

# Grand River Conservation Authority

**Report number:** GM-10-24-90

**Date:** October 25, 2024

**To:** Members of the Grand River Conservation Authority

**Subject:** Grand River Conservation Authority Ice Management Plan

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## **Recommendation:**

THAT the Ice Management Plan be approved and implemented.

## **Summary:**

Not Applicable

## **Report:**

Under the *Conservation Authorities Act* and *Ontario Regulation 686/21*, the Grand River Conservation Authority (GRCA) is required to have an Ice Management Plan. Historic development has occurred in floodplains in Ontario and in the Grand River watershed locally. In some locations throughout the Grand River watershed, this historical development may be at risk of flooding from ice jam induced or enhanced floods.

Ice jams are a naturally occurring phenomena in rivers in cold climates. Many factors affect ice formation, ice accumulation and ice break. All these factors influence the risk of ice jams along with the weather conditions at the time ice breaks up. While the risk of ice jams can be inferred or anticipated, ice jams cannot be predicted or forecast. The main focus if ice management in the Grand River watershed is awareness of potential for ice jams, anticipating when break up may occur and monitoring conditions during ice breakup. GRCA Ice Management Plan includes a discussion of approaches used to monitor ice conditions, anticipate the potential for ice jams, mitigate ice jam potential where possible and monitor ice conditions during the breakup process.

As part of Ice management plan, ice formation processes in the Grand River Watershed have been discussed, historical formative floodings as a result of ice jams have been catalogued and high-level approaches for prediction of the potential of ice jams have been presented and discussed based on available climate data and empirical approaches developed in the watershed over time.

The GRCA Ice Management Plan is a compilation of current knowledge and experience and is intended to be a living documents, updated on a five-year basis as knowledge and experience with ice evolves.

## **Financial Implications:**

The funds required to be allocated for tasks related to ice management in the watershed including upgrading current monitoring equipment as well as installation of new sensors are estimated to be around \$140,000 over the next three years which can be funded through the Land Sales Reserve.

## **Other Department Considerations:**

Not applicable

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## **Approved by:**

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