

# Staff Report

## Flood Hazard Identification and Mapping Program

### Project Completion Summary

**Date** September 19, 2024  
**To** CVCA Board of Directors  
**CC**  
**Prepared by** Andrew McIntyre, CVCA Regulations Officer  
**Subject** CVCA FHIMP projects and regulatory floodplain mapping

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In late 2022, CVCA received approval for 2 floodplain mapping project applications under the FHIMP (Flood Hazard Identification and Mapping Program) funding stream. Eligible work was to be completed from March 2023 to March 2024. CVCA employed EXP Services Inc. to complete all technical components of the projects. The majority of the technical work was completed during the FHIMP eligibility period. Review and revisions caused some additional delays. Final revisions to the models, reports and mapping were received September 12, 2024.

To produce floodplain mapping, it is necessary to characterize the hydrology and hydraulics of the study areas. This has been done in accordance with Federal floodplain mapping standards prescribed by Natural Resources Canada, administrators of the FHIMP.

The hydrology and hydraulics reports for each study can be viewed by accessing the following links:

#### Hydrology Reports

[ON22-070 \(North\)](#)

[ON22-070 \(South\)](#)

#### Hydraulics Reports

[ON22-070 \(North\)](#)

[ON22-071 \(South\)](#)

#### Floodplain Mapping

Hydrology and hydraulic modelling is used to generate floodplain mapping.

The combined regulatory floodplain mapping for both projects can be viewed by accessing the following link:

<https://camaps.maps.arcgis.com/apps/mapviewer/index.html?webmap=23e91d0d136d47d580e25a83563fd856>

Using the map launched by clicking the above link, you can navigate to areas of interest similar to Google Maps. The magnifying glass icon in the lower right corner can be used to search addresses.

The following table summarizes flood elevations on larger recreational waterbodies. Where previous floodplain studies exist, the new elevations are compared to the old elevations.

New and previous regulatory flood elevations by waterbody

<b>Waterbody</b>	<b>New regulatory flood elevation (metres CGVD2013)</b>	<b>CGVD28 to CGVD2013 Datum Conversion (m)</b>	<b>Old regulatory flood elevation (metres CGVD2013)</b>	<b>Change (m)</b>
Paudash Lake	342.37	0.32	342.48	- 0.11
Chandos Lake	314.17	0.33	313.97 (interim study)	+ 0.20
Tangamong Lake	272.47 (us.); 271.99 (ds.)			
Whetstone Lake	272.00 (us.); 271.95 (ds.)			
Mud Turtle Lake	254.09 (us.); 252.86 (ds.)			
Cordova Lake	217.46	0.34	217.24	+ 0.22
Kashabog Lake	262.58	0.34	262.36	+ 0.22
Round Lake	202.04	0.35	199.95	+ 2.09
Belmont Lake	188.44	0.35	188.45	- 0.01
Crowe Lake	183.50	0.35	183.53	- 0.03

Note: The study has established flood elevations for river sections between lakes. This includes various stretches of the main channel of the Crowe River, North River, and Beaver Creek. River stretches are mapped with different flood elevations at each cross section used in the hydraulic modelling – and therefore values are not uniform. Most of the river sections, now mapped, previously were not – with the exception being some sections of the Crowe River and Beaver Creek.

Suggested Motion(s)

**THAT the hydrology and hydraulics reports, and resulting floodplain mapping for ON22-070 (North) floodplain mapping study be received and CVCA staff be directed to use the flood study information for regulatory purposes, including updating the flood elevations in the CVCA Watershed Planning and Regulations Policy Manual.**

**THAT the hydrology and hydraulics reports, and resulting floodplain mapping for ON22-071 (South) floodplain mapping study be received and CVCA staff be directed to use the flood study information for regulatory purposes, including updating the flood elevations in the CVCA Watershed Planning and Regulations Policy Manual.**