

Summary of Proposed River Flood Area Regulations

This attachment provides a summary of the proposed regulations to support understanding of the proposed amendments to the Land Use Bylaw 1P2007 ('the Bylaw') (Attachment 5).

General Definitions and Consistency Updates

Terminology updates have been made throughout the Bylaw to ensure aligned language with the updated River Flood Map areas. The following **new** definitions are also provided:

SECTION	Defined Terms
13(49)	“ designated flood elevation ” means 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.
13(61)	“ flood fringe ” means the areas identified on the River Flood Maps.
13(62)	“ floodway ” means the areas identified on the River Flood Maps.
13(72.1)	“ groundwater flood fringe ” means the areas identified on the River Flood Maps.
13(73.3)	“ high hazard flood fringe ” means the areas identified on the River Flood Maps.
13(96.1)	<p>“occupied space” includes all areas of a building that are:</p> <p>(a) used for dwelling or business including, but not limited to:</p> <ul style="list-style-type: none"> (i) bedrooms; (ii) living areas; (iii) kitchens; (iv) basements; and (v) commercial spaces; and <p>(b) does not include:</p> <ul style="list-style-type: none"> (i) entryways; (ii) crawl spaces; or (iii) areas used for parking and loading.
13(113.1)	“ protected flood fringe ” means the areas identified on the River Flood Maps.

13(121.1)	“ river flood area ” means the collective area made up of the floodway, high hazard flood fringe, flood fringe, protected flood fringe and groundwater flood fringe .
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Part 3, Division 3 Updates

This section is intended to amend the existing “Part 3, Division 3: Floodway, Flood Fringe and Overland Flow”, and provides updated regulations aligned to new River Flood Area maps.

Building Setback Rules (Section 56.1)

These rules are retained from the existing Bylaw. The purpose of these rules is to prevent development encroachment against rivers. The River Flood Maps now delineate the six metre (m) setback line to support clarity for applicants and reviewers of where this setback delineation is.

River Flood Areas (Section 57)

Summary of rules applicable to all River Flood Areas

SECTION	Topic summary and description of rule	Proposed Land Use Bylaw Rule
56	<p>Regulates building setbacks to the Floodway</p> <p><i>The building setbacks apply to all parcels adjacent to the floodway.</i></p>	<p>(1) Unless otherwise referenced in subsection (2), buildings must be set back a minimum of 6.0 metres from the floodway.</p> <p>(2) Where a parcel was vacant on July 22, 1985, all buildings must be set back the greater of:</p> <ul style="list-style-type: none"> (a) 60.0 metres from the edge of the Bow River; (b) 30.0 metres from the edge of the Elbow River, Nose Creek, West Nose Creek, Pine Creek; or (c) 6.0 metres from the floodway.
57(1) 57(2)	<p>How the rules are applied to parcels or buildings partially in the river flood area.</p> <p><i>The regulations are applied to only the portion of the parcel that falls within the specific flood area.</i></p>	<p>(1) Where any portion of a parcel is located within the floodway, high hazard flood fringe, flood fringe, protected flood fringe or groundwater flood fringe, the regulations apply to only that portion of the parcel located within that area.</p> <p>(2) Where a building or any portion of a building is located in the river flood area, the regulations for the most restrictive area in which the building is located will apply to the entire building.</p>

	<i>The regulations for the most restrictive area that a building is located in apply to the entire building.</i>	
57(3)	<p>Types of structures exempt from meeting the building floodproofing measures.</p> <p><i>Building floodproofing measures do not apply to small structures (such as fences, balconies, patios, sports ramps, hot tubs, garages) or temporary buildings.</i></p>	<p>(3) The flood mitigation measures referenced in subsection (6) do not apply to:</p> <ul style="list-style-type: none"> (a) a fence, gate, deck, balcony, landing, patio, skateboard and sports ramp, air conditioning equipment, satellite dish, hot tubs, above ground outdoor swimming pools, or an Accessory Residential Building that does not contain a Backyard Suite; (b) a temporary building that is: <ul style="list-style-type: none"> (i) not placed on a foundation; (ii) located on the parcel for less than 365 consecutive days; and (iii) removable from the parcel within 24 hours; and (c) a change of use in a legally existing building.
57(4)	<p>How building design rules apply to existing development.</p> <p><i>Existing buildings can remain as they are, but new changes cannot increase flood risk by adding more living space or new suites in areas most vulnerable to overland flooding (Floodway, High Hazard Flood Fringe, Flood Fringe).</i></p>	<p>(4) The flood mitigation measures in subsection (6) do not apply to a building that is legally existing or approved prior to June 23, 2026, provided that any new development to an existing building in the floodway, high hazard flood fringe or flood fringe:</p> <ul style="list-style-type: none"> (a) does not increase the floor area of the legally existing or approved occupied space below the designated flood elevation; (b) does not include a new Secondary Suite below the designated flood elevation; and (c) meets the requirements in subsection (5), if applicable.
57(5)	<p>How building design rules apply to additions, re-development and new development.</p> <p><i>Building development rules described in subsection (6) apply based on a sliding scale of development. Existing development or additions <10 per cent of gross floor area (GFA) do not need to meet rules. New development, re-development, or additions >75 per cent of GFA must fully meet rules. Additions that increase GFA by >10 per cent - <75 per</i></p>	<p>(5) The flood mitigation measures referenced in subsection (6) do not apply to additions to buildings that do not increase the gross floor area of the building by more than 75.0 per cent of the gross floor area legally existing or approved as of June 23, 2026, provided that:</p> <ul style="list-style-type: none"> (a) the additions do not increase the gross floor area of the building by more than 10.0 per cent of the gross floor area legally existing or approved as of June 23, 2026; or (b) the additions that increase the gross floor area of the building by more than 10.0 per cent but less than 75.0 per cent of the gross floor area legally existing or approved as of June 23, 2026, the building: <ul style="list-style-type: none"> (i) has an electrical consumer service disconnect for the entire building through the placement of the master switch above the designated flood elevation; and

	<p>cent must meet modified rules including installing a sewer backflow valve and placing main electrical service disconnect above the designated flood elevation.</p>	<p>(ii) has a sewer backflow valve installed.</p>
<p>57(6)</p>	<p>Flood resilient building design rules</p> <p><i>This section describes the building design flood mitigation measures that apply to new or re-developed buildings, or buildings with an addition >75 per cent of gross floor area in River Flood Map areas.</i></p> <p><i>There are two subsections:</i></p> <p>(a) <i>the floodway, high hazard flood fringe, and flood fringe area rules.</i></p> <p>(b) <i>the protected flood fringe and groundwater flood fringe area rules.</i></p> <p><i>Previous building design rules required:</i></p> <p>(a) <i>prevent structural damage by floodwaters;</i></p> <p>(b) <i>first floor above DFE;</i></p> <p>(c) <i>electrical and mechanical equipment above DFE; and</i></p> <p>(d) <i>sewer back up valve installed.</i></p>	<p>(6) In the river flood area, buildings must be designed with the following flood mitigation measures:</p> <p>(a) in the floodway, high hazard flood fringe or flood fringe, a building must:</p> <p>(i) be designed to prevent structural damage from floodwater, as demonstrated by a note on the plans by a qualified professional;</p> <p>(ii) have the main floor entirely above the designated flood elevation;</p> <p>(iii) have all occupied space and Secondary Suites be located above the designated flood elevation;</p> <p>(iv) have electrical and mechanical equipment, including the consumers service disconnect and furnace, be located at or above the designated flood elevation;</p> <p>(v) have all windows, building entrances and building envelope penetrations located above the designated flood elevation minus 1.0 metre;</p> <p>(vi) have building envelope penetrations be designed to minimize water ingress where not located above the designated flood elevation; and</p> <p>(vii) have a sewer backflow valve installed;</p> <p>(viii) have all weeping tiles drain to a sump pump with battery backup power;</p> <p>(ix) have the sump pump discharge pipe discharge above the designated flood elevation to a soft surfaced landscaped area a minimum of 2.0 metres from a property line;</p> <p>(x) have a water alarm installed in the lowest level of the building below grade; and</p> <p>(xi) provide one of the following where a reverse-grade driveway leading to an enclosed garage or parkade is proposed:</p> <p>(A) a flood barrier, other than a trench drain; or</p> <p>(B) a driveway peak elevation greater or equal to 0.30 metres above the highest existing grade on the adjacent street; or</p> <p>(b) in the protected flood fringe or groundwater flood fringe, a building must:</p> <p>(i) be designed to prevent structural damage from high groundwater potentially sustained for several days during a high river event, as demonstrated by a note on the plans by a qualified professional;</p>

		<ul style="list-style-type: none"> (ii) have the main floor of all buildings entirely above the designated flood elevation; (iii) have electrical and mechanical equipment, including the consumers service disconnect and furnace, be located at or above the designated flood elevation; (iv) have all windows, building entrances and building envelope penetrations located above the designated flood elevation; (v) have building envelope penetrations be designed to minimize water ingress where not located above the designated flood elevation; (vi) have a sewer backflow valve installed; (vii) have all weeping tiles drain to a sump pump with battery backup power; (viii) have the sump pump discharge pipe discharge above the designated flood elevation to a soft surfaced landscaped area a minimum of 2.0 metres from a property line; and (ix) have a water alarm installed in the lowest level of the building below grade.
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Summary of rules applicable to specific River Flood Areas

58 Floodway	<p>Regulating the land uses appropriate in the floodway.</p> <p><i>These sections limit the type of new uses allowed in the floodway. Restricts new buildings from being added in the floodway.</i></p>	<ul style="list-style-type: none"> (1) In addition to this section, the requirements in sections 56 and 57 apply to parcels in the floodway. (2) Unless otherwise referenced in subsection (3), (4) or (5), in the floodway only the following uses may be allowed if also listed as a use within the Land Use District: <ul style="list-style-type: none"> (a) Extensive Agriculture; (b) Motion Picture Filming Location; (c) Natural Area; (d) Outdoor Recreation Area; (e) Park; (f) Special Function – Class 1; (g) Special Function – Class 2; (h) Urban Agriculture; (i) Utilities; and (j) Utilities – Linear.
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		(3) For parcels located in the floodway on which a building existed and the use of the parcel was approved as of September 9, 1985, the use may continue provided that the use is listed in the land use district that the parcel is designated.
	<p>Regulations for legally existing residential buildings.</p> <p><i>When replacing or adding to a residential building, it must be on the same footprint as the legally existing building.</i></p>	<p>(4) Subject to subsection (3), no new buildings or other structures are allowed in the floodway, except for the replacement of a legally existing Accessory Residential Building, Backyard Suite, Duplex Dwelling, Secondary Suite, Semi-detached Dwelling or Single Detached Dwelling on the same building footprint.</p> <p>(5) An addition to a building in the floodway may only occur if it does not increase the building footprint and does not increase the obstruction to the floodwaters.</p>
58 Floodway	<p>Regulating parcel alterations.</p> <p><i>No alterations to the grade that would divert floodwaters. Restricts structures and storage in the floodway to reduce debris washed down stream causing damage.</i></p>	<p>(6) No buildings or structures including, but not limited to, decks, patios, fences, gates, retaining walls, docks, or riprap are allowed to be constructed on, in or under a floodway.</p> <p>(7) Grade in the floodway must not be altered.</p> <p>(8) Nothing must be stored outside of a building.</p>
59 High Hazard Flood Fringe	<p>Regulating the land uses appropriate in the high hazard flood fringe.</p> <p><i>These sections limit the type of new uses allowed in the high hazard flood fringe. Limits new buildings being added in the high hazard flood fringe.</i></p>	<p>(1) In addition to this section, the requirements in sections 56 and 57 apply to parcels in the high hazard flood fringe.</p> <p>(2) Unless otherwise referenced in subsection (3), (4), (5), (6) or (7), in the high hazard flood fringe, only the following uses may be allowed if also listed as a use within the Land Use District:</p> <ul style="list-style-type: none"> (a) Extensive Agriculture; (b) Motion Picture Filming Location; (c) Natural Area; (d) Outdoor Recreation Area; (e) Park; (f) Special Function – Class 1; (g) Special Function – Class 2; (h) Urban Agriculture; (i) Utilities; and (j) Utilities – Linear.

		<p>(3) For parcels located in the high hazard flood fringe on which a building existed or the use of that parcel was approved as of June 23, 2026, the use may continue provided that the use is listed in the land use district that the parcel is designated.</p>
<p>59 High Hazard Flood Fringe</p>	<p>Regulations for legally existing residential and non-residential buildings.</p> <p><i>A few non-residential uses may be replaced on the existing building footprint.</i></p> <p><i>Existing residential buildings may be replaced or added to if on the same building footprint.</i></p> <p><i>No additional dwelling units or suites may be added. However, a new single-detached home can be built on a vacant lot that was previously subdivided, but larger setbacks must be provided to minimize impact on flood waters.</i></p>	<p>(4) Subject to subsection (3), in the high hazard flood fringe, legally existing non-residential uses may be replaced if the use:</p> <ul style="list-style-type: none"> (a) was existing prior to June 23, 2026; (b) is located on the same building footprint; (c) is listed as a use within the Land Use District; and (d) is a use listed below: <ul style="list-style-type: none"> (i) Food Kiosk; (ii) Food Production; (iii) Municipal Works Depot; (iv) Natural Area; (v) Outdoor Recreation Facility; (vi) Park; (vii) Parking Lot – Grade; (viii) Park Maintenance Facility – Large and Small; (ix) Power Generation Facility – Medium; (x) Public Transit System; and (xi) Zoo. <p>(5) Unless otherwise referenced in subsection (7), no new buildings or other structures are allowed in the high hazard flood fringe, except for the replacement of a legally existing Accessory Residential Building, Backyard Suite, Duplex Dwelling, Secondary Suite, Semi-detached Dwelling or Single Detached Dwelling on the same building footprint.</p> <p>(6) Unless otherwise referenced in subsection (7), the maximum number of units or suites is equal to the number of units or suites legally existing or approved on a parcel prior to June 23, 2026.</p> <p>(7) Notwithstanding subsection (2), where a parcel designated as a low density residential district is vacant and received a subdivision approval prior to June 23, 2026, a maximum of one Single Detached Dwelling may be constructed on the parcel, provided the minimum building setbacks from:</p> <ul style="list-style-type: none"> (a) any side property line is 2.2 metres; or (b) one side property line is 1.8 metres, if the combined building setbacks

		<p>from all side property lines is greater than or equal to 4.4 metres.</p> <p>(8) An addition to a building in the high hazard flood fringe may only occur if it does not increase the building footprint or increase the obstruction to the floodwaters.</p>
59 High Hazard Flood Fringe	<p>Regulating parcel alterations.</p> <p><i>Restricts structures and storage in the high hazard flood fringe to reduce debris washed down stream causing damage. No alterations to the grade that would divert floodwaters, except for grading in a previously approved outline plan area.</i></p>	<p>(9) Grade in the high hazard flood fringe must not be altered.</p> <p>(10) Only those goods that are easily removable may be stored outside of a building.</p> <p>(11) Where a development is located in 'Area A' on the River Flood Maps, the rules in this section do not apply if the development:</p> <ul style="list-style-type: none"> (a) is graded above the designated flood level under an active Development Agreement; and (b) complies with the groundwater flood fringe rules in section 61.
60 Flood Fringe	<p>No restrictions on allowable uses in the flood fringe.</p> <p><i>Dwelling units and suites may be added according to a parcel's land use district. Restricting living space in basements.</i></p>	<p>(1) In addition to this section, the requirements in sections 56 and 57 apply to parcels in the flood fringe.</p> <p>(2) Only those goods that are easily removable may be stored outside of a building in the flood fringe.</p>
61 Protected Flood Fringe and Groundwater Flood Fringe	<p>No restrictions on uses or living spaces in basements.</p> <p><i>Building flood mitigation measures only apply to additions or new homes.</i></p>	<p>(1) The requirements in sections 56 and 57 apply to parcels in the protected flood fringe or groundwater flood fringe.</p> <p>(2) The flood mitigation measures in subsection 57(6) do not apply to a building that is legally existing or approved prior to June 23, 2026, provided that any new development proposed does not increase the gross floor area by more than 10.0 per cent.</p>

Summary of Regulation Changes by River Flood Area

River Flood Area (1:100)	# Buildings	Discussion	Current Regulations	Proposed Regulations
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Floodway	8	Existing provincially defined hazard area is not changing substantially in the updated map, except the Elbow River where the floodway is now smaller. The floodway remains our highest risk area, unsuitable for development.	<ul style="list-style-type: none"> • Designated Flood Elevation (DFE) is based on 1:100 year flood level (established in 1985) • Buildings: <ul style="list-style-type: none"> • No new buildings or structures allowed, except for replacement of residential buildings. • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must include a few flood mitigating building standards, or remove building from floodway, where possible. • Setbacks: minimum six m from floodway, or 60 m from Bow River and 30 m from Elbow River/creeks. • No changes to grade. • No storage outside of a building. 	<ul style="list-style-type: none"> • Designated Flood Elevation (DFE) is based on updated 1:100 year overland flood levels • Buildings: <ul style="list-style-type: none"> • No new buildings or structures allowed, except for replacement of residential buildings. • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must be fully floodproofed, or remove building from floodway, where possible. • No new living spaces or suites below DFE. • Setbacks: <ul style="list-style-type: none"> • Minimum six m from floodway, or 60 m from Bow River and 30 m from Elbow River/creeks. • No changes to grade. • No storage outside of a building.
High Hazard Flood Fringe	282	New provincially defined hazard area, with an equivalent risk level as the floodway. In established communities with historical flood mapping, this hazard area was added instead of expanding the floodway, to provide flexibility to the Development Authority in deciding how to manage the risk. 282 buildings are located in this area, which were previously in the Flood Fringe. This zone primarily impact property owners in Bowness, and to a lesser extent in Bridgeland and some Industrial lands along the Bow	<ul style="list-style-type: none"> • This flood hazard area does not exist in current flood maps or regulations. 	<ul style="list-style-type: none"> • Designated Flood Elevation (DFE) is based on updated 1:100 year overland flood levels • Buildings: <ul style="list-style-type: none"> • No new buildings or structures allowed, except for the replacement of residential buildings and a few allowable non-residential use buildings on existing building footprints. • Vacant low density residential parcels may build a single-detached home with larger side setback requirements.

		River. Given the high flood risk in these areas, development rules are proposed to be more aligned to those of the Floodway while retaining flexibility for existing community development patterns, to promote resilient building design and protect life safety.		<ul style="list-style-type: none"> • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must be fully floodproofed, or remove building from high hazard flood fringe, where possible. • No new living spaces or suites below DFE. <p>Setbacks:</p> <ul style="list-style-type: none"> • Minimum six m from floodway, or 60 m from Bow River and 30 m from Elbow River/creeks. • No changes to grade, except for already approved outline plan areas. • No subdivisions for infill developments or approval of new suites.
Flood Fringe	337	Existing provincially defined hazard area that will have its current boundaries reduced. 337 buildings are in the updated Flood Fringe. The proposed Bylaw amendments limit new living spaces and the approval of new secondary suites below the designated flood elevation.	<ul style="list-style-type: none"> • Buildings: <ul style="list-style-type: none"> • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must include a few flood mitigating building standards. • Setbacks: minimum six m from floodway, or 60 m from Bow River and 30 m from Elbow River/creeks. 	<ul style="list-style-type: none"> • Designated Flood Elevation (DFE) is based on updated 1:100 year overland flood levels • Buildings: <ul style="list-style-type: none"> • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must be fully floodproofed. • No new living spaces or suites below the DFE.
Protected Flood Fringe	1,592	New provincially defined hazard area where a flood barrier mitigates overland river flood risk to at least the 1:100 flood level. 1,592 buildings are located in the protected flood fringe. The buildings in this	<ul style="list-style-type: none"> • This flood hazard area does not exist in current flood maps or regulations. 	<ul style="list-style-type: none"> • Designated Flood Elevation (DFE) is based on updated 1:100 year groundwater flood levels • Buildings:

		area were previously in the Flood Fringe and will now have more permissible development regulations targeted at creating resilience for residual risks such as high groundwater during river floods. Development, re-development and density are not restricted in this area, reflecting the risk reduction offered by community flood protection investments.		<ul style="list-style-type: none"> • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must be fully floodproofed. • Living spaces and suites allowed below the DFE.
Groundwater Flood Fringe	8,120	This is a new City-defined hazard area to create awareness of river-related groundwater risk. Despite the dominant risk of surface flooding being mitigated by the investments in flood protection, groundwater remains a residual risk and a driver of damages. The proposed rules introduce building regulations to mitigate potential groundwater flooding damage during river floods. 8,120 buildings are located in the Groundwater Flood Fringe. 1,500 would have previously been within higher risk flood hazard areas on the Elbow River (e.g. previous Floodway, Flood Fringe or Overland Flood Area).	<ul style="list-style-type: none"> • This flood hazard area does not exist in current flood maps or regulations. 	<ul style="list-style-type: none"> • Designated Flood Elevation (DFE) is based on updated 1:100 year groundwater flood levels • Buildings: <ul style="list-style-type: none"> • Legally existing buildings and uses may continue without additional requirements. • Replacing existing buildings or additions >75 per cent floor area must be fully floodproofed. • Living spaces and suites allowed below the DFE.