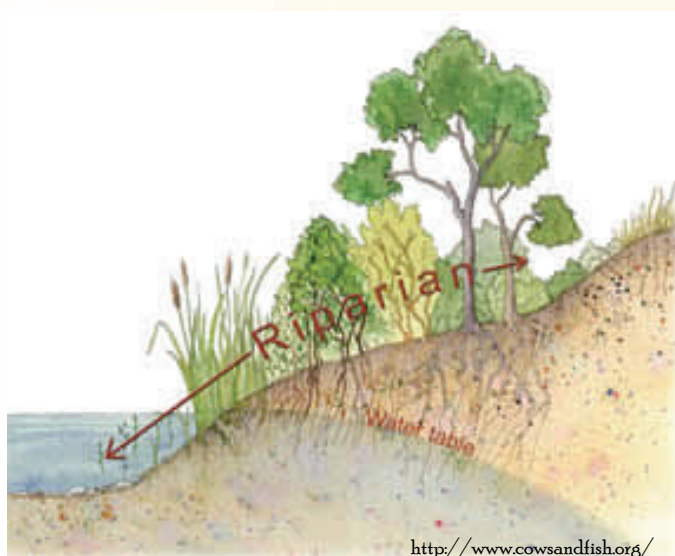


Crowsnest Pass Agricultural Services



Riparian Area ~ Lyons Creek, Blairmore Alberta

What are riparian areas and why do they matter?



Riparian areas are thin strips of land beside streams, rivers, lakes and wetlands where the soil and vegetation are influenced by the presence of water. Although riparian areas only make up a small fraction of the landscape, they are the most productive ecosystem.

When properly maintained, healthy riparian areas provide many benefits to people and wildlife.

- Trap sediment
- Reduce erosion of stream banks
- Reduce flood damage
- Promote biodiversity by providing ideal habitat
- Create competition for invasive plants species
- Store and filter water for increased water quality
- Improve fish and aquatic habitat by creating cover and shade



What are weeds?

A weed is a plant out of place (an invasive species) that is generally introduced from another country or region and has few limiting factors such as growing conditions, disease and predation from animals. Weeds are able to outcompete native species (the opposite of a weed, it belongs here) and have the potential to harm the environment. Usually weeds are spread by humans but also can be transported by wind,

water, wildlife and livestock. There are two important classifications of weeds in Alberta, "Prohibited Noxious" and "Noxious". Prohibited noxious weeds by law are required to be "destroyed" as they are highly aggressive and are uncommon in Alberta. Noxious weeds are unfortunately common in many regions and are required to be "controlled" to limit their abundance and prevent further spread.



Oxeye Daisy
Noxious

Spotted Knapweed
Prohibited Noxious

Common Tansy
Noxious

Special points of interest:

- What you can do as a riparian resident. Page 2
- What the municipality is doing to restore riparian area health. Page 3
- Plants being used for restoration. Page 3
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Information for Riparian Area Residents

As a resident there are some important steps that you can take to help protect the riparian areas. The importance of protecting the riparian area surrounding Lyons Creek is to help slow down or prevent erosion, reduce flood damage, provide and maintain a healthy habitat, ensure continued water quality and enhance the current aesthetic beauty of the creek.

Riparian Area Plants

The native plants along the banks such as river birch, willow, aspen poplar, wild rose, and native grasses all help hold the soil in place. As illustrated below, the roots from grasses can also assist in maintaining the banks of the river and helping with riparian area health. These plants thrive in shaded, moist, and uncontaminated sites within the riparian area.

Waste

Dumping waste like grass clippings on the banks suffocates and blocks sunlight from reaching these important plants, killing them so their roots no longer stabilize the river banks. Any other garbage, household wastes or chemicals also pollute the riparian area and make conditions more ideal for weeds to grow. These weeds aren't as effective at stabilizing the soil. Short cut grass is also very inviting for weeds as conditions are sunnier with less moisture. As well, pollutants also enter the creek and decrease water quality and also harm fish.



Tree roots holding bank on Lyons Creek

Your Active participation

Better management of the Lyons Creek riparian area can take place by knowing which plants are weeds (invasives) or useful native plants. By including native plants in your garden with good root systems and planting woody vegetation along the riparian area, riparian landowners can actively participate in managing this important part of Blairmore.



Smaller roots holding bank on Lyons Creek

Pollutants include: herbicides, pet wastes, lawn fertilizer, herbicides, gasoline, oil, cleaning supplies ect.

There are some simple steps that can be taken to protect, restore and to prevent weed infestations in the riparian area along Lyons Creek.

- Mowing grass no closer than 1m away from the bank to ensure that tall grass and other vegetation is left closest to the stream
- Be knowledgeable of the different types of unwanted weeds (invasives) and native plants
- Disposing of garbage, grass clippings, toxic substances ect. at the proper facilities (CNP Pincher Creek Landfill, Frank Burn Pit, Toxic Roundup)
- Keeping or planting native, woody vegetation approved by the Municipality
- Effectively controlling weeds along riparian areas to prevent a weed infestation and further spread downstream

What is the Municipality doing to maintain riparian area health and control weeds?

Currently the Municipality is working to eliminate prohibited noxious and noxious weeds in riparian areas by priority. This has been accomplished through hand pulling, and using a selective water safe herbicide treatment. Contractors and even hard-working volunteers are all part of this team. As well, we are planting native species in the riparian area along Lyons Creek in Blairmore and

hope to continue this in other high risk areas in the future. The willow and other native species being planted will help stabilize the banks and put disadvantage weeds by providing more shade (weeds need direct sunlight).

This work has been made possible through a grant from the Alberta Conservation Association.



Riparian restoration area in the Riverside Memorial park

Riparian Restoration Plant Species List

- River Birch (*Betula occidentalis*)
- White Spruce (*Picea glauca*)
- Mountain Maple (*Acer glabrum*)
- Green Alder (*Alnus viridis ssp. crisp*)
- Wild Rose (*Rosa woodsii*)
- Prickly Rose (*Rosa acicularis*)
- Shrubby Cinqufoil (*Dasiphora floribunda*)
- Creeping Juniper (*Juniperus horizontalis*)
- Aspen Poplar (*Populus tremuloides*)
- Willow (*Salix species*)



Kim Lutz

Bio-Engineering for Riparian Restoration

The Municipality of the Crowsnest Pass has already been successful with a live willow staking project on the new trail system. The bio-engineering project location is on the community

Palatability of Plant Species Used for Restoration

Another consideration that needs to be taken when selecting plants used for restoration is palatability. Palatability in this instance is used as a way to describe how desirable a plant is for wildlife to eat. Plants species such as Saskatoon (berries) and Mountain Ash are well suited to our area but have fruiting bodies or berries which are desirable for bear and deer, etc. Another plant species, Red Osier Dogwood, which also

grows well in riparian areas is very desirable for deer, elk, etc as well. Both types of wildlife are problematic when in town and create a safety risk for themselves and people. Therefore, extra thought has been taken when selecting the plant species used for restoration to avoid attracting wildlife. For further information look on the Crowsnest Pass Bear Smart website (Crowsnest Conservation Society) or the Municipal website.

trail, close to the trail head above Fireman's Park in Bellevue.

Willow staking is done by taking branches of local, living willows and planting them in another location. Planting is accomplished by pounding the willow into a suitable location with water and adequate sunlight. A unique characteristic of willows species is the ability to grow roots from any place along its branches. Willows are well adapted to growing in riparian areas and provide valuable support for land next to water.

Crowsnest Pass Agricultural Services



The Municipality of the Crowsnest Pass now employs an Alberta Agricultural Fieldman. An Alberta Agricultural Fieldman's responsibilities include the enforcement of the following statutes: Agricultural Service Board Act, Weed Control Act, Soil Conservation Act, and Agricultural Pests Act. As well, an Agricultural Fieldman is a member of a professional organization and therefore must adhere to higher standards and be a life long learner. In the Crowsnest Pass area specifically, an Agricultural Fieldman will mostly be working to manage weeds and pests in the area, though there are many other valuable services this position provides. In the past year, this has meant knowledgeable planning and control of weeds and pests as well as other agricultural and environmental management. There have been projects done in partnership with the Crowsnest Conservation Society and shared volunteer recruiting in the Crowsnest Pass with Trout Unlimited and the Nature Conservancy. Much of the work is done behind the scenes, though there have been more visible projects undertaken like public weed pull events. Additionally, a skunk trap rental program is offered to residents of the Crowsnest Pass. If you have any questions regarding weeds, pests, or general environmental management, please do not hesitate to contact the Crowsnest Pass Agricultural Fieldman.

Contact: Agricultural Fieldman

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For more information

Crowsnest Conservation Society

<http://www.crowsnestconservation.ca/news.php>

Government of Alberta *Water for Life*

<http://www.waterforlife.alberta.ca/01122.html>

Association of Alberta Agricultural Fieldman

<http://www.aaaf.ab.ca/index.php>

Cows and Fish *Alberta Riparian Habitat Society*

<http://www.cowsandfish.org/riparian/riparian.html>

Bear Smart

<http://www.bearsmart.com/>

Oldman Watershed Council

<http://oldmanbasin.org/index.php/watershed-info/benefits-of-a-healthy-watershed/>

Government of Alberta *Sustainable Resource Development*

<http://www.srd.alberta.ca/LandsForests/GrazingRangeManagement/RiparianAreas.aspx>

Alberta Conservation Association

<http://www.ab-conservation.com/go/default/index.cfm/programs/land/riparian-conservation-project/>



By Samantha Dunbar