

27. STREAMSIDE DEVELOPMENT PERMIT AREA

CATEGORY

“a” (protection of the natural environment, its ecosystems and biological diversity)

DEFINITIONS

Refer to the Definitions section below for the meaning of the terms used. Defined terms are shown in italics. The definitions are specific to the Streamside Development Permit Area.

AREA

The Streamside Development Permit Area applies to those *streams* identified on Map 27. For more detailed mapping, refer to Schedule 2 to Appendix N of the Official Community Plan By-law, 1993, No. 7044. For a *stream* that is not located within a *ravine*, the Development Permit Area is 30 m wide (horizontal distance), measured from the *high water mark*, as shown in Figure 1. Where a *stream* is located within a *ravine*, the Development Permit Area extends from the *high water mark* to a point 30 m upslope of the *top of the ravine bank* as shown in Figure 2.

Within the Development Permit Area (refer to Figure 3), there is a *Streamside Protection and Enhancement Area (SPEA)*, the width of which is determined as specified in Guidelines 2 and 3. *No development* can occur within the SPEA except as outlined in Guideline 1. Within the remainder of the Development Permit Area (outside of the *SPEA*), measures to protect and maintain the integrity of the *SPEA* are required as outlined in Guidelines 4 and 5.

JUSTIFICATION

Streams and their adjacent *riparian areas* play a vital role in Saanich’s natural environment. *Streams* provide *fish habitat* and aquatic habitat for wildlife. *Riparian areas*, when in a natural state, have dense and structurally complex vegetation that:

- has high biodiversity and supports a disproportionately large number of wildlife species,
- contributes to the ecological health of the adjacent *stream* and its *fish habitat* through
 - shading,
 - the provision of food, nutrients and organic matter,
 - the provision of large woody debris,
 - stream bank stabilization,
 - the maintenance of water quality through the filtering of water-borne sediments and the uptake of nutrients and toxic materials by the vegetation and soil micro-organisms, and
- prevents the loss of streamside land due to bank instability and soil erosion.

Development contributes to changes in the riparian area through the loss of trees and vegetation and the alteration of natural processes. These changes may greatly diminish the ability of riparian areas to function as described above. The Streamside Development Permit Area is intended to minimize the impacts of new *development* along *streams* and to maintain or restore important riparian functions and ecosystems.

OBJECTIVES

The objectives of this Development Permit Area are to:

1. protect *streams*, their *riparian areas* and the adjacent upland areas that exert an influence on *streams* from *development*; and
2. direct their restoration and enhancement so that they can provide biologically diverse wildlife habitat, corridors for wildlife movement and the *natural features, functions and conditions that support fish life processes*.

EXEMPTIONS WHERE NO DEVELOPMENT PERMIT IS REQUIRED

A Development Permit is not required for the following activities:

- i. gardening and yard maintenance activities within an existing *landscaped area*, such as mowing lawns, pruning trees and shrubs, planting vegetation and minor soil disturbance that does not alter the general contours of the land;
- ii. the construction of a fence if no *native trees* are removed and the disturbance of *native* vegetation is restricted to 0.5 m either side of the fence;
- iii. the construction of a small accessory building such as a pump house, gazebo, garden shed or playhouse if all of the following apply:
 - the building is located within an existing *landscaped area*;
 - no *native trees* are removed;
 - the building is located a minimum 5 m from the *high water mark* of the *stream*; and
 - the total area of small accessory buildings is less than 10 m²;
- iv. the construction of a private trail if all of the following apply:
 - the trail is 1 meter wide or less;
 - no *native trees* are removed;
 - the surface of the trail is pervious (for example soil, gravel or wood chips);
 - the trail is designed to prevent soil erosion where slopes occur; and
 - where the trail parallels the stream, the trail is more than 5 m away from the *high water mark* of the *stream*;
- v. *agricultural use* within the Agricultural Land Reserve;

- vi. ecological restoration and enhancement projects undertaken or authorized by the Director of Planning or Manager of Environmental Services;
- vii. construction, maintenance or operation of :
 - municipal works and services undertaken or authorized by the Corporation of the District of Saanich, and
 - parks works and services undertaken or authorized by the Capital Regional District;
- viii. emergency actions required to prevent, control or reduce an immediate threat to human life, the natural environment or public or private property including:
 - forest fire, flood and erosion protection works;
 - protection, repair or replacement of public utilities;
 - clearing of an obstruction from a bridge, culvert or *stream*;
 - bridge repairs, and
 - removal of hazardous trees.

GUIDELINES

Development permits issued in these areas shall be in accordance with the following guidelines:

1. No *development* shall occur within a *Streamside Protection and Enhancement Area (SPEA)* except for the following:
 - works authorized by the Minister of Fisheries and Oceans or a regulation under the Fisheries Act (Canada); and
 - works and activities that comply with the laws, regulations and best management practices of the Water Act, for example bank repairs, storm water outfalls, road crossings, footbridges and pipeline crossings.
2. The width of the *SPEA* will be determined in one of the following two ways:
 - a) as specified in Schedule 2 to Appendix N of the Official Community Plan By-law, 1993, No. 7044, measured horizontally from and at right angles to the *high water mark* of the *stream* (refer to Figure 4) except where the *stream* is located in a *ravine*; in which case the *SPEA* extends beyond the *top of the ravine bank* for the distance specified in Schedule 2 and includes the area between the *top of the ravine bank* and the *high water mark* (refer to Figure 5); or
 - b) by a *Qualified Environmental Professional (QEP)* acting in accordance with Section 4 (2) of the Riparian Areas Regulation of the Fish Protection Act.

3. Notwithstanding Guideline 2, where a minor intrusion into a *SPEA* determined in accordance with 2(a) or 2(b) is required and the *SPEA* is greater than 10 m wide, the *SPEA* boundary may be adjusted to accommodate the intrusion where all of the following apply:
 - a) the *SPEA* intrusion is situated within an existing *landscaped area*;
 - b) adjustment of the *SPEA* boundary does not result in any portion of the boundary being less than 10 m from the *high water mark*;
 - c) terrain stability is not compromised;
 - d) land is added to the *SPEA* equal in area to that removed, so that there is no reduction in the overall *SPEA* within the property (as calculated in square metres);
 - e) new areas added to the *SPEA* to replace those removed are contiguous with the original *SPEA* and located as close to the *stream* as possible;
 - f) there is no reduction in the quality of the *fish* and wildlife habitat provided by the *SPEA*; and
 - g) a BCLS survey plan is provided that identifies the *high water mark* of the *stream*, *top of the ravine bank* and *SPEA* boundary in relation to the property lines and existing and proposed *development*.
4. The following measures should be taken to ensure that *development* outside the *SPEA* but within the Development Permit Area (refer to Figure 3) does not negatively impact the *SPEA* and the water quality and hydrology of the *stream*:
 - a) maintain hydrological characteristics that emulate the pre-development state of the land:
 - minimize impervious surfaces;
 - return the storm water runoff from impervious surfaces of the *development* to natural hydrologic pathways in the ground to the extent reasonably permitted by site conditions, and treat, store and slowly release the remainder per the specifications of Schedule H to the Subdivision Bylaw;
 - minimize alteration of the contours of the land outside the areas approved for buildings, structures and site accesses by minimizing the deposit of *fill* and the removal of *soil*; and
 - minimize the removal of *native trees* outside the areas approved for buildings, structures and site accesses;
 - b) develop and implement a soil erosion and sediment control plan as part of site design and construction to prevent the discharge of sediment-laden water into the *stream*;
 - c) install temporary fencing and signage to prevent encroachment into the *SPEA* during construction;

- d) protect the *protected root zones* of trees located within the *SPEA* and those identified for retention outside the *SPEA* during construction; and
 - e) address terrain stability concerns that may have an impact on the *SPEA*.
5. Additional measures may also be required depending on the degree of potential impacts of the *development* on the *SPEA* and the condition of the *SPEA* including but not limited to:
- a) provision of a BCLS survey plan that identifies the *high water mark* of the *stream*, *top of the ravine bank* and *SPEA* boundary in relation to the property lines and existing and proposed *development*;
 - b) planting of *native vegetation* and removal of invasive non-native vegetation within the *SPEA* in accordance with an approved habitat restoration plan;
 - c) environmental monitoring during the construction phase;
 - d) installation of a permanent fence to demarcate the *SPEA*;
 - e) reduction of windthrow hazard within the *SPEA*;
 - f) registration of a natural state covenant over the *SPEA*; and
 - g) dedication of the *stream* to the Corporation of the District of Saanich.

DEFINITIONS

Active floodplain means an area of land that supports, or in an undisturbed condition would support *floodplain plant species* and is:

- adjacent to a *stream* that may be subject to temporary, frequent or seasonal inundation; or
- within a boundary that is indicated by the visible *high water mark*.

Agricultural use means a “farm operation” conducted in a manner consistent with “normal farm practice” as defined in the Farm Practices Protection (Right to Farm) Act.

Development means any activity referred to in Section 920(1) of the Local Government Act and includes the:

- removal, alteration, disruption or destruction of vegetation;
- removal, deposit or disturbance of soils;
- construction or erection of buildings and structures;
- creation of non-structural impervious or semi-impervious surfaces;
- construction of roads, trails, docks, wharves and bridges;
- provision and maintenance of sewer and water services; and
- subdivision.

Fill means soil, sand, gravel, rock or other material that can be used to alter the contours of land.

Fish means all life stages of salmonids, game fish and regionally significant fish.

Fish bearing means a *stream* in which *fish* are present or potentially present if introduced barriers or obstructions could be removed or made passable for *fish*.

Fish habitat means that the *stream* is either *fish bearing* or is connected by surface flow to a *stream* that is *fish bearing*.

Floodplain plant species means plant species that are typical of an area of inundated or saturated soil conditions and that are distinct from plant species on freely drained adjacent upland sites.

High water mark means the visible high water mark of a *stream* where the presence and action of water are so common and usual, and so long continued in all ordinary years as to leave a mark on the soil of the stream banks, above which there is a change in the character of the soil and vegetation. The *high water mark* is the edge of the *active floodplain*.

Landscaped area means an area significantly altered by human activity where there is the continuous maintenance of no vegetation, cultivated vegetation and/or landscape materials, including but not limited to stones, boulders, cobbles, pavers and decorative concrete.

Native means a species that occurs naturally in the area and is not introduced.

Natural features, functions and conditions that support fish life processes include but are not limited to:

- *streams* and their *active floodplains*;
- the multi-canopied forest and ground cover adjacent to *streams* that;
 - moderates water temperatures;
 - provides a source of food, nutrients and organic matter to *streams*;
 - establishes root matrices that stabilize soils and *stream* banks, thereby minimizing erosion; and
 - buffers *streams* from sedimentation and pollution in surface runoff;
- large organic debris that falls into the *stream* or streamside area, including logs, snags and root wads;
- natural sources of *stream* bed substrates; and
- permeable surfaces that permit infiltration to moderate water volume, timing and velocity and maintain sustained water flows in *streams*, especially during low flow periods.

Protected Root Zone means the area of land surrounding the trunk of a tree which has been specifically delineated on a plan by a:

- certified arborist or such other person as approved by permit issued by the Director of Parks and Recreation; or
- in the absence of such information, the area of land surrounding the trunk of a tree contained within a circle having a radius which is calculated by multiplying the diameter of the tree at breast height by 18.

Qualified Environmental Professional (QEP) means an applied scientist or technologist, acting alone or together with another qualified environmental professional, if

- the individual is registered and in good standing in British Columbia with an appropriate professional organization constituted under an Act, acting under that association's code of ethics and subject to disciplinary action by that association,
- the individual's area of expertise is recognized in the assessment methods as one that is acceptable for the purpose of providing all or part of an assessment report in respect of that development proposal, and
- the individual is acting within that individual's area of expertise.

Ravine means a narrow, steep sided valley with slope grades greater than 3:1 (33%).

Riparian areas are the moist, nutrient rich lands adjacent to *streams*. Riparian areas are transitional zones between aquatic and terrestrial (or upland) ecosystems and often exhibit vegetation characteristics of both; they are not as dry as upland environments and not as wet as aquatic or wetland systems.

Soil means the soil, sand, gravel rock or other substance of which land is composed.

Stream includes any of the following that provides freshwater *fish habitat*:

- a) a watercourse, whether it usually contains water or not;
- b) a pond, lake, river, creek or brook; and
- c) a ditch, spring or *wetland* that is connected by surface flow to something referred to in paragraph (a) or (b).

Streamside Protection and Enhancement Area (SPEA) means the area adjacent to a *stream* that links aquatic to terrestrial ecosystems and includes both the riparian area and the adjacent upland area that exerts an influence on the *stream*, the width of which is determined in accordance with Guideline 2.

Top of the ravine bank means the first significant break in a *ravine* slope where the grade beyond the break is flatter than 3:1 (33%) for a minimum distance of 15 m measured perpendicularly from the break, and the break does not include a bench within the ravine that could reasonably be developed. Any slope change greater than 3:1 must result in a greater than 1.0 m elevation gain between the points where the slope is less than 3:1.

Tree means any living, erect, woody plant that is:

- 5 m or more in height; or
- 10 cm or more in diameter.

Wetland means an area, not part of the *active floodplain* of a *stream*, which is water saturated for a sufficient length of time such that excess water and resulting low soil oxygen levels are the principal determinants of vegetation and soil development. A wetland has a relative abundance of hydrophytes (plants adapted to grow in water logged soils) and/or soils with hydric characteristics that reflect anaerobic conditions. There is a broad range of wetland ecosystem types including swamps, marshes, bogs, fens and estuaries.