



REGIONAL DISTRICT
of Fraser-Fort George

Development Services
Planning



HEALTHY WATERFRONTS: A Shoreline Living Series

EROSION

Every shoreline is exposed to different natural events and human activities that can cause erosion. For example, wave action can undermine banks, high water levels can saturate the soils, and land clearing removes deep rooting vegetation. Not only does erosion cause you to lose lakeshore property, it also leads to soils and sand entering into the water where they can affect the health of the lake and damage natural habitats for fish and wildlife.

VEGETATED SHORELINE

A vegetated shoreline should be a 15-metre strip (minimum) along the waters edge. A natural vegetated shoreline is one of the most effective and least costly ways to reduce or protect from erosion. A vegetated shoreline of plants, shrubs, stones, fallen limbs and trees acts like a sponge to absorb excess water, and filter out pollutants such as pesticides and fertilizers. Larger deep rooting trees, shrubs and plants form a complex web of roots that holds the shoreline in place and protects against the impacts of wind, rain, waves, ice and boat wake. A natural vegetated shoreline is also inviting for fish, birds, insects and wildlife.



RE-ESTABLISHING A SHORELINE WITH NATURAL VEGETATION

Once a shoreline has been stripped of all natural vegetation, it is at greater risk of erosion from wind, rain, ice and wave action. Restoring your waterfront to a natural state doesn't need to be

costly or require a lot of labour.

Solutions to reduce or protect from erosion from occurring and re-establishing a natural vegetated shoreline are:

- Stop mowing your lawn within the first 15 metres of the waters edge. Native plants, shrubs and trees will start to grow into the area and help stabilize the soils.
- In areas where there is heavy clearing, plant a mix of deep rooting native plants and shrubs.
- Replace a hardened walkway or landing leading to the shoreline with a more absorbent one made of natural grasses, wood chips or gravel. This will allow water to be absorbed by the soil and stop runoff.

RETAINING WALLS – NOT A STAND UP IDEA

Building a retaining wall made of wood, steel, rock or concrete along the waters edge can be a costly option to your wallet and to the environment. By imposing a sharp vertical drop-off on the shoreline, a retaining wall limits the ability of plants to re-root up or down the bank as levels rise and fall. Retaining walls are also a short term fix. When wave action slams against a vertical wall, the energy is deflected upwards where the wave breaks against the top of the wall, and downwards, where currents scour out the earth at its base. This force causes the ground beneath to wash away. This will make the wall slant and break up.

Regional District of Fraser-Fort George:

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Remember these helpful hints to control erosion and to protect vegetation along your shoreline:

Do:

- Leave a 15-metre natural vegetation buffer (minimum) between the water and any development.
- Plant deep rooting native shrubs, plants and trees in areas where erosion may occur.
- Leave stumps from fallen trees or shrubs in the ground. The roots will help to stabilize the shoreline.
- Use your dock as a bridge over the weedier shallows along the waters edge.
- Build a dock that can be used as access to the lake, instead of having a beach area.
- Leave trees where they fall, unless they are a hazard to boats or swimmers.

Don't:

- Do not clear your property to the waters edge. Removing deep rooting, tall vegetation will create loose soil and increase the chance of erosion.
- Do not plant grass to your waters edge. The rooting system of a lawn is not adequate to counteract wave action or the runoff of soils and pesticides.
- Do not add foreign soils or sand to your lakeshore. The sand will eventually erode away and will negatively impact the lake and wildlife.
- Do not replace the natural shoreline with a retaining wall made of wood, rock, concrete or steel.
- Do not remove woody debris and aquatic plants from the shallows of the waters.



DEVELOPMENT PERMITS

Many lakes within the Regional District of Fraser-Fort George are within a Development Permit Area. This means that any land clearing, landscaping, land alteration and/or construction activities require a permit. Generally, the permitting area extends from the shoreline back 300 metres.

Remember – This permit is not a building or sewage disposal permit.

Development Permits exist to enhance views, maintain water quality, protect fish/wildlife habitat and conserve the green buffer. A Development Permit application requires a drawing showing the layout of the property, including extent of vegetation, lost/retained and sediment control plans.

Contact the Regional District of Fraser-Fort George for more information.

Making an application does not guarantee approval. The decision rests with the Regional District.



This information has been prepared to provide convenient information only. It is neither a bylaw nor a legal document. If any contradiction between this information and the relevant bylaws and/or applicable codes arises, such bylaws and/or codes shall be the legal authority.

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OTHER RESOURCES

Fisheries and Oceans Canada
The Shore Primer
<http://www.dfo-mpo.gc.ca/Library/337927.pdf>

BC Lake Stewardship Society
www.bclss.org

North American Lake Management Society
www.nalms.org

Fisheries and Oceans Canada
www.pac.dfo-mpo.gc.ca

Ministry of Forests, Lands, Natural Resource
Operations & Rural Development
Guidelines and Best Management Practices
<http://www.env.gov.bc.ca/wld/BMP/bmpintro.html>

Streamkeepers
www.pskf.ca

Wetlandkeepers
www.bcwf.bc.ca/programs/wetlands/wetlandkeepers.html

On the Living Edge – Handbook for Waterfront Living
(downloadable from BCNature)
<http://www.bcnature.ca/projects/completed-projects/living-by-water/on-the-living-edge/>

Lakeshore Guidelines
<http://www.rdffg.bc.ca/documents-resources/reports>