

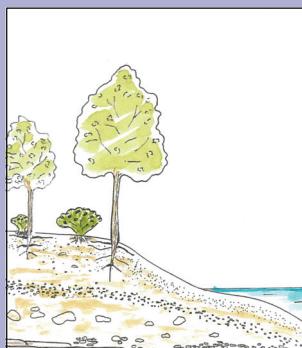
## What should I avoid doing in the riparian buffer?

- Transforming the riparian buffer into a lawn.
- Cutting down trees to open the view.
- Using chemical herbicides to eliminate vegetation.
- Landscaping with exotic invasive species.
- Creating impervious or semi-impervious surfaces.
- Building a septic field or groynes.
- Using heavy equipment of any kind.
- Cleaning the foreshore of downed logs and branches.
- Removing large rocks and pebbles from the foreshore.

Maintaining a natural, or semi-natural, riparian area will not only be healthier for the aquatic habitat, it will also reduce your yard maintenance!



Good riparian vegetation cover



Poor riparian vegetation cover

## Regulations regarding the riparian zone

If you are in an area regulated by the Regional District of Central Kootenay (RDCK), check the Official Community Plan (OCP) at [http://www.rdck.bc.ca/publications/bylaws/1967\\_Hn\\_OCP.pdf](http://www.rdck.bc.ca/publications/bylaws/1967_Hn_OCP.pdf)

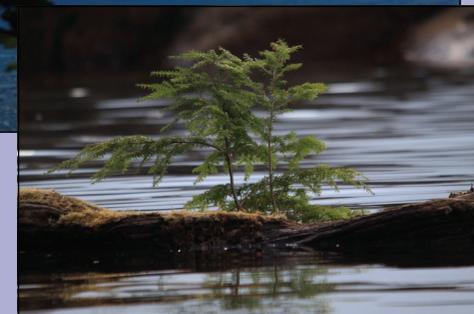
If you are in one of the three municipalities bordering Slokan Lake, check the municipal OCP, or consult regulations at your local government office.

To build on or alter the foreshore in any way requires a permit from BC Lands and Ministry of the Environment.

In the RDCK jurisdiction, to build or alter the riparian zone requires a permit.



## Riparian areas: the ribbon of life



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## What are riparian areas?

Riparian areas are the portions of land adjacent to water bodies – lakes, wetlands, creeks and rivers – that are influenced by, and have an influence on, the aquatic environment. As transition zones between the terrestrial and the aquatic environment, riparian areas are some of the most diverse ecosystems on earth.

## What is the riparian buffer?

The riparian buffer includes the foreshore and the riparian zone. These areas act as a protective *buffer*; they shield the land from erosion and the water from contamination and disturbance to the aquatic habitat.

- The foreshore is the portion of land from the water's edge to the high water mark, or to the top of the stream bank. The foreshore can include beaches, emergent vegetation, fallen trees and branches, washed up logs, natural rocks and pebbles, and herbaceous plants growing along the shore.
- The riparian zone starts where the foreshore ends, at the normal high water mark, usually identified by the edge of permanent woody plants (shrubs or trees) growing closest to shore. **Some regulatory bodies define the riparian zone as at least 30m above the high water boundary; this may include a portion of the upland slope** (Slocan Valley North Official Community Plan; Riparian Areas Regulation).

Private property that borders on fresh water bodies ends at the normal high water mark. The foreshore belongs to the Crown, as it is considered part of the creek, river, wetland or lake.



## Why are riparian buffer areas important?

Often called *the ribbon of life*, riparian areas provide critical habitat for wildlife, particularly for species that depend on the aquatic environment: invertebrates, amphibians, mammals and birds (otter, kingfisher, merganser, great blue heron). These areas are also crucial for maintaining healthy fish habitat.



Riparian areas safeguard the aquatic environment from human or natural disturbances, such as construction, fires, and contaminants. They also protect the land from the erosive forces of wind, currents and waves.

The vegetation of riparian areas functions like *rebar* in concrete, holding the soil together and protecting it from erosion. The riparian vegetation also helps to maintain the condition of the freshwater habitat by:

- promoting the infiltration of water runoff;
- absorbing contaminants and excess nutrients;
- facilitating the deposit of sediments;
- providing shade to keep the water cool; and
- providing woody debris and food for fish.

## How does the riparian buffering work?

One of the main functions of the buffer is to slow down water runoff and subsurface flow, thereby increasing sediment deposits and absorption of dissolved nutrients.

Rain and snow-melt flow more swiftly over smooth surfaces which increases erosion. The force of the water creates small channels, carrying greater amounts of soils particles into the aquatic environment. The presence of vegetation, debris and rocks slows the flow of water over the land, increasing water infiltration into the soil and the deposit of sediments on the surface.

The effectiveness of the riparian buffer depends to a great extent on the vegetation cover. Shrubs and trees have deep roots which facilitate more water penetration into the soil and a higher absorption of nutrients. Grasses, having shallower roots, allow less infiltration of runoff. **Less infiltration, deposition and absorption means that more contaminants may reach the freshwater body.**

Native plants, which are adapted to the climate and form an integral part of the habitat for native wildlife, are the most desirable for the riparian area.

## What can I do to conserve the riparian buffer?

If you own property along a shoreline where the riparian buffer is in its natural state, the best thing you can do is to leave it as it is. Landscaping is best done *above* the riparian buffer. If changes to the riparian zone within your property seem necessary, check with your local jurisdiction to see if you are required to apply for a permit to make those changes. You will always require a permit to modify the foreshore in any way. Always choose alternatives which will reduce the risk of impact to riparian buffer functions! Here are some suggested options:

- Leave dead or downed trees; they are important for birds and wildlife.
- Create a natural effect with groups of rocks and woody debris.
- Maintain native shrubs and trees in groups, creating an esthetic and natural effect.
- Increase the density of native shrubs.
- Eliminate exotic invading species (e.g., hawkweeds). See information from Invasive Species Council for BC at <http://www.bcinvasives.ca>
- If you feel it's necessary to open your views, prune rather than cut trees.
- Minimize ground disturbance to access the shore by building a foot trail and/or boardwalk to the water. On steep slopes, consider stairs.

If you already have a landscaped yard in your riparian area, consider the following options:

- Eliminate the lawn or reduce its size, and keep it as far as possible from the water's edge. As much as we may like the looks of a green lawn, turf grass is a poor choice as a riparian ground cover.
- Plant native shrub and tree species in patches, creating a natural and aesthetic effect.
- Use groups of rocks and woody debris around vegetation patches to accentuate a natural effect.
- Use organic or natural products to eliminate weeds.
- Follow directions when using fertilizers, applying only the amount that your plants will absorb in the growing season.