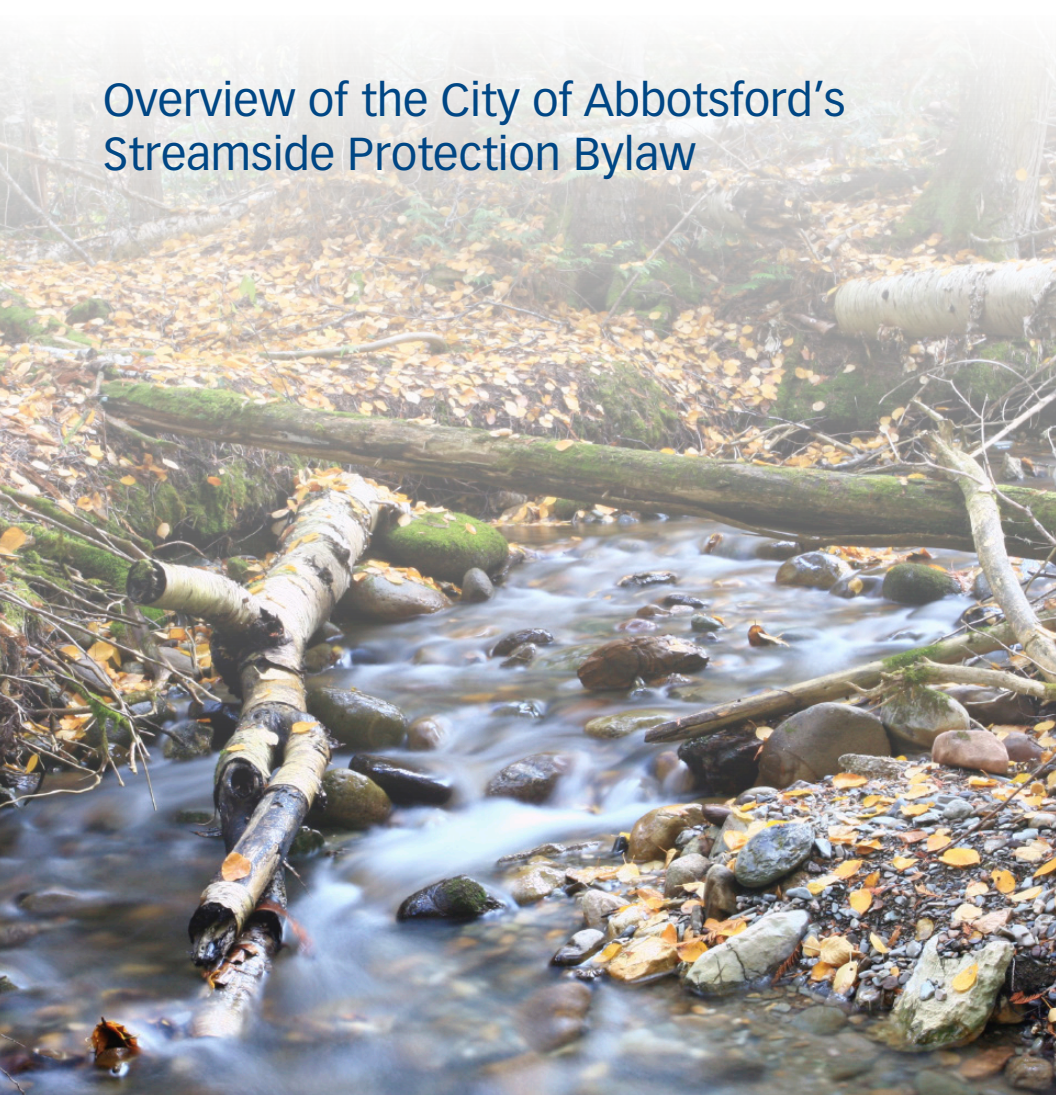


# Residents Guide to Living Near Streams and Ravines

Overview of the City of Abbotsford's  
Streamside Protection Bylaw



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## Introduction

This pamphlet provides information to residents about living and building near streams and ravines. It explains what activities are permitted within Streamside Protection and Enhancement Areas (SPEAs, i.e. setback area/riparian area) and how the SPEA boundary is determined. It also explains how residents can protect fish and wildlife habitat and reduce the risk of channel and ravine erosion.

In 2005 the City adopted the *Streamside Protection Bylaw* (SPB), which regulates activity within the SPEA for residential, commercial and industrial land uses (including those within the Agricultural Land Reserve) and provides SPEA widths for various categories of fish habitat.

## What is a Stream?

A stream includes a watercourse or source of water supply, whether usually containing water or not, a pond, lake, river, creek, brook, ditch, and a spring or a wetland that is integral to a stream and provides fish habitat. Streams may still be fish habitat despite being channelized and/or being dry during portions of the year. A Qualified Environmental Professional can determine if a stream is protected by the SPB or not.

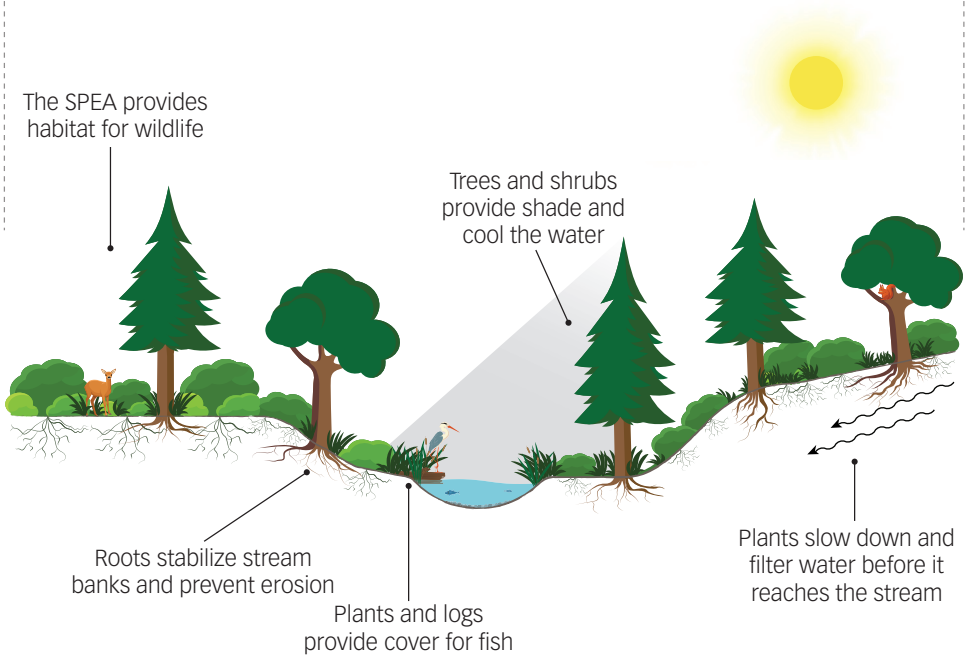
## What is a Streamside Protection and Enhancement Area (SPEA)?

A SPEA is an area adjacent to a stream that links aquatic (stream channel) to terrestrial (land) ecosystems and includes both existing and potential streamside vegetation. It is also commonly referred to as a riparian area or stream setback. **SPEAs are non disturbance areas** (i.e. no development activity of any kind is permitted within them), except for a few minor exemptions noted on page 6. See page 10 for detailed information on what you can/cannot do in a SPEA.



# Illustration of a Streamside Protection and Enhancement Area (SPEA)

Vegetation contributes organic matter and insects to the stream where it is used in the aquatic food chain



## Why protect streamside vegetation?

Streamside vegetation is critical for healthy streams and for protecting adjacent land, and provides the following benefits:

- **Stabilizes the stream bank and protects water quality:** dense vegetation stabilizes stream banks and reduces erosion. Vegetation also slows water flowing across the land so it has an opportunity to soak into the soil which filters the water and reduces flood risk.
- **Supports the aquatic food web:** aquatic insects feed on the leaves and woody matter that drops from streamside vegetation. Fish feed on these aquatic insects along with terrestrial insects that fall into the water from the vegetation.
- **Improves fish habitat quality:** tree roots and shrubs along the banks provide fish with hiding places away from predators. Also when trees fall into a stream they create riffles and pools. Riffles are used for salmon spawning while pools are used by juvenile salmon.
- **Shades the stream:** vegetation reduces the water temperature during the hot summer months, which in turn helps fish since cooler water holds more oxygen which fish need to breathe.
- **Provides wildlife habitat:** over 80% of the wildlife in Abbotsford use streamside areas during some portion of their life. Streamside vegetation provides food, shelter and nesting sites for this wildlife.





## Where does the *Streamside Protection Bylaw* apply?

The Bylaw applies to any residential, commercial or industrial land use that would disturb the vegetation or soil within 30m of a stream's top of bank.

## Are there any exceptions?

The following activities are exempt from the Bylaw:

- Interior renovations and non-structural exterior renovations (i.e. those renovations that do not expand the footprint of an existing building);
- Ecological restoration of a SPEA according to a restoration plan that has been prepared to a professional standard and approved by the City (e.g. planting native plants, removing invasive plants, installing nest/bat boxes or other habitat structures, removing garbage, etc.). This exemption is not applicable to rehabilitation works required as a result of an infraction of the SPB or other municipal, provincial or federal legislation;
- Emergency actions required to prevent, control or reduce an immediate unacceptable threat to human life, the natural environment, or public or private property (e.g. remove trees that are deemed to be hazardous by a Certified Arborist);
- Public works and services undertaken by, or on behalf of, the City or Regional District, provided the activity complies with senior government standards and requirements;
- Use of private roads, parking areas, landscaping, or outdoor commercial or industrial storage that existed prior to the adoption of the Bylaw on June 20, 2005;
- Renovation of permanent structures that existed prior to the adoption of the Bylaw;
- Regular maintenance of a property, but not including vegetation removal, or construction of any sort (e.g. patios, fences, gazebos, etc); and
- Agricultural uses (NOTE: the Bylaw still applies to residential, commercial, and industrial activities within the ALR).

## Hazard Trees

Hazard trees include standing dead trees that are vertical or lean towards the development area, as well as some live trees with large dead branches or tops. It is recognized that hazard trees within a SPEA may pose an unacceptable risk to human life and/or property and require treatment or removal. In this respect, if you are concerned that a tree poses a hazard to people or property we recommend you retain a Certified Arborist to assess the hazard potential of the subject tree(s). Upon receipt of their report, please contact the City's Planning and Development Services department to determine if you qualify for exemptions from the Tree Protection Bylaw and the Natural Environment DP.

Streamside Protection and Enhancement Areas (SPEAs) vary based on the watercourse type, fish presence, and permanency, as per the following matrix:

Watercourse Type	Existing or potential <sup>2</sup> streamside vegetation conditions	Streamside Protection and Enhancement Area width <sup>1</sup>		
		Fish Bearing	Non Fish Bearing	
			Permanent	Non-Permanent
Wetlands and all other watercourses	<b>Category 1.</b> Continuous areas $\geq$ 30 m or discontinuous but occasionally > 30 m to 50 m	At least 30m		At least 15m
	<b>Category 2.</b> Narrow but continuous areas = 15 m, or discontinuous but occasionally > 15 m to 30 m	Greater of: -existing width, or -potential width, or -15m	15m	
	<b>Category 3.</b> Very narrow but continuous areas up to 5 m, or discontinuous but occasionally > 5 m to 15 m		At least 5m & up to 15m	
Ravines >60m in width <sup>3</sup>	N/A	10m		
Ditches	N/A	2 times channel width <sup>4</sup> (max. 10m, min 5 m)	2m	

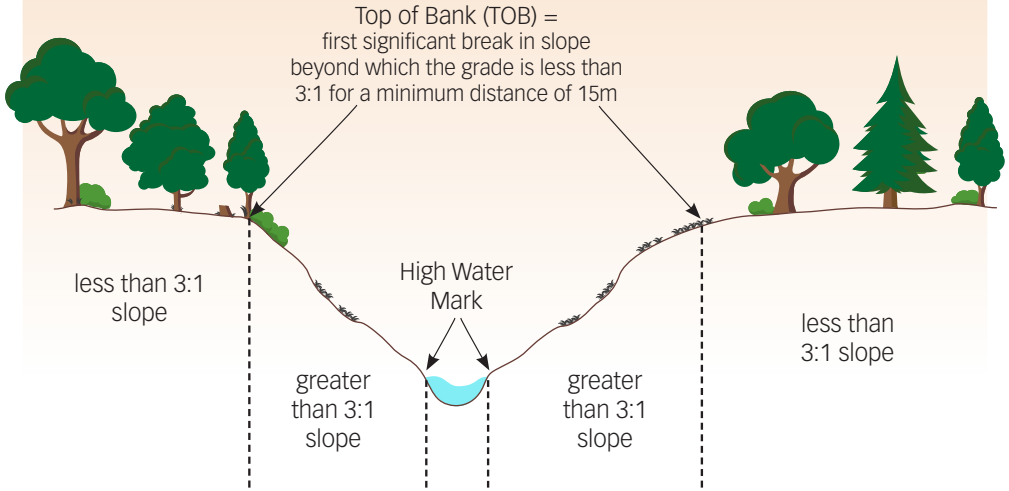
<sup>1</sup>Measured from the Top of Ditch Bank for Ditches and from the Top of Bank for Streams and Wetlands.

<sup>2</sup>Potential vegetation is considered to exist if there is a reasonable ability for regeneration either naturally or with assistance through enhancement, and is considered to not exist on part of an area covered by a permanent structure.

<sup>3</sup>Measured from Left Top of Bank to Right Top of Bank, excluding the stream channel.

<sup>4</sup>Channel Width is determined by the width of the ditch at the midpoint between the ditch invert and the top of the ditch bank.

# How do you measure Top of Bank?





## Development in the SPEA

The City encourages all development to comply with the *Streamside Protection Bylaw*. However, there may be occasions when impacts to the SPEA are required due to limited site developability (e.g. the lot will otherwise be sterilized, inability to re-configure the development due to irregular lot configuration, etc.) and where all options to minimize encroachment into the SPEA have been exhausted (e.g. zoning bylaw variances, relaxations to road standards, etc).

In these circumstances, a property owner can make an application for a staff-approved Development Permit (DP) or a Council-approved Development Variance Permit (DVP), depending on the nature of the proposed development.

**Development Permits:** development is approved by staff via a DP where development is limited to works associated with the following:

- *Water Sustainability Act* (WSA) Notifications: where development is proposed that is entirely associated with a Notification under the WSA
- Temporary Impacts: where temporary impacts are proposed and the impacts are mitigated
- Minor Flexing: where the SPEA is proposed to be modified such that there is no loss in the total area of the SPEA, and the minimum distance from top of bank is reduced by no more than 5 meters and increased by no more than 10 meters
- Restoration of a Non-Compliance: where restoration is required to remedy a violation of the Bylaw

**Development Variance Permits:** development must be approved by Council via a DVP where development is associated with the following:

- WSA Change Approval: where development is proposed that is associated with a Change Approval in accordance with the WSA
- Major Flexing or Permanent Losses: the City encourages all development to comply with the SPB or to minimize their impacts by utilizing minor flexing. However, there may be occasions when a major flex or permanent loss of SPEA area is required due to limited site developability and where it can be demonstrated that the Mitigation Hierarchy has been utilized to avoid and mitigate impacts.

## What can I do in a SPEA?

- Remove invasive plants for the purposes of habitat restoration. See this website for info on which ones are invasive:

<http://bcinvasives.ca>

- Plant more native plants. For more information on what species and how to plant see the RAR Revegetation Guidelines for Brownfield Sites, available here:

[http://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/fish-fish-habitat/riparianareas-regulations/rar\\_reveg\\_guidebk\\_sept6\\_2012\\_final.pdf](http://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/fish-fish-habitat/riparianareas-regulations/rar_reveg_guidebk_sept6_2012_final.pdf)

- Install nest/bat boxes or other habitat structures (e.g. woody debris)
- Explore nature
- Remove trees that are deemed to be hazardous by a Certified Arborist
- Remove garbage
- With prior permission from the City through either a DP or DP Exemption, construct a small path in accordance with this document:

<http://www.stewardshipcentrebc.ca/portfolio/access-near-aquatic-areas/>



## What can't I do in a SPEA?

- Construct buildings or structures (e.g. gazebo, deck, shed, septic field, pool, retaining walls, etc.)
- Install non-structural impervious or semi-impervious surfaces (e.g. driveways, patios, sidewalks, etc.)
- Construct roads, trails, docks, wharves and bridges
- Install flood protection works
- Install sewer or water services
- Install drainage systems or utility corridors
- Remove, deposit or disturb soils
- Remove, alter, disrupt or destroy native vegetation (including trees, shrubs and understory plants)
- Plant ornamental (i.e. non-native) plants or allow non-native plants from your garden to spread into the SPEA
- Allow your pets to utilize the area with such frequency that they impact vegetation through trampling
- Use pesticides, unless they are for removing invasive plants and prior permission is given by the City
- Hunt
- Store any equipment, materials, etc.
- Place recreational or play structures (e.g. trampolines, swing-sets, fire rings/pits, etc.)
- Dispose of garbage or yard waste (use a green waste pickup service instead)
- Remove the fencing protecting the SPEA or the signage on the fence
- Use motorized vehicles (e.g. dirt bikes, ATVs, etc.)





## City of Abbotsford

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[www.abbotsford.ca](http://www.abbotsford.ca)

version: August 2019

### FOR MORE INFORMATION

The staff in the Planning and Development Services department are happy to assist and help you comply with the Streamside Protection Bylaw. If you have a question about please contact an Environmental Coordinator at 604-864-5510 or through email at [env-info@abbotsford.ca](mailto:env-info@abbotsford.ca)

For more detailed information on how to develop near streams and ravines, please refer to the City document *Developing Near Streams and Ravines* available online at [abbotsford.ca](http://abbotsford.ca).