



Safe Road Access Summary

Mississippi Valley Conservation Authority Comments on Safe Road Access

Provided to Mississippi Lakes Association by Matt Craig, Manager of Planning and Regulations
13 June 2023

Background:

In Ontario, municipalities and Conservation Authorities are responsible for implementing policies and/or regulations for managing development in flood risk areas (floodplains). This includes the requirement to implement floodproofing standards that provide for safe access for vehicles and pedestrians during major flood events.

The requirement for safe access within floodplains comes from Provincial planning policies under the *Planning Act*. The **Provincial Policy Statement (PPS, 2020)** provides policy direction on matters of provincial interest and sets the policy for regulating the development and use of land.

- Section 3.1.2 of the PPS (2020) requires that development and site alteration shall not be permitted within areas that would not have safe access for people and vehicles during a flood.
- Section 3.1.6 provides that where the **two zone** concept for flood plains is applied, development and site alteration may be permitted in the flood fringe, subject to appropriate floodproofing to the flooding hazard elevation or another flooding hazard standard approved by the Minister of Natural Resources and Forestry.
Note: Mississippi Lake is managed as a two-zone floodplain area.
- Section 3.1.7 provides that, where development is permitted in a floodplain (3.1.6 - two zone areas), it must be demonstrated that the site has safe access in accordance with *access standards*.

PPS (2020) Definitions:

access standards: means methods or procedures to ensure safe vehicular and pedestrian movement, and access for the maintenance and repair of protection works, during times of flooding hazards, erosion hazards and/or other water-related hazards.

two-zone concept: means an approach to flood plain management where the flood plain is differentiated in two parts: the floodway and the flood fringe.

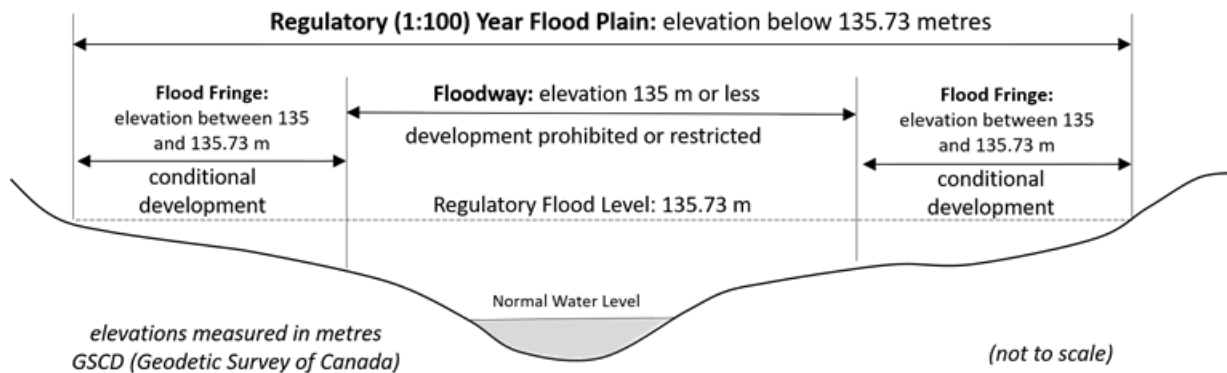
floodway: for river, stream and small inland lake systems, means the portion of the floodplain where development and site alteration would cause a danger to public health and safety or property damage.

- Where the one zone concept is applied, the floodway is the entire contiguous flood plain.
- Where the two zone concept is applied, the floodway is the contiguous inner portion of the flood plain, representing that area required for the safe passage of flood flow and/or that area where

flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. Where the two zone concept applies, the outer portion of the flood plain is called the flood fringe.

flood fringe: for river, stream and small inland lake systems, means the outer portion of the flood plain between the floodway and the flooding hazard limit. Depths and velocities of flooding are generally less severe in the flood fringe than those experienced in the floodway.

Two-Zone Concept – Mississippi Lake



Safe Access Technical Criteria:

The technical criteria for defining safe access comes from a Provincial Technical Guideline developed to support the PPS, titled: **Technical Guide – River & Stream Systems: Flooding Hazard Limit (MNRF, 2002)**. Based on this technical guideline (and former iterations of the guideline), MVCA regulations policies define safe access as follows:

Safe Access: *Vehicular and pedestrian access routes are considered safe if the depth of flooding, at the regulatory (1:100 year) flood level, along the full length of the travelled surface does not exceed 0.3 metres and the flood velocity does not exceed 1.0 metres/second (MVCA Regulations Policies)*

Responses to Mississippi Lakes Association questions 16 May 2023:

1. **MLA:** *Is an unsafe road defined as > 30 cm (12") of flood water over a road based on the 1:100 year flood event?*

MVCA: The floodplain around Mississippi Lake is managed as a Two-Zone floodplain area. Provincial Policy requires that where development is permitted in the floodplain it must be demonstrated that the site has safe access in accordance with access standards. (see policy details above)

Vehicular and pedestrian access routes are considered safe if the depth of flooding, at the regulatory (1:100 year) flood level, along the full length of the travelled surface does not exceed 0.3 metres and the flood velocity does not exceed 1.0 metres/second. Around Mississippi Lake, access is deemed unsafe where there would be greater than 0.3m depth of flooding over the road during a 1:100 year flood event.

2. **MLA:** *Please clarify how MVCA determines whether a road access is unsafe during a municipal building permit application process?*

MVCA: For review of planning and regulations applications in flood risk areas around Mississippi Lake, MVCA uses the published floodplain map on their website to identify sections of road that present unsafe access (<https://mvc.on.ca/development-permits/flood-prone-areas-and-map/mississippi-lake/>). This

mapping was last updated in 2015, as approved by the Board of Directors. It is acknowledged that annual road maintenance may result in different elevations than mapped. It is the responsibility of the proponent to demonstrate any changes in grades. Road associations should contact MVCA regarding any proposed road maintenance.

3. **MLA:** *The published floodplain map shows three contour lines of reference to define the flood 'at risk' areas. Can you please clarify them?*

MVCA: The floodplain mapping shows the following:

- Regulatory (1:100 Year) Floodplain (red line on maps): all lands below an elevation of 135.73 m.
- Floodway (orange line): all lands below 135.0 m elevation.
- Flood fringe: all lands between Floodway (135.0 m contour - orange line) and Regulatory Floodplain (135.73 m contour - red line).
- Regulation Limit (yellow line): lands that fall under MVCA's Regulation - based on a setback from flood hazard, erosion hazard and/or regulated wetland. An MVCA permit is required for development within the Regulation Limit.

4. **MLA:** *Can a homeowner request a review of a MVCA determination of an 'unsafe road'?*

MVCA: A homeowner may request a review of an "unsafe access" determination if there has been road work completed since 2015 and a credible survey shows compliance with the regulation (elevation greater than 135.43 m, resulting in less than 0.3 m depth of flooding during 1:100 year flood event).

5. **MLA:** *Which standards and regulations is MVCA using in their determination of 'unsafe roads'?*

MVCA: Conservation Authorities' technical floodplain standards (two-zone analysis, floodproofing, safe access, etc.) are based on the **Technical Guide - River & Stream Systems: Flooding Hazard Limit (2002)** located at <https://www.ontario.ca/document/independent-review-2019-flood-events-ontario/appendix-list-documents-reviewed>