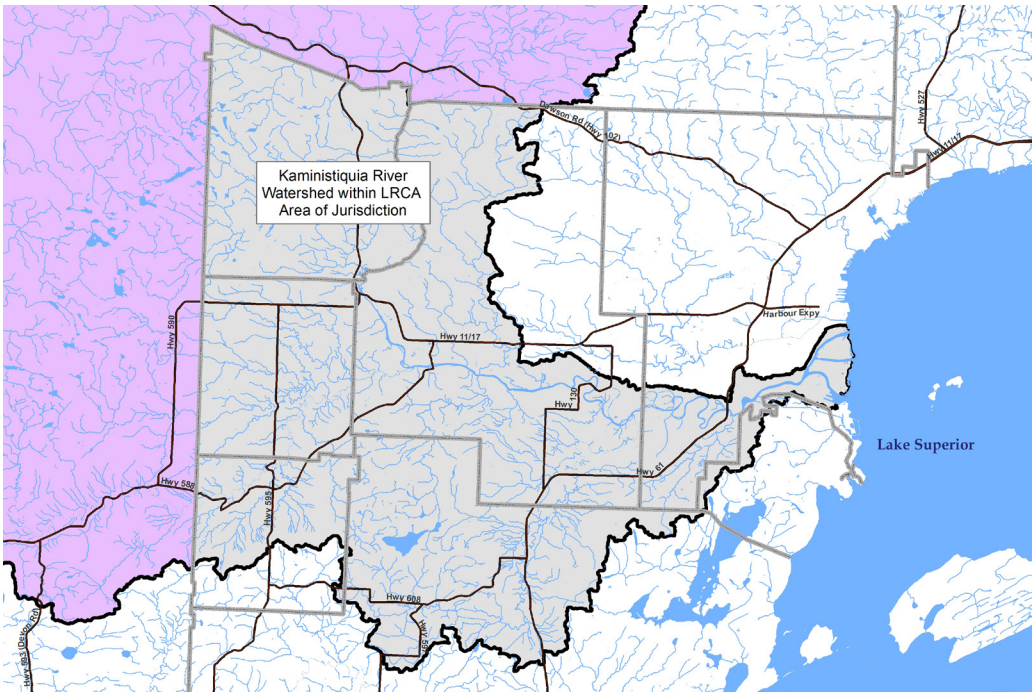
LAKEHEAD REGION
CONSERVATION AUTHORITY

KAMINISTIQUIA RIVER WATERSHED

February 2020



The Kaministiquia River watershed is the largest in the Thunder Bay district, covering approximately 7,800 square kilometres. The watershed originates north of the City of Thunder Bay limits, at Dog Lake, and flows in a south-easterly direction. The Kaministiquia River watershed includes the main branch of the river, as well as several tributaries including the Shebandowan, Whitefish and Slate Rivers and Sunshine, Mosquito, Corbett, Oliver and Brule Creeks. The Upper Kaministiquia River subwatershed above Kakabeka Falls is approximately 6,763 square kilometres, and the Lower Kaministiquia River subwatershed below Kakabeka Falls is approximately 1,033 square kilometres. The Lower Kaministiquia River is approximately 95 kilometres long and its channel width is typically 100 to 130 metres. As it enters Lake Superior, the river splits into three channels forming a delta composed of the Mission, McKellar and Kaministiquia Rivers.

Watershed Size	7,789 square kilometres
Length of River	320 kilometres
Average Channel Slope	5.2%
Average Channel Width (Lower)	100 - 130 metres
Thermal Regime	Cold Water
Streamflow Gauge/ Precipitation Gauge Location (1923 to 1994)	02AB010: Kakabeka Falls Powerhouse
Streamflow Gauge/ Precipitation Gauge Location (2006 to present)	02AB025: West Fort William (Fort William Historical Park)
Flow at Streamflow Gauge Location during 100 Year Storm	02AB025: 1,194 cubic metres per second
Highest Recorded Instantaneous Flow at Gauge Site	02AB025: June 2008 approximately 914 cubic metres per second

Kaministiquia River

Floodplain mapping studies were completed in 1979 and updated in 2020 on the lower Kaministiquia River to determine the Regulated Floodplain. The floodplain is considered to be the watercourse area or area next to a watercourse that is under water during a flooding event. On the Kaministiquia River, the 100-Year Storm is the magnitude of storm that determines the floodplain for regulatory purposes. Maps have been prepared and are available from the Conservation Authority that detail the 100-Year floodplain and flood elevation along the lower Kaministiquia River.

The LRCA monitors local conditions and administers the Flood Warning System for the City of Thunder Bay and all rural Member Municipalities of the LRCA. Flood Warning Messages are issued during flood events.

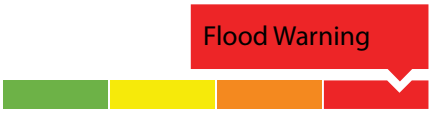
FLOOD MESSAGING TERMINOLOGY:

NORMAL: Conditions are within NORMAL limits. No flooding is expected.

WATERSHED CONDITIONS STATEMENT- WATER SAFETY: High flows, unsafe banks, melting ice or other factors could be dangerous for recreational users such as anglers, canoeists, hikers, children, pets, etc. Flooding is not expected.

WATERSHED CONDITIONS STATEMENT- FLOOD OUTLOOK: Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions.

FLOOD WATCH: Indicates that there is the potential for flooding within specific watercourses and municipalities.



FLOOD WARNING: Indicates that flooding is imminent or occurring within specific watercourses and municipalities.

Residents living near floodplains should pay attention to local flooding conditions in their area and be on alert for flood messaging. Residents should also prepare their individual flood emergency plans to be prepared in the event of a flood.

During flooding events some roads and water crossings will be overtopped. Residents should never drive through a flooded section of road as the condition of the road and depth of flooding is not apparent and can be dangerous.

Definitions:

Regulated Floodplain: The main stream/river channel plus the area of land adjacent to the river or stream that is flooded (i.e. under water). The regulated floodplain on the Kaministiquia River is calculated using the 100-Year Storm. The regulated floodplain is calculated using the greater of the Regional Storm or the 100-Year Storm.

Regional Storm: Storm that occurred in Timmins, Ontario in 1961 in which 193 millimetres of rain fell in 12 hours. In most cases the Regional Storm exceeds the 100-year storm.

100-Year Storm: Storm that on average should occur every 100 years; however, has a 1% chance of occurring or being exceeded in any given year.

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