



Floodplain Mapping Frequently Asked Questions

1. Why is the South Castor River Floodplain Mapping Study important?

The South Castor River Floodplain Mapping study is a joint initiative with the City of Ottawa, and is funded, in part, by the Government of Canada and the Province of Ontario through the Flood Hazard Identification Mapping Program (FHIMP). This study updates mapping completed in 1992, as part of Three Branches of Castor River Floodplain Mapping Study.

2. What is a floodplain?

A floodplain is an area of land adjacent to a river, stream, or other watercourse that is susceptible to flooding when water levels rise and exceed the capacity of the river channel. Floodplains are typically dry under normal conditions but become inundated during periods of high water, providing space for excess water to spread beyond the riverbanks.

Flooding that occurs when water levels in rivers and streams rise and overflow their banks is referred to as riverine flooding. This type of flooding is commonly caused by increased river flows resulting from heavy rainfall, snowmelt, or a combination of both.

3. What is regulatory floodplain mapping?

The regulatory floodplain is the area of land that would be inundated during a specific flood event, as determined by provincial standards established by the Ontario Ministry of Natural Resources (MNR).

Within SNC's jurisdiction, the regulatory floodplain is determined using the 1 in 100 year flood.

Regulatory floodplain mapping involves computer modelling to estimate flood levels and the extent of inundation. The resulting floodplain maps identify the areas expected to be inundated during the regulatory flood event. These maps provide essential information to support municipal land use planning, development permitting, emergency preparedness, and flood risk management.

4. What is the 1 in 100 year flood?

A 1-in-100 year flood, also known as a 100-year flood, is a flood event that has a 1% chance of occurring or being exceeded in any given year at a specific location. This does not mean that such a flood occurs only once every 100 years. A 100-year flood can occur in consecutive years, as the probability of experiencing a flood of this magnitude remains the same each year.





5. How are the boundaries of the regulatory floodplain determined?

Floodplain mapping studies are technical assessments that use watershed scale information to identify areas susceptible to flooding and to establish the boundaries of the regulatory floodplain.

SNC undertakes floodplain mapping studies with the support of qualified engineers and technical specialists, following standards and guidelines established by the MNR.

These studies use detailed information about watershed characteristics, including topography, land use, precipitation, streamflow, and surveys of watercourses and hydraulic structures, such as bridges and culverts.

This information is used to develop models that simulate how water moves through a watershed during flood events. The resulting flood elevations and inundation extents are used to map the regulatory floodplain boundaries.

After regulatory floodplain maps are prepared, the work undergoes several reviews, including:

- Internal review
- External review (third-party)
- Federal review, under the FHIMP program

6. Can regulatory floodplain boundaries change?

Yes. As watershed characteristics change (topography, infrastructure, land use, weather, stream flows), and advances in technology and data (ie. LiDAR) are made available, new studies may result in changes to the floodplain. These changes could result in the removal or addition of some lands within the regulated floodplain.

7. Why does SNC develop regulatory floodplain maps?

The *Conservation Authorities Act* provides the legal basis for SNC's mandate to study watersheds and deliver programs and services that prevent, eliminate, or reduce the risk to life and property from natural hazards including flood and erosion.

8. What activities in a floodplain need approval?

Development within a floodplain may be permitted under certain circumstances, depending on the location, nature of the proposed activity, and associated flood risks. In Ontario, development in floodplains is governed by provincial legislation and policies, including the *Provincial Planning Statement (2024)*, the *Conservation Authorities Act*, and the *Building Code Act*.

Under the *Conservation Authorities Act* and Ontario Regulation 41/24, certain development activities within regulated areas require permission from SNC.



These activities include:

- **Construction:** Building, reconstructing, or placing a new building or structure.
- **Alterations to existing structures:** Changes that increase the size of a building, alter its use or potential use, or increase the number of dwelling units.
- **Site grading:** Activities that change the existing ground elevation or topography.
- **Placement or removal of materials:** Filling, excavating, dumping, or removing soil or other materials, whether temporarily or permanently.

Being located within a regulated area does not automatically prohibit development. However, certain activities may be restricted or prohibited where natural hazards present unacceptable risks.

If a property is located within an SNC-regulated area, landowners are encouraged to contact SNC before undertaking any development activities to determine whether a permit is required. Some activities may be exempt from permitting requirements, while others require a formal application and technical review.

9. Does the regulation affect farmland?

Nothing in the regulation is intended to limit agricultural practices.

10. Can new regulatory floodplain impact my property value?

Regulatory floodplain mapping does not create a new flood risk, it identifies a risk that already exists based on modern science and topography.

This information helps to safeguard future investments and equity. While regulatory floodplain introduces rules regarding expansion or new builds, these regulations are designed to protect the homeowner's long-term financial equity by:

- **Preventing Loss:** Building regulations ensure that any approved modifications (such as floodproofing or raising mechanical systems) protect the structure from loss.
- **Reducing Liability:** Preventing unsafe development maintains the structural integrity of the home, which protects the owner from devastating out-of-pocket repair costs that could impact the property's value.

11. How are Regulations Maps approved?

SNC is responsible for preparing, reviewing, and maintaining natural hazard regulation maps in accordance with the Conservation Authorities Act and Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits*.

Once hazard mapping is finalized, SNC's regulation maps are prepared. Where significant changes to regulated areas are proposed, SNC is required to notify municipalities, stakeholders, and the public at least 30 days before a public meeting. This provides an opportunity for affected stakeholders to review the proposed regulation maps.

After public consultation is complete, final regulation maps are presented to and approved by SNC's Board of Directors.