

Streamside Protection and Enhancement Development Permit Area Guidelines

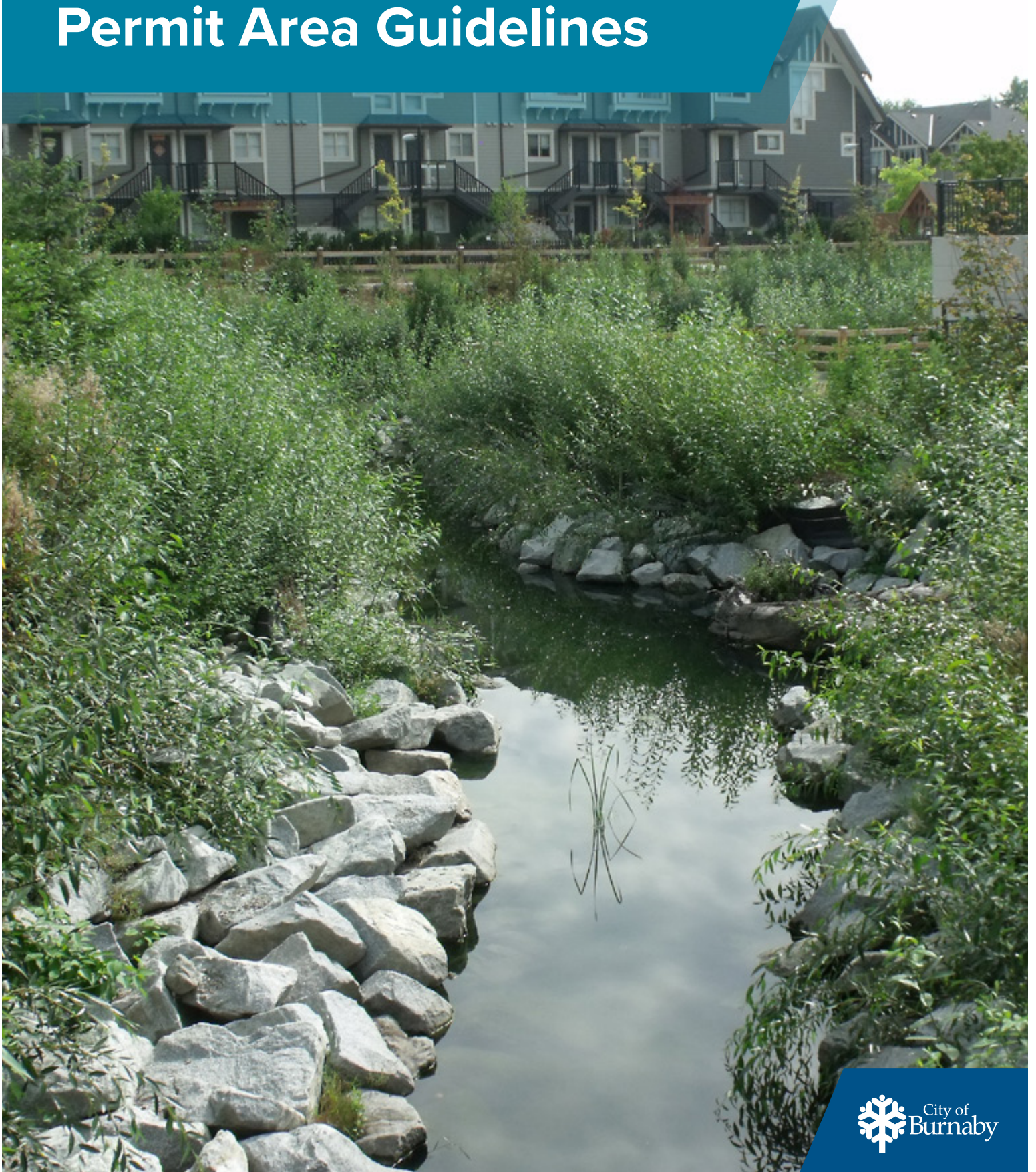


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Schedule II/ Streamside Protection and Enhancement Development Permit Area Guidelines

Schedule II establishes the Streamside Protection and Enhancement Development Permit Guidelines.

1.0 Preamble

1.1 Legislative context

Pursuant to section 488(1)(a) of the *Local Government Act*, the Burnaby 2050 Official Community Plan:

- (a) designates certain lands within the City as a Development Permit Area for the protection of the natural environment, its ecosystems and biological diversity; and
- (b) describes the special conditions and objectives that justify the designation.

See Burnaby 2050 Official Community Plan, Appendix C. Streamside Protection and Enhancement Development Permit Area (DPA).

This Schedule II to the Burnaby *Zoning Bylaw* specifies the guidelines respecting the manner by which the special conditions and objectives will be addressed (per *Local Government Act*, section 488(2)(b) and (3)) and the conditions under which a Streamside Protection and Enhancement Development Permit will not be required (per *Local Government Act*, section 488(4)).

1.2 How to use this document

The remainder of this document is organized into four sections:

2.0 Introduction

Provides an overview of the why and when a Streamside Protection and Enhancement Development Permit is or is not required.

3.0 Determining Streamside Protection and Enhancement Area (SPEA)

Supplements Part 4 - 4.2 of the Burnaby *Zoning Bylaw* by outlining the methods for determining the **SPEA** boundaries applicable to a **development site**.

4.0 Development Permit Guidelines

Provides guidelines applicable to protecting, enhancing and restoring a SPEA and the types of requirements and conditions that may be included in a Streamside Protection and Enhancement Development Permit.

5.0 Glossary

Provides definitions for defined terms used in this Schedule.

2.0 Introduction

2.1 Purpose

The purpose of the Streamside Protection and Enhancement Development Permit Guidelines is to build on the successful outcomes of Burnaby's policy, regulation and guidelines that have been in place since the late 1990s to protect and enhance **riparian areas** when land is developed or redeveloped. Local governments are directed by the Province of British Columbia to use their land use planning and regulatory powers to meet or exceed the streamside riparian protection requirements of provincial legislation and regulation. Protecting and enhancing riparian areas not only protects **streams** and **fish** habitat, it also provides habitat for wildlife, creates corridors that enhance biodiversity and conserves green space that makes our community more livable.

2.2 Application

This Schedule applies to all parcels shown shaded in the Streamside Protection and Enhancement Development Permit Area Map in the Burnaby 2050 Official Community Plan (OCP), Appendix C, and any other parcel in the City that contains a stream, or is partly or entirely located:

- (a) within 30 metres of the **top of bank** of a **stream**; or
- (b) within 30 metres of the top of a **ravine bank** for **ravines** that are less than or equal to 60 metres in width, or
- (c) within 10 metres of the **top of ravine bank** for ravines that are greater than 60 metres in width, whether or not it is shown shaded on the Streamside Protection and Enhancement Development Permit Area map in the Burnaby 2050 OCP.

2.3 Applicable activities

Unless an exemption under section 2.4 applies, the following requires the owner to first obtain a Development Permit under this Schedule:

- (d) subdivision of land;
- (e) construction (including demolition) of, addition to or alteration of a building or other structure; or
- (f) alteration of land (including clearing vegetation, grading, changes to landscaping preparation or construction of services and trails, etc.).

2.4 Exemptions

A Development Permit under this Schedule is not required for the following:

- (1) **Emergency** actions required to prevent, control or reduce an immediate threat to human life and safety, the natural environment and/or property. The City's Engineering Department must be notified of emergency actions immediately and an application for a Development Permit must be submitted after the emergency has concluded.
- (2) Where there is no associated rezoning, subdivision or building permit application required, the removal of trees and vegetation deemed hazardous to human life and property and such removal is in accordance with the *Burnaby Tree Bylaw* (Bylaw No. 10482), including any requirement for planting of replacement trees.

- (3) Alterations or renovations to the interior of an existing **permanent structure** within its existing foundation.
- (4) Repair or reconstruction of a building or other structure, if all of the following conditions are met:
 - (a) the building or structure will remain on its existing foundation;
 - (b) at least 25% of the building or structure, above its foundation, remains before repair or reconstruction begins;
 - (c) any repair to the existing foundation will not exceed 10% of the foundation's total area;
 - (d) the footprint of the building or structure, after repair or reconstruction is complete, will not be larger than its existing footprint or expand into the SPEA; and
 - (e) if the building or structure does not conform to requirements or conditions under the current Burnaby *Zoning Bylaw*, the non-conformance is lawful under the *Local Government Act*.
- (5) Public works and services and maintenance activities carried out by or on behalf of the City, provided the works, services or maintenance activities generally comply with the guidelines in this Schedule, meet Federal, Provincial or other government regulations, and are approved by the General Manager Engineering.
- (6) Park operations and the construction or expansion of utilities or parks infrastructure on City land, provided a building permit is not required and the operations, construction or expansion activities generally comply with the guidelines in this Schedule, meet Federal, Provincial or other government regulations, and are approved by the General Manager Engineering or General Manager Parks, Recreation and Culture following an internal review process.
- (7) The construction of bridges, watercourse crossings, docks, and viewing platforms, provided the construction meets Federal, Provincial and other government regulations, minimizes impacts to riparian areas, uses environmentally sensitive design, and provides fish passage.
- (8) Ecological restoration and enhancement projects, provided the projects meet Federal, Provincial or other government regulations and are approved by the General Manager Planning and Development, General Manager Engineering, or General Manager Parks, Recreation and Culture.
- (9) **Routine landscaping activities**, including maintenance of existing landscaping, such as mowing lawns, pruning trees and shrubs in accordance with accepted arboricultural practices, planting vegetation and minor soil disturbance that do not alter the general grade of the land or established buffers.
- (10) Permitted farming activity within the Agricultural Land Reserve (ALR) as defined in and protected by the *Farm Practices Protection Act*, or as defined by the *Agricultural Land Commission Act* and *ALR Regulations*, or agriculture use in the A1 District under the *Burnaby Zoning Bylaw*.
- (11) Cleanup of polluted sites near streams, provided the cleanup activities comply with the *Environmental Management Act* and *Contaminated Sites Regulations*.

- (12) Where information is provided, to the satisfaction of the General Manager Planning and Development, which demonstrate that the development activities on the portion of a parcel located outside the SPEA, will not impact the SPEA or the stream.
- (13) Development authorized through Preliminary Plan Approval for which a building permit has not been issued.
- (14) Development as specifically contemplated by, and in accordance with, the Environmental Review Committee decision and conditions set out in an approval issued by the Director Planning and Building pursuant to section 6.23(3) of Burnaby *Zoning Bylaw*, 1965.

3.0 Determining the SPEA

Part 4 - 4.2 of the Burnaby *Zoning Bylaw* sets out the minimum width, and in some cases the maximum width, of a SPEA (see Part 4 - 4.2, Tables 4 - 4.2a and 4 - 4.2b), subject to reductions or alternatives, if any, determined in accordance with this Schedule. This section 3.0 sets out two primary methods for determining the boundaries of the SPEA for a development site and in extenuating circumstances, a method for determining alternative SPEA boundaries.

An applicant for a Development Permit under this Schedule has the option to determine SPEA boundaries applicable to a development site using one of the following two methods:

- (a) using the parcel-specific SPEA boundaries provided by the City, as described in section 3.1 below; or
- (b) engaging a **Qualified Environmental Professional** (QEP) to determine the applicable SPEA boundaries, as described in section 3.2 below.

In extenuating circumstances, where a development would not be feasible if City parcel-specific or QEP-determined SPEA boundaries are applied, an applicant may establish alternative SPEA boundaries applicable to a development site. See section 3.3 below for the considerations and methodology.

3.1 City parcel-specific SPEA boundaries

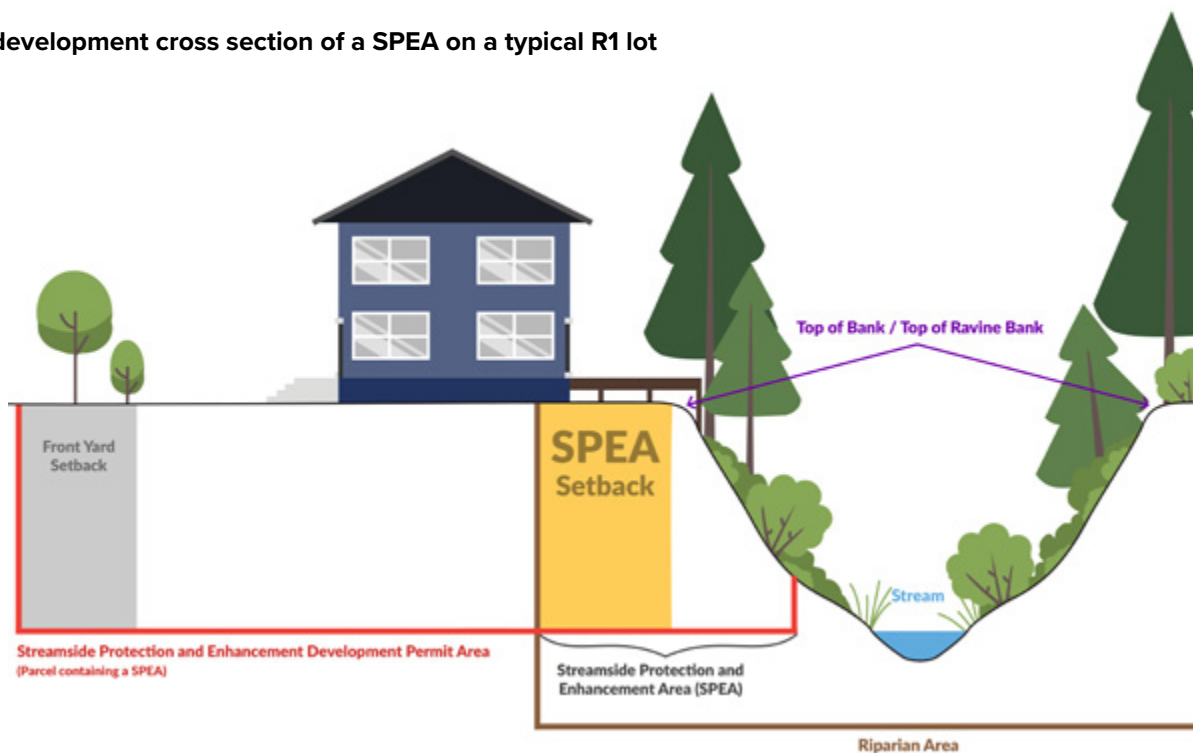
The City has calculated preliminary SPEA boundaries for most parcels with the **Streamside Protection and Enhancement Development Permit Area**. The calculations were made by applying the methodology outlined in the City's 'Technical Guide: Methodology for Determining the SPEA' document to stream reaches of similar characteristics. The City can provide a final determination of the SPEA boundary upon receiving a development inquiry.

Applicants may choose to use the City's parcel-based SPEA boundaries when applying for a Development Permit under this Schedule. This information is available from the City's Planning and Development Department.

3.2 QEP-Determined SPEA boundaries

An applicant may choose to engage a QEP to determine the SPEA boundaries applicable to a development site. The QEP must prepare an Environmental Assessment Report that applies Part 4 - 4.2 of the *Burnaby Zoning Bylaw* and follows the methodology for determining SPEA boundaries in the City's 'Technical Guide: Methodology for Determining the SPEA'. The SPEA boundary calculated by the QEP must be approved and accepted by the City as part of the Development Permit application. Once approved, the SPEA boundaries can be used to plan development on the parcel in accordance with the guidelines in this Schedule.

Pre-development cross section of a SPEA on a typical R1 lot



3.3 Alternative SPEA boundaries

- (1) An applicant may propose alternative SPEA boundaries if the City parcel-specific or QEP-determined SPEA boundaries would result in the development not being feasible, taking the following into considerations:
 - (a) Physical conditions of the land;
 - (b) Existing parcel sizes;
 - (c) Existing roads, trails, works or services; and/or
 - (d) Proposed roads, trails, works, or services needed to provide access or services to otherwise developable land or to connect to existing roads, trails, works, or services.
 - (e) Residential uses in the A1 district, in consideration of agricultural uses on site.
- (2) The following are acceptable alternatives for SPEA boundaries:
 - (a) altering the SPEA boundaries by averaging the width of the SPEA on a parcel while retaining the same total area of the SPEA, provided the boundaries may be shifted by no more than 5 metres less than or greater than the City parcel-specific or QEP- determined SPEA boundaries for the development site; or
 - (b) reducing the SPEA width and total area to accommodate the development permitted in the Zoning District for the development site.

In all cases, a proposal for alternative SPEA boundaries should at a minimum, meet or exceed, the level of protection required by the *Riparian Areas Protection Regulation* and the latest version of the *Riparian Areas Protection Regulation Technical Assessment Manual* published by the British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development.

- (3) The applicant must engage a QEP to prepare an Environmental Assessment Report to propose alternative SPEA boundaries, which proposal should:
 - (a) minimize the amount the SPEA that is reduced and provide supporting rationale based on the factors and considerations for why the reduction is proposed;
 - (b) avoid disturbance to **natural areas** and mature trees (including root zones) that may result from reducing the total area of the SPEA; and
 - (c) if section 3.3 (2) (b) applies, based on the total area that a SPEA is reduced as compared to the methods under section 3.1 or 3.2, apply a 2:1 offsetting habitat enhancement and restoration ratio to prepare a landscape plan to improve the ecological function of the riparian area on the development site, with the intent that the encroachment into the SPEA would be offset by habitat enhancement and restoration to achieve net ecological benefit on the development site.
- (4) In the R1 Small Scale Multi-Unit Housing (SSMUH) District, the proposal for alternative SPEA boundaries should consider the minimum eligible lot size for the R1 SSMUH District in comparison to the total remaining area of the parcel outside of the SPEA boundaries without reduction. If the available area outside of the SPEA exceeds the minimum eligible lot size, a proposal to reduce the SPEA boundaries must consider other factors set out in section 3.3 (1).
- (5) In the R1 SSMUH District, reducing the SPEA boundaries to accommodate useable rear yard space may be considered if restricting development and a usable yard to the portion of the development site outside of the SPEA boundaries based on the City parcel-specific or QEP-determined SPEA boundaries would not be feasible.

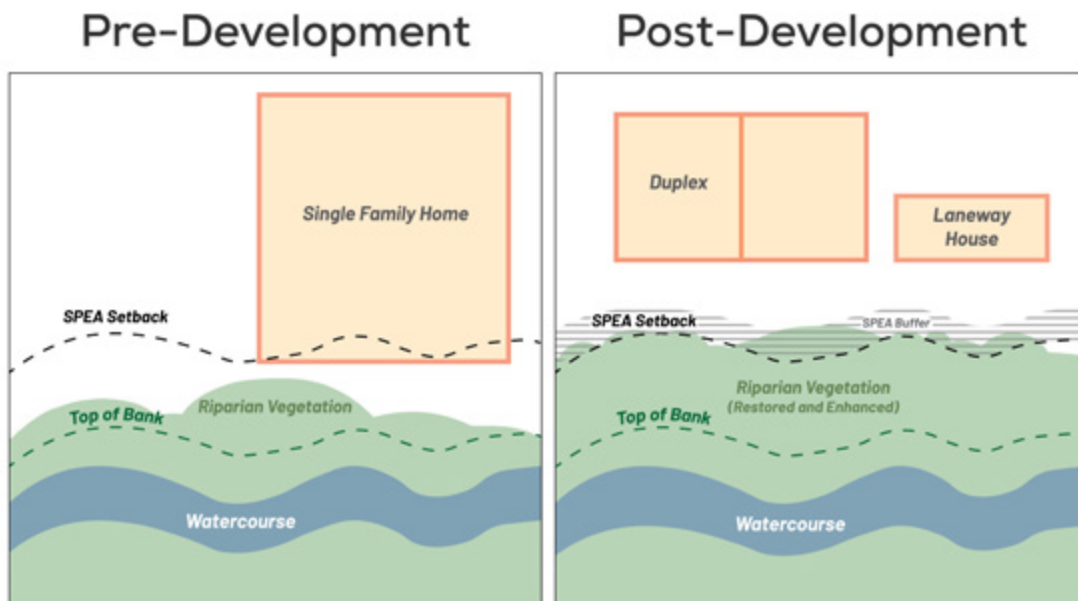
4.0 Development Guidelines

The following guidelines will be applied to the review of Development Permit applications and for determining requirements and conditions to be included in Development Permits under this Schedule, including the requirement for security.

4.1 Locate development outside of the SPEA

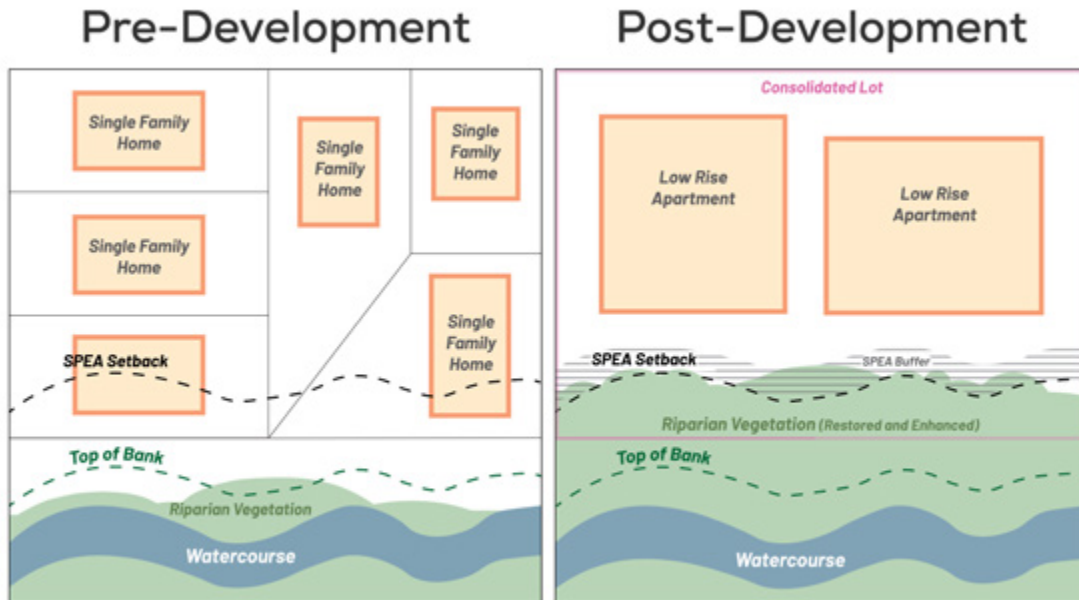
- Locate all **development**, including buildings, roadways, parking areas, driveways, soil removal or fill placement, outdoor yard space, stormwater management, and flood proofing measures, outside of the SPEA. Locate infrastructure servicing corridors outside of the SPEA. If locating infrastructure services corridors in the SPEA is unavoidable, design the corridor to minimize impacts to vegetation within the SPEA.
- Overhanging or projecting structures such as balconies, decks, eaves, and swimming pools are not permitted in the SPEA.
- Create a minimum buffer of 5 metres between buildings and SPEA boundaries to allow for regular building and site maintenance for all Zoning Districts, except for the R1 SSMUH District, which will be a minimum of 3 metres. In situations where the minimum buffer distances stated above cannot be met, a QEP may recommend an appropriate buffer to protect the ecological integrity of the SPEA, subject to the acceptance of the City.

Pre (left) and post (right) development scenario for a typical R1 lot



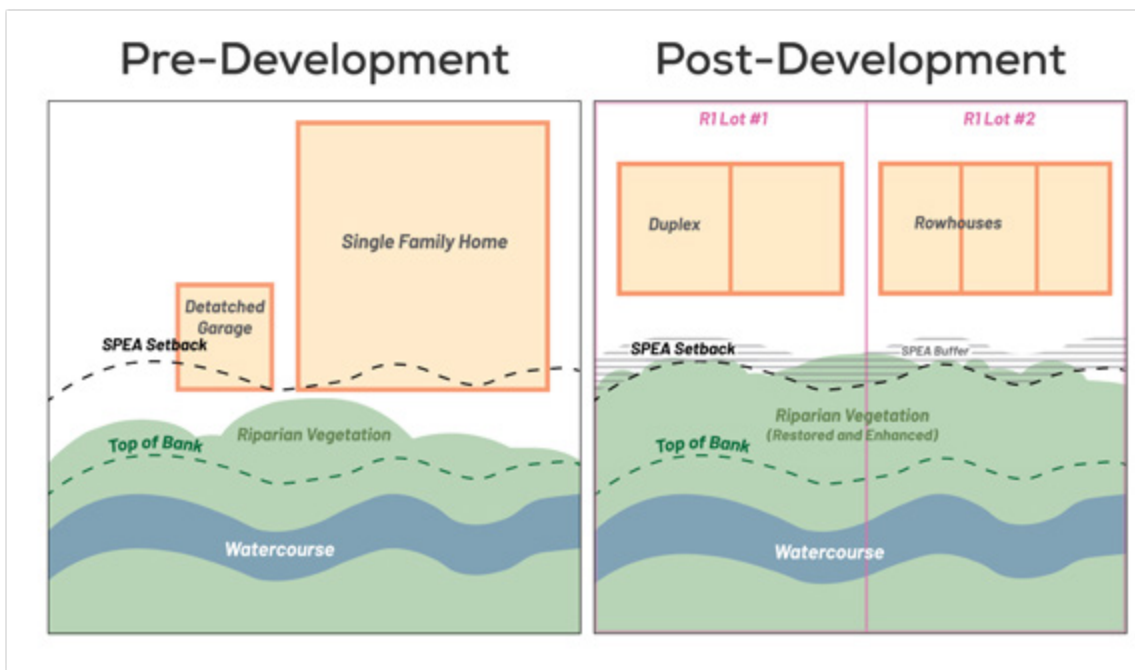
(d) Where lands are designated as Transit-Oriented Areas (TOA) in the Burnaby Transit-Oriented Areas Designation Bylaw, land consolidation or assembly is encouraged to create a feasible development outside of the SPEA boundaries determined based on section 3.1 or 3.2 of this Schedule.

Pre (left) and post (right) development scenario for a lot designated as TOA with a SPEA



- (e) For subdivision, any new parcels created should allow for establishment of SPEA boundaries based on section 3.1 or 3.2 of this Schedule and a feasible development footprint in accordance with the prevailing Zoning District or new Zoning District if the parcel is subject to a rezoning application. The creation of new lots for development should allow for protection, enhancement and restoration of the SPEA.

Pre (left) and post (right) subdivision scenario to create new lots outside the SPEA



4.2 Minimize long-term impacts to streams and SPEAs

- (a) Retain and protect all native understory vegetation within the SPEA while removing and controlling **invasive species** to enhance, restore and expand natural areas within the SPEA.
- (b) Retain and protect trees, including dead-standing wildlife trees, within the SPEA, including their root zones, unless a tree is deemed to be hazardous to human life and property, as determined by an arborist report.
- (c) Modify and retain hazard trees to function as wildlife trees, provided this approach mitigates the risk to human life and property, as determined by a certified tree risk assessor.
- (d) Replant and replace trees that are removed from the SPEA, in accordance with the *Burnaby Tree Bylaw* (Bylaw No. 10482), as amended. Tree species selected should be suitable for the site conditions and should consider future climate scenarios.

- (e) Assess the risk and hazard of windthrow affecting trees at the boundary of the SPEA if the development proposes tree clearing. A stand stability assessment and recommendations to protect the integrity of the SPEA will be required for sites resulting in newly exposed forest edges to be prepared by a registered professional forester.
- (f) Protect SPEA from unstable slopes associated with proposed or historic developments. If there are steep or potentially unstable slopes within the SPEA, or on or adjacent to the parcel of land, a geotechnical assessment is required to recommend development setbacks and the suitability and feasibility of developing the land for the proposed use. This may include sites adjacent to ravines, a SPEA width less than 15 metres, an area prone to flooding, or as required by the General Manager Planning and Development or General Manager Engineering.
- (g) Maintain the natural grade of the land within the SPEA and adjacent to the SPEA boundary. Ensure any unavoidable grading and soil removal or placement does not occur in the SPEA and/or negatively alter SPEA hydrology, form, and function. Any soils brought on-site should meet the BC Landscape Standards for soil quality.
- (h) Protect and enhance designated critical habitat for federally and provincially listed **Species and Ecosystems at Risk** found on the site within the SPEA.

4.3 Protect SPEAs and streams during building demolition and construction

- (a) Restrict access to SPEA during the entirety of demolition and construction by installing a temporary fence along the boundary of the SPEA. This fencing may be combined with tree protection fences as described in the *Burnaby Tree Bylaw* (Bylaw No. 10482). This temporary fence should be replaced with a permanent fence and signage after construction.
- (b) For development projects where the condition of the SPEA is severely degraded or non-functional, and where enhancement or restoration of the SPEA is required of the development, the degraded portion SPEA may be accessible and temporarily used as part of the construction phase. Application of this guideline will be on a project specific basis and will require suitable and feasible plans in place to mitigate impacts to the stream during the construction phase.
- (c) Follow guidelines and best management practices to protect birds and their nests in accordance with the provincial *Wildlife Act* and the *Federal Migratory Birds Convention Act*. The nests of some species are protected year-round.
- (d) Any work within a **fish-bearing stream** must be completed during the regional instream window as determined by the Province, and with the appropriate permits. This may include submitting notifications and obtaining additional permits from the Province or the Federal government.
- (e) Plan construction-related activities adjacent to riparian areas during favourable weather and low water conditions to avoid sedimentation.
- (f) All invasive species identified within the SPEA must be controlled prior to any soil movement or equipment access. Care must be taken to ensure invasive species are not spread during construction. Follow regional best management practices to manage any invasive species found on-site.
- (g) All invasive species material should be disposed of off-site following regional best management practices for that species.

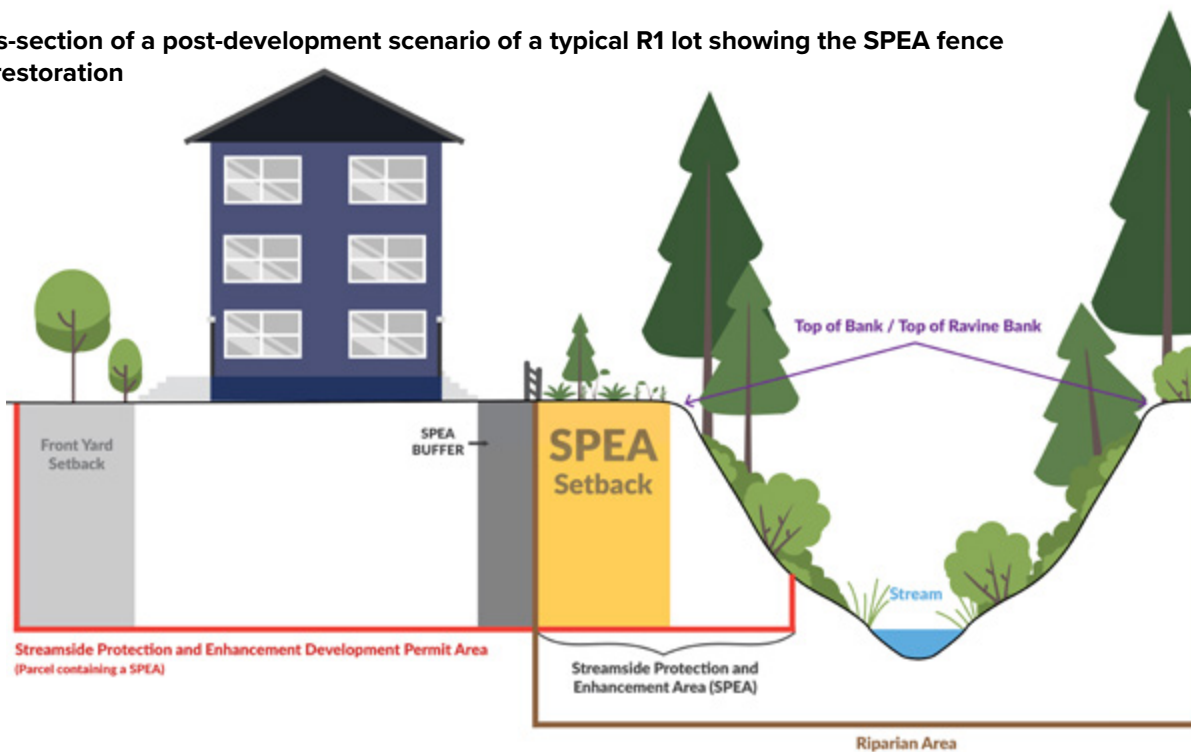
- (h) Incorporate erosion and sediment control best management practices to prevent sediment from entering nearby watercourses and their riparian areas. Site clearing and development must be undertaken to ensure that stream bank stability is not compromised, and that sediment-laden water does not enter downstream watercourses.
- (i) The City requires an Erosion and Sediment Control (ESC) Permit for all types of land development, except for R1 SSMUH District developments. Plans submitted for the ESC Permit should show the SPEA boundary and should include Best Management Practices to protect the SPEA and the stream from erosion and sedimentation during the construction phase.
- (j) In lieu of an ESC permit, an ESC plan for R1 SSMUH District developments should be prepared in accordance with Best Management Practices to protect the SPEA and stream and make recommendations for monitoring the effectiveness of the measures for protecting the SPEA during the construction phase
- (k) Projects may require additional senior government approvals (e.g. provincial *Water Sustainability Act*, *Contaminated Sites Regulation*, *Canadian Environmental Assessment Act*, *Fisheries Act*, etc.). It is the proponent's responsibility to comply with all provincial and federal *Acts* and complete all relevant notifications at the appropriate phases of development. Confirming compliance with senior government approvals may be included as a condition of the development permit.

4.4 Enhance, restore and protect SPEAs

- (a) Enhancement, restoration and protection of the SPEA is required of all new development. The scope and complexity of enhancement and restoration, as set out in a SPEA Restoration and Enhancement Plan prepared by a QEP, may vary depending on the type of development, if the SPEA boundary is to be altered or total area of the SPEA is to be reduced, and the condition of the features and functions of the SPEA, including the level of invasive species infestation.
- (b) Enhance and restore the SPEA by removing and controlling the spread of invasive species, by planting **native species** within existing natural areas and by expanding the spatial extent of natural areas within the SPEA by planting, in accordance with applicable best practices, when land is developed.
- (c) Follow regionally established best practices for removal and management of invasive species in SPEAs when preparing a landscape plan for the SPEA.
- (d) Use only native species suitable for the site's current and future growing conditions in the SPEA. Anticipated impacts of climate change on the site should be considered when selecting suitable plants.
- (e) Remove non-native soil fill, structures, and materials from the SPEA as part of restoration activities. Sourcing suitable growing medium and modifying sub-soils, as recommended by a QEP, to create optimal growing conditions for newly planted native species, may be required.
- (f) Consider installing a temporary irrigation system for enhanced and restored SPEAs to ensure survival and establishment of newly planted species, as recommended by a QEP.
- (g) Protect the SPEA by installing permanent fencing along the SPEA boundary and signage that identifies the purpose of the area as a habitat conservation area.
- (h) Protect the SPEA by registering a restrictive covenant and statutory right-of-way in favor of the City as part of the Development Permit.

- (i) Monitor and maintain the SPEA to ensure planting survival, stormwater management, ecological restoration, and other factors. The length of this monitoring period will be determined by the City, with a minimum requirement of 3 years for the R1 SSMUH District developments and 5 years for all other Zoning Districts. Specific monitoring and maintenance requirements, including but not limited to regular invasive species treatment and control during the growing season, expected survival rates and replanting requirements, and temporary irrigation, will be as recommended by a QEP and in accordance with applicable best practices.

Cross-section of a post-development scenario of a typical R1 lot showing the SPEA fence and restoration



- (j) Provide security in accordance with the *Development Procedures Bylaw* to ensure the SPEA Restoration and Enhancement Plan, including installation, monitoring and maintenance for the specified time-period, is successfully completed.
- (k) return of this security will be as follows:
 - (i) 40% upon completion of the works and written confirmation from a QEP of compliance with the SPEA Restoration and Enhancement Plan.
 - (ii) 60% held back and refunded in equal increments on an annual basis, at the end of each year of the monitoring and maintenance period, upon receiving written confirmation in a report prepared by a QEP of successful completion, including any remedial actions from previous years. A year of the monitoring and maintenance period will include a full growing season (April to October). The QEP monitoring report must be submitted by December 15.
- (l) If and when requested by the City, a QEP must prepare a plan with recommendations for the owner to manage the SPEA in the medium and long term, beyond the initial monitoring and maintenance period. At a minimum, this plan will set management expectations for a 10-year and 25-year time horizon and may consider issues such as hazard trees, invasive species, replacement planting, public trails, and budgeting (for a strata, property manager or individual owner).

5.0 Glossary

Active floodplain	As defined in Part 4 - 4.2 (1) of the Burnaby <i>Zoning Bylaw</i>
Channelized streams	As defined in Part 2 of the Burnaby <i>Zoning Bylaw</i>
Emergency	means a present or imminent event or circumstance that is caused by accident, fire, explosion, technical failure, or the forces of nature and requires prompt coordination of action or special regulation of persons or property to protect the health, safety, or welfare of a person or to limit damage to property.
Existing or potential vegetation	As defined in Part 4 - 4.2 (1) of the Burnaby <i>Zoning Bylaw</i>
Fish	As defined in Part 4 - 4.2 (1) of the Burnaby <i>Zoning Bylaw</i>
Stream, fish-bearing	As defined in Part 4 - 4.2 (1) of the Burnaby <i>Zoning Bylaw</i>
Development	As defined in Part 2 of the Burnaby <i>Zoning Bylaw</i>
Ditch	As defined in Part 2 of the Burnaby <i>Zoning Bylaw</i>
Invasive species	means a species that is not native or is outside of its natural distribution and which is negatively impacting the environment, human health, and or the economy.
Routine landscaping activities	means landscaping or land stewardship activities limited to managing or removing invasive plants, weeding, pruning, or the maintenance of existing open yard space such as grass cutting, gardening, maintaining landscaped features, when completed manually, but not including the removal of established native plant species.
Native species	means a species which is present without direct or indirect human intervention and is present within its natural range and limited by its natural dispersal.
Natural area	As defined in <i>Zoning Bylaw</i> Part 2
Stream, non-fish bearing	As defined in the <i>Zoning Bylaw</i> Part 4 - 4.2 (1)
Stream, non-permanent	As defined in the <i>Zoning Bylaw</i> Part 4 - 4.2 (1)
Stream, permanent	As defined in the <i>Zoning Bylaw</i> Part 4 - 4.2 (1)
Permanent structure	As defined in the <i>Zoning Bylaw</i> Part 4 - 4.2 (1)

Qualified Environmental Professional (QEP)

means:

- (1) the individual is registered and in good standing in British Columbia with an appropriate professional organization constituted under the *Professional Governance Act*, acting under that association's code of ethics and subject to disciplinary action by that association;
- (2) the individual's area of expertise is recognized by the City as one that has demonstrated education, expertise, accreditation and knowledge relevant to sensitive environments, ecosystems and/or riparian/ streamside management and is capable in preparing all or part of an assessment report in respect of that development proposal; and
- (3) the individual is acting within that individual's area of expertise.

Ravine

As defined in the *Zoning Bylaw* Part 4 - 4.2 (1)

Riparian area

As defined in *Zoning Bylaw* Part 2

Species and Ecosystems at Risk

means a specific species or group of species which have been identified as extirpated, endangered, threatened, or of special concern as defined by the federal *Species at Risk Act*.

Stream

As defined in *Zoning Bylaw* Part 2

Streamside

means the same as riparian area, as defined in *Zoning Bylaw* Part 2

Streamside Protection and Enhancement Development Permit Area

means collectively those parcels that comprise the development permit area designated in the Burnaby 2050 Official Community Plan, as amended.

Streamside Protection and Enhancement Area (SPEA)

As defined in the *Zoning Bylaw* Part 4 - 4.2 (1)

Top of bank

As defined in the *Zoning Bylaw* Part 4 - 4.2 (1)

Top of ravine bank

means the first significant break in a ravine slope where the break occurs such that the grade beyond the break is flatter than 3:1 for a minimum distance of 15 metres measured perpendicularly from the break, and the break does not include a bench within the ravine that could be developed.

Wetland

means land that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, plant species that are typical of inundated or saturated soil conditions, including swamps, marshes, bogs, fens, estuaries, and similar areas that are not part of the active floodplain of a stream, and where such land is connected by surface flow to a stream or watercourse or as defined by provincial *Water Sustainability Act*, as amended, *Riparian Areas Regulation* and *Technical Assessment Manual*, as amended.