Calgary

Engagement Information Booklet

Updating Flood Mapping and Land Use Regulations

for Calgary's River Communities



Introduction: How to use this document for engagement

The City of Calgary is planning updates to flood mapping and associated development regulations, for areas at risk of overland flooding and river-related groundwater flooding. The purpose is to ensure planning decisions reflect current flood risk, recent flood mapping, and significant investments in flood mitigation.

This booklet is intended to provide information to impacted homeowners in two new areas - the **Groundwater Flood Fringe** and **High Hazard Flood Fringe** - about what changes are being proposed and what they mean for you.

Use this document together with the proposed river flood maps, the Annotated **Land Use Bylaw** and the online survey (engage.calgary.ca/rivervalleys), where you can share your feedback on the proposed regulations from September 28 to October 11, 2026. To review the proposed regulations, please refer to the accompanying Annotated Land Use Bylaw available on the engage page.

This document is organized in the following sections:

1. **Background information on river flood mapping:** Understanding flood mapping in Calgary, and what changes are being proposed.
2. **High Hazard Flood Fringe:** Detailed information about this new provincially-designated flood hazard area and proposed development regulations.
3. **Groundwater Flood Fringe:** Detailed information about this new city-designated flood hazard area and proposed development regulations.
4. **Glossary:** Definitions of terms used throughout this document.

Section 1: Understanding Flood Mapping changes in Calgary

Thanks to critical investments in flood mitigation, Calgary's flood damage potential of a 1:100 year flood has been reduced by 70 per cent. Although this means our city is more flood resilient than ever, our river communities remain vulnerable to varying degrees of flood risk.

Flood maps show the extents of flooding in our communities, and are used by The City to establish appropriate land use and building regulations to help keep people and property safe. Flood maps and development regulations have been a part of Calgary's Land Use Bylaw since the 1980s, but as our rivers change and we improve our understanding of flood risk, so does our need for updated maps and regulations.

New flood mapping is available for Calgary, and The City is working to update associated development regulations in the Land Use Bylaw.



Key information



In 2025, the Province released updated flood hazard maps for Calgary's river areas. These maps use a new approach to show different levels of flood risk, including new areas called the High Hazard Flood Fringe and Protected Flood Fringe.



The City has also created new groundwater flood risk maps. These maps show areas where river flooding could cause groundwater to rise and affect basements or foundations, even if water does not flow over the surface of the property.



Together, these updated maps are proposed as a new River Flood Map to replace Calgary's current flood maps in the Land Use Bylaw, which are now outdated.



New land use rules are also being proposed to reflect the updated maps, current flood risk, and the flood protection investments made since 2013.

The proposed rules are intended to strengthen safeguards in higher-risk areas while allowing growth and redevelopment to continue in lower-risk and protected areas.

Understanding flood risk

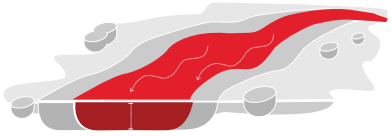
Floods are often described by how often they are statistically expected to happen. A one-in-one hundred year flood (1:100) has a one per cent chance of occurring in any year. A one-in-ten year flood (1:10) has a 10 per cent chance of occurring in any year. Calgary's regulatory flood maps are based on a 1:100 year flood, aligned to Provincial standards.



Proposed River Flood Map areas

- Floodway
- High Hazard Flood Fringe
- Flood Fringe
- Protected Flood Fringe
- Groundwater Flood Fringe

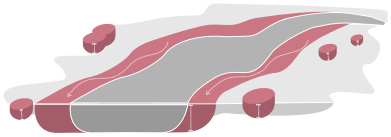
There are five distinct hazard areas proposed for Calgary's updated River Flood Map:



Floodway | Deep and/or fast flowing floodwater.

The Floodway includes the river channel and adjacent lands that carry most floodwaters during a flood event. Floodwaters in this area are typically the deepest, fastest, and most powerful within the floodplain.

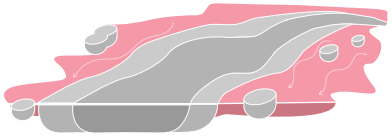
As the area of highest flood hazard, the Floodway is generally unsuitable for buildings and most forms of development.



High Hazard Flood Fringe | Deep and/or fast flowing floodwater.

Similar to the floodway, the High Hazard Flood Fringe includes areas where floodwaters are particularly deep and/or fast-flowing.

Due to the depth and velocity of floodwaters, the High Hazard Flood Fringe represents a significant flood risk.



Flood Fringe | Slower, shallower and less destructive.

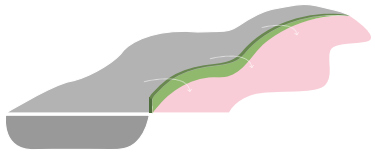
The Flood Fringe includes areas outside the Floodway and High Hazard Flood Fringe that would be inundated during a 1:100-year flood event. Floodwaters in the Flood Fringe are generally shallower, slower-moving, and less destructive than those in higher hazard flood areas.

While flood risk remains present, these areas may be more suitable for a wider range of uses and development when appropriate flood mitigation measures are incorporated.



While the proposed river flood map includes several new hazard areas for Calgary, this engagement is focused on gathering feedback on the two proposed areas:

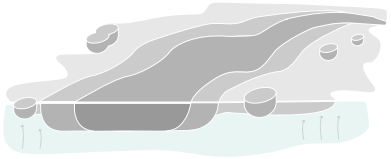
- High Hazard Flood Fringe
- Groundwater Flood Fringe



Protected Flood Fringe | Applies to locations protected by a barrier. Residual risks remain.

The Protected Flood Fringe includes areas where flood risk is reduced by protective infrastructure such as berms, flood walls, or other engineered barriers to at least a 1:100 flood level. Although these measures lower flood risk, flooding can still occur if a barrier fails, if flood levels exceed the level of protection it was designed to provide, or if rising groundwater enters below-grade spaces.

While barrier failure is unlikely, below-grade development in these areas may require measures to address potential groundwater seepage.



Groundwater Flood Fringe | Where river flooding may raise groundwater to within 3m of the ground surface.

The Groundwater Flood Fringe identifies areas where a 1:100-year river flood could cause groundwater levels to rise to within three metres of the ground surface. This is the depth at which groundwater is more likely to affect conventional residential basements and other below-grade structures. Below-grade development may require measures to address potential groundwater seepage.

How will The City regulate me and others in the flood hazard area while Calgary finalizes updates to the Land Use Bylaw?

Until City of Calgary policies and bylaws have been approved by Council and become effective, development applications will continue to be assessed according to existing regulations.

The City also considers information from the updated River Flood Map to provide advisory comments for further resilience, or to permit relaxations as appropriate. As always, applicants may draw on additional information in support of their applications.

When will the proposed development regulations be implemented?

Amendments to The City's Land Use Bylaw for flood hazard regulations will be presented for approval at a Public Hearing of Calgary City Council in 2027.

Until the new regulations are finalized and incorporated into the Land Use Bylaw, development applications will continue to be assessed using existing Land Use Bylaw rules.

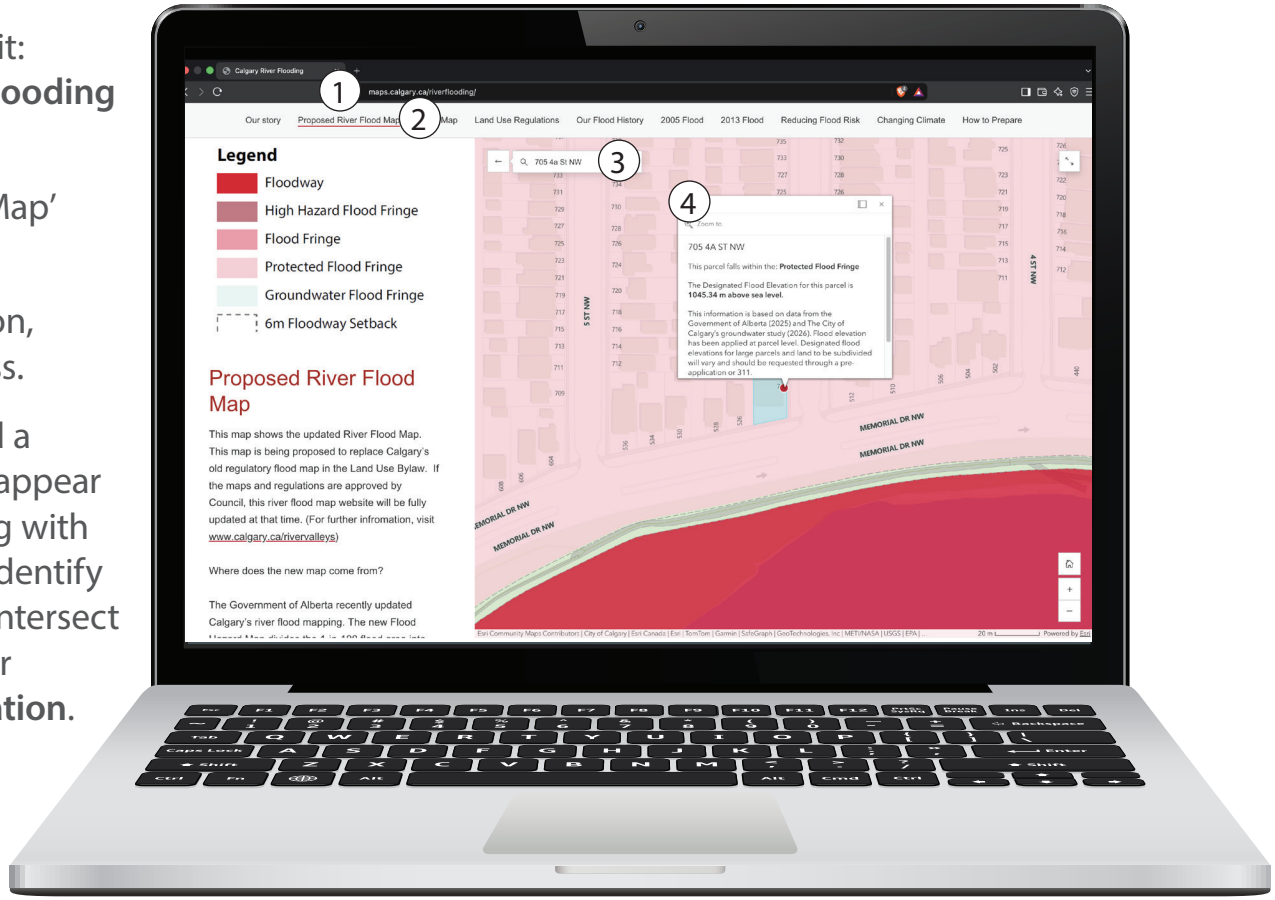
We will continue to share the best available flood risk information with development applicants and others to provide advisory comments for further resilience, or to permit relaxations as appropriate, as we have since 2013.

View Calgary's proposed River Flood Map

The City has developed a draft online interactive version of Calgary's proposed River Flood Map. You can see the extent of each area city-wide and zoom in to your property to determine which hazard area, if any, applies to you.

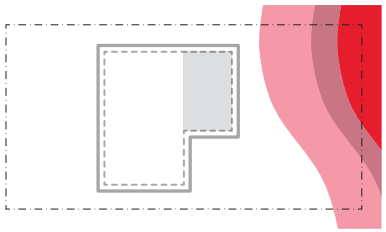
View the map and search for your address by following the steps below. The map is best viewed on desktop, but is also mobile compatible.

1. Scan the QR code or visit: **maps.calgary.ca/riverflooding**
2. Scroll down and select 'Proposed River Flood Map' on the top ribbon.
3. Click the magnifying icon, and type in your address.
4. Click on the red dot and a bright blue outline will appear around the parcel, along with a pop-up box that will identify the hazard area(s) that intersect with the parcel and your **designated flood elevation**.



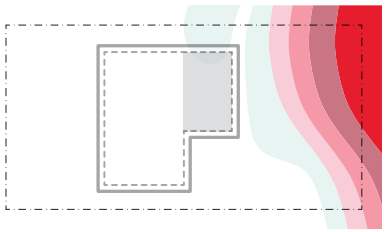
What River Flood area rules apply to my property?

If your property is partially located in the Floodway, High Hazard Flood Fringe, Flood Fringe, Protected Flood Fringe or Groundwater Flood Fringe, or is located in multiple flood areas, you may be curious how the rules apply. A development is subject to the regulations of the highest flood risk area that intersects with the development footprint (building outline). We've provided three examples to help you navigate these situations:



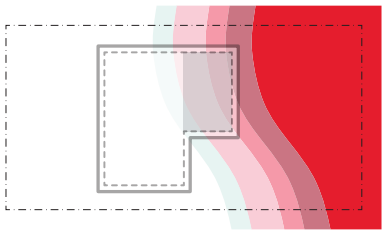
Case 1: A River Flood Map Area intersects with the parcel but not the development footprint.

Flood regulations only apply when the flood area intersects with the development footprint. No flood regulations apply to this development.



Case 2: One River Flood Map Area intersects with the development footprint.

Even if only a small portion of a River Flood Map Area intersects with a development footprint, the development project must meet those regulations. In this example, the development project would be subject to Groundwater Flood Fringe regulations.



Case 3: Multiple River Flood Map Areas intersect with the development footprint.

The highest-risk River Flood Map Area that intersects with the development footprint applies. In this example, the development project would be subject to High Hazard Flood Fringe regulations.

- Floodway
- High Hazard Flood Fringe
- Flood Fringe
- Protected Flood Fringe
- Groundwater Flood Fringe

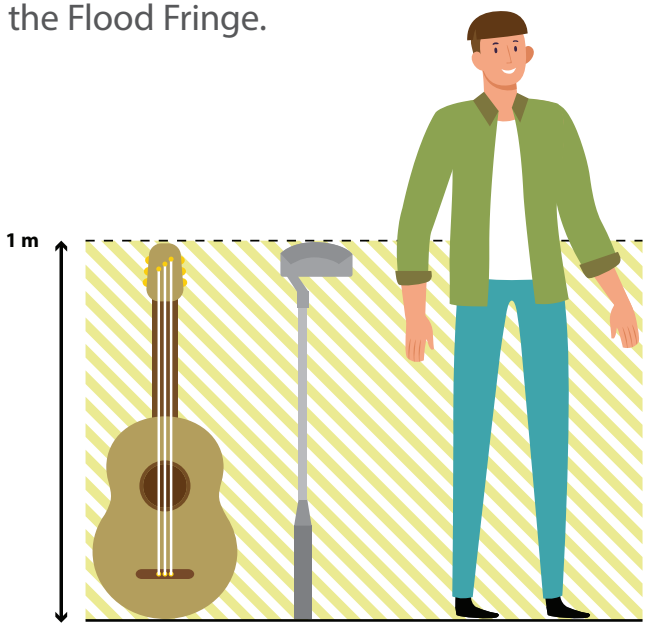
Section 2: Understanding the High Hazard Flood Fringe



In many communities, flood risk has been reduced through major investments such as reservoirs and flood barriers, and updated maps and regulations reflect this lower risk. However, some areas of our river communities remain exposed to severe flooding. These locations typically lack large-scale protective infrastructure, and additional upstream solutions may be years away or may not adequately eliminate risk. In these higher-risk areas, where floodwaters can be deeper and faster-moving, land use and building-level measures play a critical role in reducing impacts and improving long-term community resilience.

What is the High Hazard Flood Fringe?

The new provincial approach to mapping includes the new High Hazard Flood Fringe designation. The purpose of this new zone is to identify areas outside of the Floodway where the flow during a 1:100 flood would be deeper (greater than 1 metre) and/or faster (greater than 1 metre/second) than the rest of the Flood Fringe.



Historically, these areas would have been mapped as Floodways, but because this designation is the most restrictive and significantly impacts developability in established communities, the province has now designated these areas as High Hazard Flood Fringe.

This approach gives The City greater flexibility to shape development regulations that fit established neighbourhoods. However, that flexibility must always be balanced with the need to keep people safe, reduce potential flood damages, and avoid increasing risk for neighbouring properties or the broader community.

Will this affect me?

There are about 300 buildings in the newly designated High Hazard Flood Fringe (HHFF). These properties may have previously been mapped as Flood Fringe or Overland Flow areas. The HHFF areas are mainly located in Bowness, with smaller areas in Bridgeland and parts of industrial and park lands along the Bow River.

If your property is within the High Hazard Flood Fringe, it may be at risk of overland flooding. No action is required for existing buildings. Land use and building requirements may apply if you choose to renovate or rebuild your home in the future, helping to reduce potential damage.



Check

whether your property is located in the proposed High Hazard Flood Fringe: Visit maps. **calgary.ca/riverflooding** and follow the steps on page 8 to learn how to view the proposed River Flood Maps and search for your address.



View the proposed regulations in the Annotated Land Use Bylaw, available at **engage.calgary.ca/rivervalleys**

What development regulations are being proposed?

In the High Hazard Flood Fringe, fast-moving, deep floodwaters pose serious risks to both people and buildings. In these areas, land use and building regulations play an important role in reducing potential damage while supporting the long-term resilience of established communities.

The proposed regulations reflect commonly used best practices for managing risk in high-hazard flood areas. These include:

- **Land use**
  Sensitive uses and vulnerable populations often require additional support during evacuations and emergencies. Limiting or carefully managing these uses in high-risk flood areas helps improve safety and reduces the demand on emergency response resources.
- **Building design**
  How a building is designed significantly affects its ability to withstand flooding. Measures such as elevating main floors and critical systems above the Designated Flood Elevation (DFE), sealing openings, and installing backflow valves, sump pumps, and water alarms can reduce damage and speed up recovery.
- **Building footprints**
  Larger buildings can displace floodwaters, potentially increasing water levels and impacts on surrounding properties. Managing building size helps limit these community-wide effects.
- **Density**
  Increasing the number of homes or occupants in high-risk areas raises overall exposure and can complicate emergency response. Managing density helps reduce safety risks and potential damages during flood events.
- **Basements**
  Basement flooding is the most common and costly type of flood damage and can pose serious life safety risks. Limiting or restricting below-grade living spaces in high-risk areas helps reduce both financial losses and risks to occupants.
- **Shared risk management**
  Flood risk is cumulative - individual property decisions can affect neighbouring properties and the broader community over time. Development regulations are designed to manage these collective impacts, supporting public safety and effective emergency response.

High Hazard Flood Fringe Frequently Asked Questions

Can homes and basements in the High Hazard Flood Fringe be renovated?

Existing buildings with already developed/finished basements can continue to exist and be renovated (after a flood for example). The proposed regulations will not allow currently unfinished basements to renovate into living space or secondary suites or allow new basement developments in newly constructed homes (except for entryways, crawl spaces and parking areas).

Why are building footprint increases restricted in the High Hazard Flood Fringe?

Building footprint increases are proposed to be restricted in the High Hazard Flood Fringe because this is one of the highest-risk flood areas outside the floodway. During a major flood, water in these areas may be deep, fast-moving, or both. This can create serious safety risks for people leaving the area and for emergency responders trying to reach homes and businesses.

Larger buildings can also change how floodwater moves. They can block or redirect water, which may raise water levels on nearby properties or push more water into streets and other fast-flowing areas. While one addition may have a small effect on its own, many larger building footprints over time can increase risk across the neighbourhood.

The City reviewed both provincial and City flood models to understand flood depths, flow speeds and the potential effects of larger building footprints in the High Hazard Flood Fringe. Based on this review, The City determined that allowing more development in these areas is not appropriate unless the overall flood risk is reduced through larger community-level flood protection, such as flood barriers, or upstream reservoirs.

The proposed rules still include some flexibility. For example, about 30 properties with older homes can still redevelop but would be limited to their existing building footprint, while vacant low-density residential properties would still be allowed to build a single detached home, with modified setbacks.

Why are basements and other occupied spaces proposed to be restricted below the Designated Flood Elevation in the High Hazard Flood Fringe?

An “occupied space” is any part of a building where people live, work, gather, or store items that could be seriously damaged in a flood. This includes bedrooms, living rooms, kitchens, basement suites, commercial spaces and storage areas. It does not include entryways, crawl spaces, or parking.

The proposed regulations limit occupied spaces below the **Designated Flood Elevation** in areas where overland floodwater can reach the property in the Floodway, High Hazard Flood Fringe and Flood Fringe. The main reason is safety. During a flood, below-grade spaces can fill quickly, making it harder for people to get out and harder for emergency responders to help. Flooding in basements and other lower areas can also cause major damage, costly repairs and long-term stress for residents.

The approach is different in areas where major flood barriers or reservoirs prevent overland river flooding during a 1:100 flood event. In the Protected Flood Fringe and Groundwater Flood Fringe, occupied spaces are proposed to be allowed below the groundwater **Designated Flood Elevation** if required flood-proofing and risk-reduction measures are taken. These measures are intended to reduce basement seepage, protect buildings, and lower safety risks.

The City is not alone in taking this type of approach. Other communities, including Drumheller, High River, Canmore and Wood Buffalo, also regulate below-grade spaces in flood-prone areas. Calgary's proposed approach is intended to provide flexibility where risk can be managed, while putting public safety and long-term flood resilience first.

What is the status of an upstream reservoir on the Bow River? How would a project of that nature impact flood hazard mapping, including High Hazard Flood Fringe areas?

Upstream flood resilience solutions on the Bow River are critically important for Calgary.

The City continues to advocate to the Province for an upstream reservoir on the Bow River, recognizing the importance of a project of this nature for both flood resilience and water security in our community.

In 2024, The Government of Alberta advanced the Relocated Ghost Dam option to Phase 3 for further study. This potential upstream mitigation on the Bow River is an important long-term milestone at least a decade away.

If new dams or reservoirs dedicated to flood mitigation are built in the future, and if their impact on flood flows is established to be dependable and significant, the province will re-evaluate hydrology assessments and hydraulic modelling and consider flood map revisions once final construction is completed, if appropriate, as was the case with the Springbank Off-stream Reservoir.

If a flood barrier were to be built in Bowness, would the community be mapped as Protected Flood Fringe?

For an area to be mapped as Protected Flood Fringe, it must be protected from overland river flooding during a 1:100 flood. This level of protection could come from one project or from a combination of projects, but the protection must be in place and shown to meet the required standard.

The mitigation concept previously considered for Bowness included a smaller community barrier working together with a future upstream reservoir on the Bow River. Together, those measures were expected to provide protection against major floods. If Bowness were protected to at least the 1:100 flood level in the future, The Province and The City could consider changes to the flood mapping for the community.

At this time, The City is not moving forward with further work on a Bowness barrier. There is no project team or funding assigned, and previous access to provincial flood funding has ended. Because Bowness is not currently protected to the 1:100 flood level, property-level flood protection and appropriate land use and building rules remain important tools to help reduce flood risk and improve community resilience.

Section 3: Understanding the Groundwater Flood Fringe



River flooding can raise groundwater levels within the river valley. This effect can occur well outside the provincially mapped overland river flood hazard areas.

When rivers flood, **groundwater** can rise and seep into basements - even in homes that are not flooded at the surface. This can seriously damage foundations and personal belongings, with repairs often costing homeowners tens of thousands of dollars. In Canada, the average basement flood costs about $43,000 to repair. [1]

This risk can be reduced. Adding simple, cost-effective requirements to land use regulations can help protect new and redeveloped homes from groundwater flooding, reduce costly damage, and strengthen community resilience.

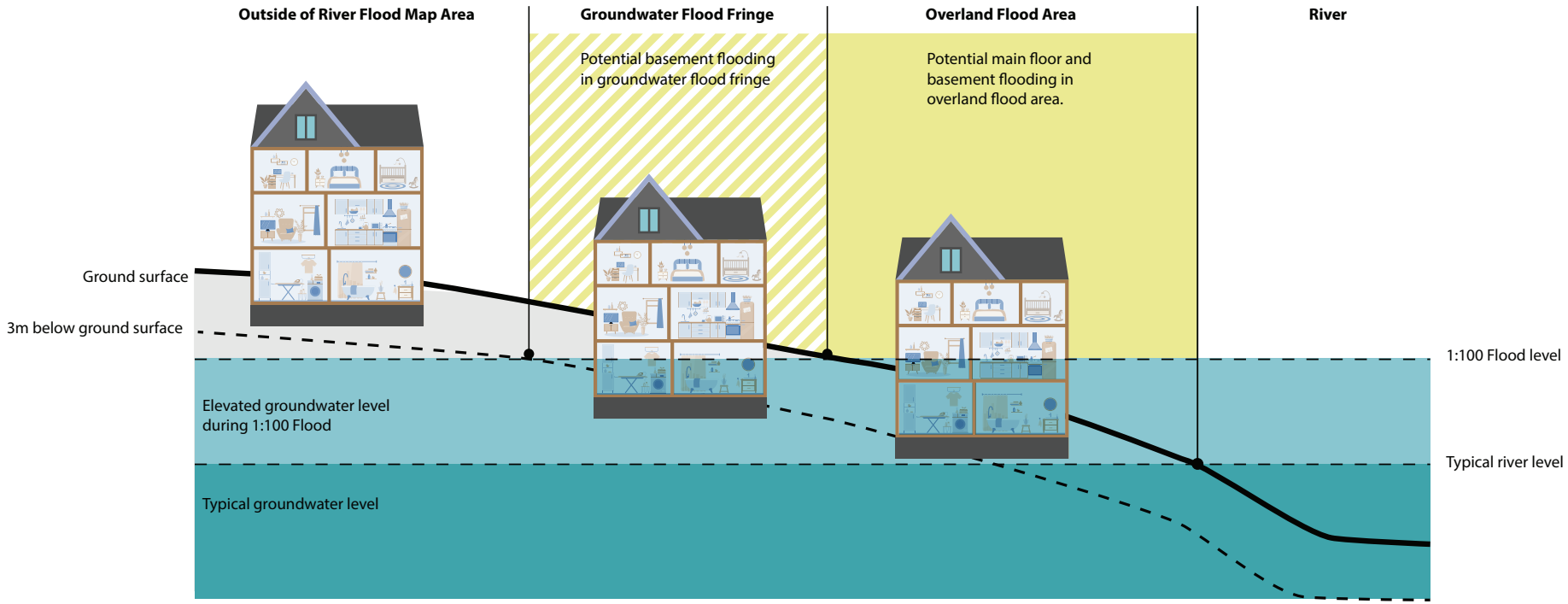
[1] **Intact Center on Climate Adaptation. (2022). Treading Water: Impact of Catastrophic Flooding on Canada's Housing Market.**

What is the Groundwater Flood Fringe?

The Groundwater Flood Fringe is the area outside the overland flood hazard area where development may face a higher risk of groundwater flooding when river flows are high. This risk increases during floods or when river levels remain elevated for an extended period, such as when water is released from an upstream reservoir after a flood.

This is different from general groundwater risk, which can occur anywhere in Calgary and is not always linked to high water levels in rivers.

The Groundwater Flood Fringe identifies areas where a 1:100 river flood could raise groundwater to within three metres of the surface. This depth was used because groundwater at this level is more likely to affect a typical residential basement, which is usually about 2.4 to 2.7 metres, or 7 to 8 feet, deep. This new fringe is proposed as an addition to Calgary's River Flood Map, with associated **development regulations** intended to support resilient building practices. In this area, the Designated Flood Elevation is the groundwater elevation.

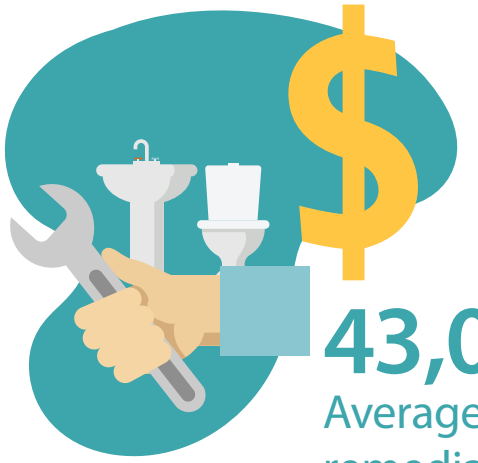


Conceptual diagram to demonstrate how flood levels may impact a residential home in overland and groundwater flood areas

Will this affect me?

About 8,000 properties across Calgary's river valleys are within the Groundwater Flood Fringe. Some areas may have previously been within higher risk flood hazard areas on the Elbow River (e.g. previous Floodway, Flood Fringe or Overland Flow Area), and others may be newly mapped within this area.

If your property is in this area, it may e at risk of groundwater flooding during a river flood. **If you are not planning to expand the size of your home, or rebuild your home, then there is no action required.** New basement floodproofing requirements may apply if you rebuild or add to your home in the future, helping protect it from damage from groundwater seepage during river floods.



43,000

Average cost of remediating weather induced flooded basements in Canada.



Check

whether your property is located in the proposed Groundwater Flood Fringe: Visit maps. **calgary.ca/riverflooding** and follow the steps on page 8 to learn how to view the proposed River Flood Maps and search for your address.



View the proposed regulations in the Annotated Land Use Bylaw, available at **engage.calgary.ca/rivervalleys**

What development regulations are being proposed?

In the Groundwater Flood Fringe, high groundwater poses flood risks to both people and buildings. In these areas, building regulations play an important role in reducing potential damage while supporting the long-term resilience of established communities.

The proposed regulations reflect commonly used best practices for managing risk in high groundwater areas. Remember in this area, the designated flood elevation is a groundwater elevation. Proposed regulations include:

- **Built to handle groundwater pressure**
  Homes must be designed to prevent structural damage from elevated groundwater during flood conditions, with verification from a qualified professional.
- **Main floor above flood level**
  The main floor must be built above the **designated flood elevation**.
- **Utilities protected**
  Electrical and mechanical systems (such as the furnace and main electrical service) must be located above the **designated flood elevation**.
- **Building openings placed higher**
  Windows, doors and other building openings should be located above the **designated flood elevation**.
- **Water-resistant design where needed**
  If openings cannot be raised, they must be designed to limit water entry.
- **Backflow prevention installed**
  A sewer backflow valve must be included to prevent wastewater from entering the home.
- **Sump pump with backup power**
  Weeping tiles must drain to a sump pump equipped with battery backup.
- **Safe water discharge**
  Sump pump discharge must discharge above the flood level and at least 2 metres away from property lines into a landscaped area.
- **Water alarm installed**
  A water alarm must be installed in the lowest level of the home to alert residents to potential flooding.

Groundwater Flood Fringe Frequently Asked Questions

Why did The City develop a groundwater risk map?

The Groundwater Flood Fringe accounts for residual flood risk not captured in Provincial Flood Hazard maps. It also addresses feedback from Calgarians who wanted to acknowledge the role groundwater has played in flood risk and damages in river communities.

We're proposing a new Groundwater Flood Fringe in Calgary's River Flood Map to identify risk, improve awareness, establish appropriate mitigations and move Calgary's flood resilience journey forward. The Groundwater Flood Fringe is based on the groundwater levels during a 1:100 river flood.

How did The City develop the Groundwater Flood Fringe map?

The City completed the Calgary River Valleys Groundwater Study to better understand groundwater flood risk in river valley communities. The study included:

- Modelling groundwater levels during flood events in river valley areas.
- Estimating potential impacts to buildings and properties.
- Reviewing options to improve resilience.
- Creating a new river flood-induced groundwater risk map for Calgary.

The study found that during major floods, such as a 1:100 flood event, groundwater levels can rise and affect areas beyond the current flood hazard area. It also found that many Calgary buildings, particularly older homes in established communities, are vulnerable to river-related groundwater flooding.

The Groundwater Flood Fringe identifies areas where a 1:100 river flood could raise groundwater to within three metres of the surface. This depth was used because groundwater at this level is more likely to affect a typical residential basement, which is usually about 2.4 to 2.7 metres, or 7 to 8 feet, deep.

The risk area was developed using a 3D computer model that simulates river and groundwater levels. The model considers river flow, groundwater movement through the aquifer beneath the river valley, and groundwater recharge from heavy rainfall that soaks into the ground. To test the model's accuracy, results were compared with groundwater levels recorded in wells across Calgary's river valleys during both normal and high river flows.

To increase confidence in the modelled groundwater levels, which are proposed **as the Designated Flood Elevations,** The City tested many scenarios with different model assumptions. This uncertainty analysis showed how groundwater elevations could vary. The City selected the 90th percentile groundwater elevations, meaning the **Designated Flood Elevation** is a very reliable estimate of the possible groundwater levels during a 1:100 flood.

Is the Calgary River Valleys Groundwater Study available to the public?

Yes, the study is published on The City's website. You can access the report at **calgary.ca/rivervalleys.**

Does the groundwater mapping on the Elbow River include the mitigation provided by the Springbank Off-Stream Reservoir and Glenmore Dam?

On the Elbow, the 1:100 river flood event used to model and map groundwater included the mitigation provided by the Springbank Off-Stream Reservoir and Glenmore Reservoirs. This means the model used a mitigated 1:100 flow below the Glenmore Dam of 150m^3/s (i.e. the river channel is full, but no overland flooding into communities).

The bigger the flood event, the more water is held back in the reservoirs, and the more water that needs to be released back to the river after the river starts to recede. This means that flows in the river will be higher for longer (up to several weeks) as water is released. This could increase the groundwater impact for larger flood events versus smaller flood events, even if SR1 and Glenmore Reservoirs can hold the downstream river flow to 150m^3/s for all floods up to the 1:200 flood event.

Is the groundwater mapping/regulation something only from The City, or is the Province also adopting it?

The City of Calgary developed the Groundwater Flood Fringe map and is proposing the related regulations for Calgary. The Province is not adopting this specific City map or regulation at this time. However, Calgary is not alone in considering groundwater flood risk. Other communities, including Canmore and some municipalities in British Columbia, have put groundwater-related building requirements in place. The Alberta Building Code now also includes groundwater in some limited (non-flood) circumstances.

Glossary

One-in-100 year flood event: also expressed as 1:100, this flood is linked to a river flow-rate that has a 1 per cent likelihood of occurring in any given year. It does not mean that this size of flood event will only occur every 100 years.

Designated Flood Elevation (DFE): an elevation that references the water level that is expected during a flood of a magnitude that has a one per cent chance of occurring in any year, as identified on the river flood maps.

- The DFE for the Floodway, High Hazard Flood Fringe and Flood Fringe areas is based on the river flood level, and will typically be an above-ground elevation, reflecting the overland flood risk.
- The DFE for the Protected Flood Fringe and Groundwater Flood Fringe is based on the groundwater level on the parcel, and will typically be a below-ground elevation, reflecting the river-flood related flood risk.

Development regulation: Rules in The City's Land Use Bylaw that guide what can be built, where it can be built, and how it must be designed. In flood areas, development regulations help reduce potential flood damage, support safer building practices, and protect people, property, and the surrounding community.

Groundwater flooding: Groundwater is water that is stored below the ground surface in soil and rock that can rise or move in response to rainfall, snowmelt, or river flooding. In areas near the river, a major river flood can cause groundwater below the surface to rise high enough to enter buildings and create flooding risks, even without visible river flooding overland.

Land Use Bylaw: The City's rulebook for how land and buildings can be used and developed in Calgary. It sets out the rules for each land use district and explains how decisions are made on development permit applications. Every municipality in Alberta is required to have a Land Use Bylaw under the Municipal Government Act. In flood-prone areas, Calgary's Land Use Bylaw helps guide safer building practices, reduce flood damage, and manage risk to people, property, and surrounding communities.

Occupied spaces: includes all areas of a building that are:

(A) used for dwelling or business including, but not limited to:
- (i) bedrooms;
- (ii) living areas;
- (iii) kitchens;
- (iv) basements; and
- (v) commercial spaces; and

(B) does not include:
- (i) entryways;
- (ii) crawl spaces; or
- (iii) areas used for parking and loading.

Overland river flooding: River water that overflows its banks and flows over the ground and onto streets, parks, yards or properties during a flood. Overland flooding can damage buildings, affect roads and utilities, and create safety risks for people and emergency responders, especially where water is deep or fast-moving.

River Flood Map area: The collective area made up of the Floodway, High Hazard Flood Fringe, Flood Fringe, Protected Flood Fringe and Groundwater Flood Fringe.

