



Living in Nature Series

Caring For Your Shoreline

Riparian areas are shorelines, strips of land beside streams, rivers, wetlands, lakes, and other water bodies. They support a community of moisture-loving plants that are distinctly different from aquatic vegetation and from the plants growing in the drier grasslands and open forests of the Okanagan.

Animals that call riparian areas home...

About 85% of Okanagan wildlife species are dependent upon riparian habitats or use them regularly. Species at risk such as the Great Basin Spadefoot, and the Yellow-breasted Chat depend on these areas for their survival.



Barred Owl



Great Basin Spadefoot



Brook Trout



Tiger Salamander



River Otter and Coyote

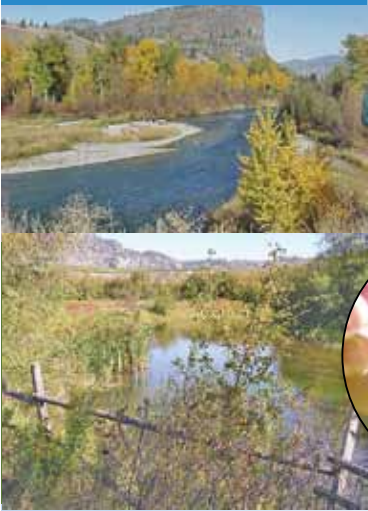


Yellow Breasted Chat



Honey Bee

Can you spot the riparian green belts on these aerial photographs?



Why is your riparian area so important?

Multi-layered canopy, thick underbrush, and diversity of trees and shrubs provide food, nesting sites, shelter and escape cover for wildlife.

Lush vegetation filters sediments and pollutants from storm water runoff, thus cleaning the water.

Provide the much needed shaded, cooler, and moister green belts in the hot Okanagan summers.

Provide green space for human enjoyment such as bird watching, wildlife viewing, and more.

Roots provide flood protection by slowing and dissipating high stream flows.

Roots stabilize stream banks thus decreasing soil erosion and siltation.

Provide large woody debris such as stumps, logs, and root wads for the stream. These provide shelter and cover for fish, and other aquatic life.

Fallen leaves provide nutrients for insects which are, in turn, food for fish and other aquatic species.

Overhanging vegetation provides shade, thus shielding water from temperature extremes that may be stressful, even fatal, to fish and other aquatic life.

Since the 1800s more than 73% of the riparian areas have been lost in Okanagan Valley. They were negatively affected by agricultural, urban and suburban settlement and development, including forestry and flood control (e.g., Okanagan River Channelization). You can make a difference by taking care of the riparian areas on your land.



What can you do to take care of your riparian area?

There are many simple steps that you can take to help the riparian area on your property. The keys are to prevent water pollution from adjacent lands, to protect the riparian area by making it as wide as possible, and to get as many native riparian shrubs and trees to grow wildy.



Barren and heavily damaged riparian areas adjacent to degraded water bodies will need active restoration such as stabilizing eroding stream banks. We

recommend assistance from non-governmental and government agencies that have professionals to help you highlight problem areas, strategize and implement solutions.



Unhealthy riparian areas have fewer trees and shrubs resulting in decreased structural diversity (i.e. fewer plant layers). The result is fewer homes available for wildlife to live in.



A healthy riparian area has different kinds of trees of varied ages and heights, a thick underbrush layer, and other lush vegetation. There are many places for wildlife to hide and find food and clean water. This creates a more intricate web of life, bringing with it more stability, productivity, and reliability for the users and stewards of riparian areas.

Prevent water pollution

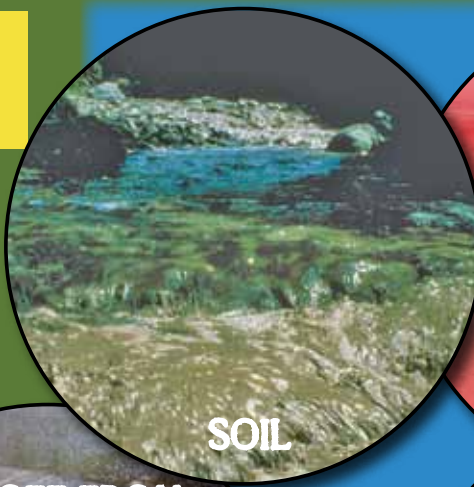
Any substance that can be carried or dissolved by water can end up in waterways and affect the water quality for wildlife, people, and fisheries.

Which of these would you consider pollutants?

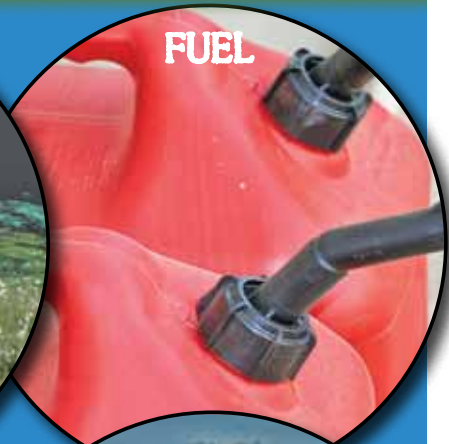
MANURE and FERTILIZER



SOIL



FUEL



RUN OFF FROM WET CONCRETE



PESTICIDES

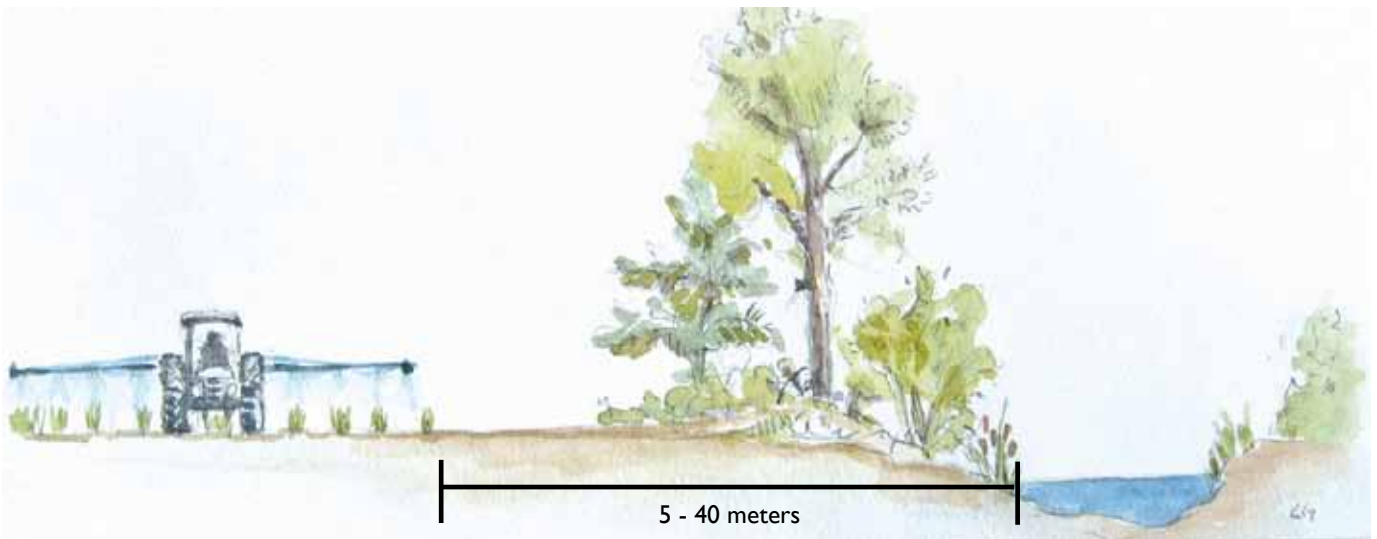


WOOD PILE LEACHATE



These are all potential pollutants and should be controlled at the source, even if the source is far away from the water body. Get informed about best management practices.

Do not spray pesticides or fertilizers into water bodies. Follow best management practices for spraying. Implement a spray-free buffer zone around all water bodies as indicated on the pesticide label. Buffer zones may vary from 5- 40 metres, depending on the chemical. The BC Environmental Farm Plan's Pest Management Reference Guidebook has excellent information for landowners.



Protect the riparian area



Fencing to delineate the riparian area and protect it from agricultural uses is a practical way to protect your riparian area.

Generally, a riparian setback of at least 30m in width on both sides of a watercourse is recommended for streams up to 20m in width. Streams larger than 20m in width generally require a riparian setback of at least 50m in width on both sides of a watercourse. Narrower leave strips may not protect stream banks from erosion and will be less effective at filtering runoff.

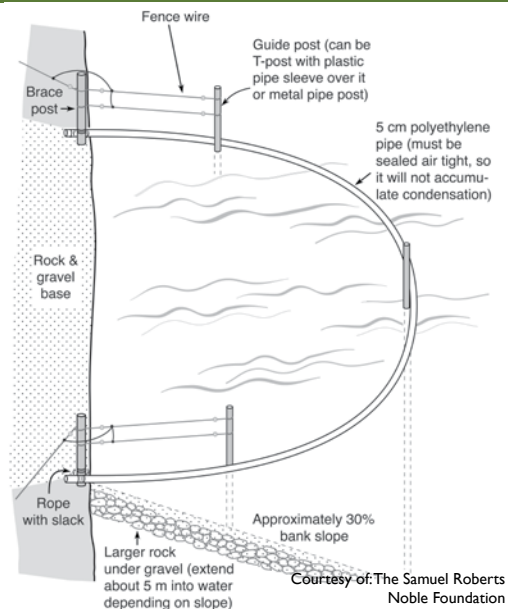
If you have livestock: Fence off the riparian zone and provide an alternative watering facility; Improve livestock distribution by maintaining groves of trees or a roofed shelter beyond the riparian zone; Locate feed and supplements as far away from the riparian areas as possible.



If an alternative watering facility is not an option, provide an access point for livestock to limit their disturbance to a single point along the watercourse. This is one way to improve water quality for livestock as well as wildlife and fisheries.



Access points made out of polyethylene pipe are durable, require little maintenance, and are affordable.



Help the riparian vegetation grow wildly

Treating riparian areas as 'leave strips' (simply leaving them alone) often provides the least cost and greatest benefit to agriculture and wildlife habitat alike.

If your riparian area is looking a little barren, you can enhance it by planting native riparian plants. Make sure

to plants species that naturally occur in riparian areas in your region. New plants will need to be watered regularly for the first two years, until their roots get established. After that time, it's up to nature to water them!

BEFORE



AFTER



Can you guess the names of the following plants that grow in riparian areas of the Okanagan?

- 1. Black Cottonwood
- 2. Trembling Aspen
- 3. Water Birch
- 4. Red-osier Dogwood
- 5. Wild Rose
- 6. Smooth Sumac
- 7. Giant Wild Rye
- 8. Sedges

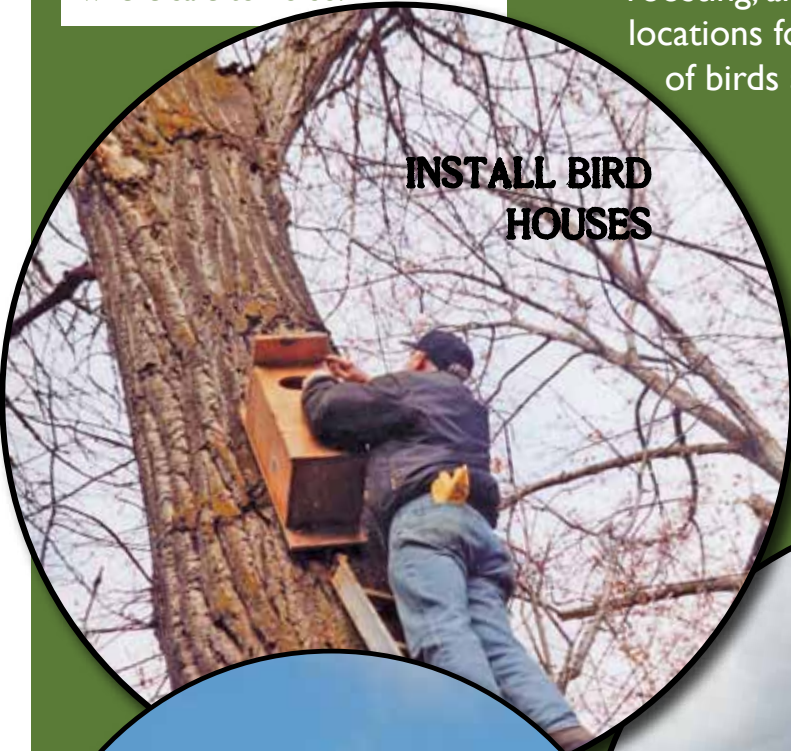
Protect wildlife trees

A wildlife tree is any standing live or dead tree with characteristics that provide valuable habitat for wildlife. Dead trees can sometimes provide valuable wildlife habitat for hundreds of years. Allow a new generation of trees to mature and die off naturally. Leave dead trees standing where safe to do so.



Provide nesting, roosting, and perching locations for a variety of birds and bats.

INSTALL BIRD HOUSES



INSTALL RAPTOR NESTING PLATFORMS



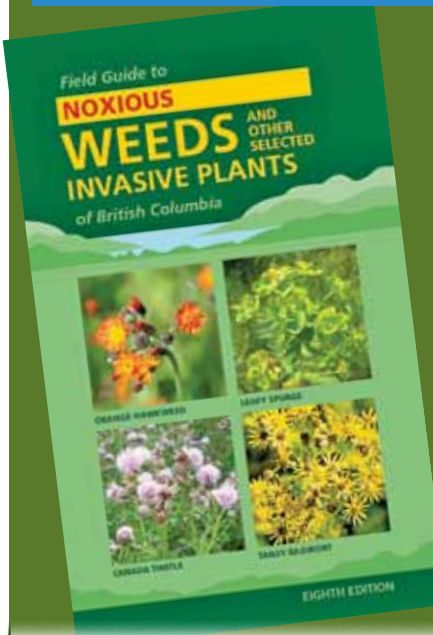
INSTALL BAT BOXES



Be a weed warrior

Familiarize yourself with invasive non-native plants and take action against them if you find them on your riparian area.

- Remove invasive non-native plants to allow for some natural re-vegetation and reduce competition with any new plantings.
- Plant native riparian trees and shrubs in areas impacted by weeds.
- Monitor recovery of native species and remove any new weeds.
- Encourage adjacent property owners to participate in a cooperative long-term weed control program.



It is important to remember that Canada's fisheries habitat protection laws and provincial legislation could affect riparian restoration plans. BC Environment and the Department of Fisheries and Oceans should be contacted before any work in or near water is conducted, to determine the project's impact on fisheries.



For further information on riparian area management and legislation contact:

BC Ministry of the Environment, Ministry of Forest, Department of Fisheries and Oceans, your regional district office, Okanagan Similkameen Stewardship Society, BC Environmental Farm Plan, Ducks Unlimited, Okanagan and Similkameen Invasive Species Society, Stewardship Centre for BC, and/or Cows and Fish Alberta Riparian Habitat Management Society.

Produced by:

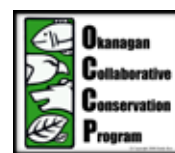
Okanagan Similkameen Stewardship Society
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Helping private landowners protect and enhance natural areas on their lands.

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