

Guide to Preparing an Environmental Assessment Report

Development Proponents must provide an Environmental Assessment Report in support of their development application to the City if proposing development on a parcel of land subject to a Streamside Protection and Enhancement (Streamside) Development Permit (DP).

The Environmental Assessment Report will confirm the boundary and spatial extent of the **Streamside Protection and Enhancement Area (SPEA)** and demonstrate how the development proposal complies with the Streamside DP Area Guidelines.

- Part 4 - 4.2 of the Burnaby Zoning Bylaw sets out the width of the SPEA based on attributes of the **stream** and **riparian area**.
- Streamside DP Area Guidelines are found in Schedule II of the Burnaby Zoning Bylaw and set out how the SPEA is protected, enhanced and restored when land is developed, as well as when an alternative SPEA boundary may be considered.

All Environmental Assessment Reports are to be prepared by a **Qualified Environmental Professional (QEP)** with expertise appropriate to the evaluation being performed. It is the responsibility of the QEP to ensure that other specialized QEPs and their respective reports are consulted where appropriate.

Terms defined in the Zoning Bylaw have been bolded throughout this document for ease of reference.

All Environmental Assessment Reports must include the following sections:

1.0 Determining the Parcel-Specific SPEA

This section aligns with Streamside DP guidelines, Section 3.0 Determining SPEA and sub-sections 3.1 and 3.2.

A QEP must conduct a site reconnaissance of the lands to confirm the presence or absence of existing mapped streams (including wetlands and ditches) and any previously unmapped **streams** within or adjacent to the lands.

Once all the **streams** have been identified, their respective SPEAs (SPEA boundaries) must be determined by following the methodology in the Zoning Bylaw Part 4 - 4.2 and the guidelines in Section 3.0 of the Streamside DP Guidelines.

The Environmental Assessment Report must identify which method (3.1 or 3.2) was used to determine the SPEA. Follow the guidelines in section 3.3 if there is supporting rationale for an alternative SPEA.

Where the QEP has classified a **stream** as a **ditch (fish bearing or non-fish bearing)**, justification must be provided for this conclusion.

2.0 Description of Fisheries Resources Values and Present SPEA Condition

This section aligns with Streamside DP Guidelines:

- **Section 3.0 Determining SPEA,**
- **Section 4.2 Minimize long-term impacts to streams and SPEAs**
- **Section 4.4 Enhance, restore and protect SPEAs**

Provide a summary of the species that frequent the **stream**, types of **fish** habitat present (e.g. spawning, rearing, over-wintering, or migration), the **fish** classification of the **stream**, and identify and detail existing riparian vegetation and trees and their condition onsite.

Provide a description of the present condition of the riparian habitat present within the SPEA including the presence of **invasive plants species**, a map showing the locations and areas of infestations, and a brief description of enhancement and restoration opportunities for the SPEA. A detailed SPEA restoration and enhancement plan is an additional submission requirement for the Streamside DP.

Note that the City of Burnaby provides **fish** presence / absence data as a GIS layer in Burnaby Map, referencing typical **fish bearing** and **non-fish bearing** notation (Class A red coded, Class B yellow coded). This data has been used by staff to determine parcel specific SPEA boundaries. The QEP may revisit the classification as part of the environmental assessment report by providing a field assessment of **stream** conditions, habitat, and potential barriers, as well as spatial and temporal connection and value for fish of food and nutrients derived from the waterbody, with sufficient justification and validation.

Identify Schedule 1, Federally-protected *Species-At-Risk Act* or Provincial Red- or Blue-Listed plant or animal species and their critical habitats including shrub and ground cover communities and any species, or habitat feature, identified as requiring year-round protection as identified in the *Provincial Wildlife Act*, *Migratory Bird Regulation*, or other relevant legislation. Include a brief description of opportunities to protect and enhance this habitat through the development of the site to be elaborated in the SPEA Restoration and Enhancement Plan.

3.0 Description of Development Proposal

This section aligns with Streamside DP guidelines:

- **4.1 Locate development outside of the SPEA**
- **4.2 Minimize long-term impacts to streams and SPEAs**

3.1 Development activities

This section should clearly outline all development activities proposed on the subject parcel. The QEP must identify the proposed land use (residential, commercial, mixed use, institutional, industrial, or other), the zoning and the Official Community Plan designation, and must include sufficient detail to describe all components of the proposed development. This must include all development activities that are ancillary to the development, including but not limited to:

- Outbuildings, sheds, gazebos and other secondary / ancillary structures,
- Driveways, parking areas, impervious and semi-pervious pathways/walkways,
- Site servicing for sewer, water and sanitary,
- Public trails and **stream** crossings in accordance with community plans.
- Movement of soil / regrading, installation of retaining walls and other “hard” landscaping, and
- Decks, cantilevered / overhanging structures

In this section, the QEP should also identify the anticipated impacts to the SPEA through the proposed development and recommend mitigation measures.

3.2 Survey Plan and Site Plan

A clear and legible site plan must be included. The site plan must include features captured on a legal survey of the property, including the **top of bank** or **top of ravine bank** of any **streams**, as well as existing buildings, structures and legal easements on the parcel. The site plan must be of the appropriate size and scale to show the information pertinent to the SPEA at the appropriate scale and detail. An orthophoto must also be included showing the SPEA.

The site plan must show all proposed development, including both primary development (e.g. buildings) and all ancillary development (as described in previous section). The site plan must be at an appropriate scale for review and consistent with plan requirements of other City departments. The site plan must show the width and boundary of the SPEA, including setbacks from either the surveyed **top of ravine bank** or **top of bank** (including the **active floodplain**).

5.0 Photos

Photographs of the site condition including the area proposed for development are required. Provide as many photos as are necessary to illustrate the condition of the SPEA and any significant fish habitat features, **natural areas** and degraded areas, including significant/notable vegetation. Photos must clearly show the location of the proposed development in relation to the stream(s) under assessment and the area immediately surrounding the development footprint. This should include photos taken from the upland area towards the **stream** and vice versa. The QEP should locate photo reference points that are easily located and repeatable, for the purposes of post-development monitoring.

6.0 Additional Assessment Report Contents

This section aligns with Streamside DP guidelines, Section 3.3 (1 to 5).

Where the establishment of the SPEA is proposed as not being feasible per section 3.3 of the Streamside DP Guidelines (alternative SPEA boundaries), the following information is required, for inclusion in the Environmental Assessment Report and supporting reports and assessments to demonstrate compliance with Section 3.3 (1 to 5), as applicable:

- Supporting rationale for why an alternative SPEA is proposed
- Inclusion of the alternative SPEA on a site plan and a discussion of how the alternative SPEA avoids disturbance to **natural areas** and retains and protects mature, native trees
- Confirmation that the area of encroachment into the SPEA can be offset by enhancement and restoration on a 2:1 area basis
- Confirmation that the alternative SPEA is consistent with any other supporting reports and assessments
- Confirmation by the QEP that the level of SPEA protection will meet or exceed the level of protection that would result from application of the Detailed Assessment methodology (including measures to protect the SPEA) of the Provincial *Riparian Areas Protection Regulation*.

7.0 Protecting the SPEA during building demolition and construction

This section aligns with Streamside DP guidelines, Section 4.3 (a to k).

This section also identifies the actions that will be taken to ensure all measures to protect the SPEA identified in section 3 are completed as described.

8.0 Supporting Documents that can inform an Environmental Assessment Report

The reports noted here may be required to demonstrate compliance with all Streamside DP guidelines, Sections 4.1 to 4.4.

An Environmental Assessment Report can also be informed by the following reports and documents prepared by appropriately qualified professionals, as required by the City of Burnaby:

- (1) Survey Plan, including topography (as required), **top of bank** or **top of ravine bank**, and significant trees
- (2) A Site Plan, based on the Survey Plan, describing the location of existing and proposed development
- (3) Arborist Report, including an assessment of hazard trees, wildlife trees, and stand stability or windthrow risk if required
- (4) Geotechnical Report, to assess the suitability and feasibility of the lands for the proposed development, including recommendation of development setbacks and management practices in relation to steep slopes and ravines
- (5) Grading Plan
- (6) Civil design, including but not limited to servicing and grading
- (7) Erosion and Sediment Control Plan
- (8) Construction Environmental Management Plan
- (9) A SPEA Restoration and Enhancement Plan

9.0 Report Sign off Certification

The Environmental Assessment Report and any supporting documents (as outlined in the previous section) must be signed and sealed by the QEP or appropriately qualified professional(s).