

At Home on the Elbow River



-Ours to share-

You are part of the Elbow River Watershed.

- The Elbow River and its tributaries drain over 1,200 km² of land.
- The source of the Elbow River is the Rae Glacier in Kananaskis.
- The waters of the Elbow River eventually end up in Hudson Bay.
- The Elbow River drops 1,000 vertical meters over the 120km journey from its source to the confluence with the Bow River. For its length, this is a steep drop!
- 40% of Calgarians receive their drinking water from the Glenmore Reservoir, which is fed by the Elbow River.
- Water quality in the lower Elbow River (from the base of the Glenmore Dam to the Bow River) is variable, at times not meeting Alberta's recreational water quality guidelines.
- The June 2005 flood was only a 1 in 20 year flood event with peak flows on June 19 reaching 251 m³/second on the lower Elbow River. To put this into perspective flows typically average between 2 & 5 m³/s, October through April, reaching up to 100+ m³/s during spring peak flows.

All the lands drained by the Elbow River and its tributaries.



— Boundary lines of the Elbow River Watershed.

The Elbow River is home to a diverse community of species.



1. **BIRDS:** 143 species have been recorded on the Lower Elbow River. Over the last 15 years the species nesting along the River have dropped from 50 to 38 species.
2. **FISH:** Sportfish (rainbow trout, brown trout, mountain whitefish, and northern pike) and Non-Sportfish (white sucker, longnose sucker, brook stickleback, lake chub, fathead minnow).
3. **REPTILES:** wandering garter snake, bull snake.
4. **AMPHIBIANS:** chorus frog, leopard frog (rare).
5. **FLORA:** Great variety of plants including fungi, lichen, mosses, gymnosperms (cone producing plants) and flowering plants.
6. **INSECTS:** Some of the common insects include terrestrial beetles, ladybird beetles, ants, digger wasps, bumblebees, mosquitoes, dragonflies, short and long-horned grasshoppers; caddis, stone and mayflies; and aphids.
7. **BUTTERFLIES & MOTHS:** Many varieties of early spring and summer butterflies. Some of these butterflies feed or breed on willow and dogwood shrubs or native violets.
8. **MAMMALS:** beavers, coyotes, white-tailed deer, porcupine, hares, Richardson's ground squirrel, mice, voles, muskrat, and humans.

How many different species share your backyard?

Riparian areas are the green zones of water-loving vegetation found along streams, rivers, lakes and wetlands. They are often referred to as riverbanks, shorelines or floodplains.

A healthy riparian area includes a diversity of trees and shrubs with deep binding roots that naturally 'glue' the river banks together. 80% of all wildlife in Alberta use riparian areas for part or all of their life cycle.

Benefits of a healthy riparian area:

- Stabilizes riverbanks and prevents erosion of your property.
- Provides flood protection.
- Traps and filters pollutants after a rainstorm or flood event.
- Enhances the quality of "run-off water" entering the Elbow River.
- Provides important shelter and food for fish, insects and wildlife.
- Adds aesthetic value to your property.



Example of a healthy riparian area.



Example of an unhealthy riparian area.

Roots are the Solution.

Recommended native plant species*
for a healthy riverbank – choose 3 or 4
different species of varying heights and
plant a number of them.



Dwarf Birch



Yellow Twig
Willow



Red Twig
Dogwood



Sandbar Willow



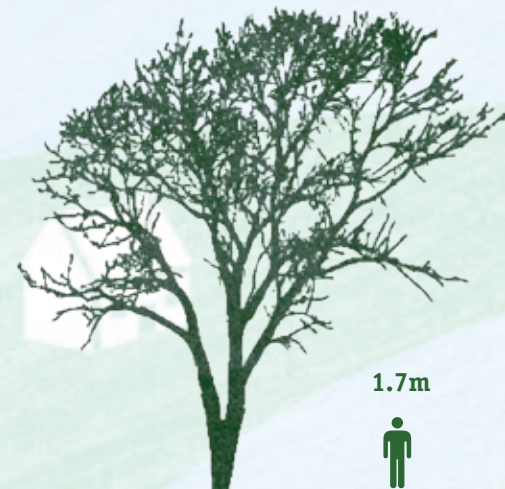
Bebb's Willow



River Alder



River Birch



Balsam Poplar



1.7m

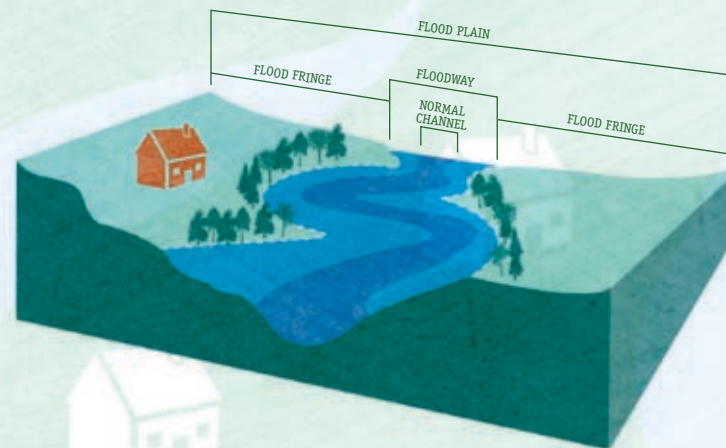
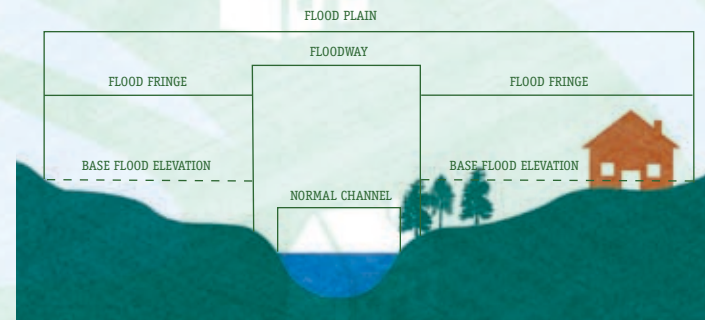
* Native species are grown from local seed sources and
are well-adapted to the climate and soils found in Calgary.

The blue zone is the water component of the Elbow River.

Surface water is the water flowing visibly between the riverbanks. There is also underground water that, while not visible to the naked eye, influences surface water in times of flood and drought.

Rivers Naturally Flood:

During the spring freshet (run-off from the mountains) in May and/or June the Lower Elbow River often overflows its banks. This is an important part of a river's natural evolution as it rejuvenates vegetation along the river bank, deposits nutrient-rich sediment in the floodplain as flows recede, refreshes fish habitat and recharges underground water.



Improving your property with nature in mind the steps you can take

- 1 **Create a healthy green zone** by planting some or all of your river bank with a variety of native, water-loving trees and shrubs (see the green zone). Planting native species into the riverbank does not require permission but expertise can certainly help!
- 2 **Treat your yard organically.** Synthetic fertilizers and pesticides cause havoc with water quality above and below ground and can be detrimental to fish and their habitat.
- 3 **Minimize disruption to the riverbank.** If your riverbank is falling away consider stabilizing the bank with living material such as native willows and poplars - better for wildlife, water quality and energy dissipation at a lower expense to you. Permits are required when stabilizing riverbanks. Consult the Resources page for guidance.
- 4 **Certify your nature friendly backyard** with the Canadian Wildlife Federation. http://www.wildaboutgardening.org/en/whats_new/backyardhab/application_form.htm
- 5 **Join or contribute to stewardship organizations.**
- 6 **Invest in a Free riparian health assessment** of your river bank offered by the Alberta Riparian Habitat Management Society (Cows and Fish). No obligations, just information! Contact: Alberta Riparian Management Society (Cows and Fish) at 403.275.4400 c/o Alberta Beef Producers.
- 6 **Launching a backyard building project near, on, or in the river? Check with:**
 - *City of Calgary, Development and Building Approvals* http://www.calgary.ca/docgallery/bu/dba/land_use/bylaw_review/bylaw_1p2007.pdf, p. 69-71, 403.268.5311
 - *Alberta Environment, owner of the bed and shore* <http://environment.gov.ab.ca/info/library/6208.pdf>, 403.297.7602
 - *Fisheries & Oceans Canada, fish and fish habitat* http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/water-eau/apply-appliquez_e.asp, 403.292.5160
 - *Canadian Wildlife Service, Environment Canada, bird nesting wildlife habitat*, http://www.cws-scf.ec.gc.ca/enforce/law_e.cfm



Trout Unlimited Canada
<http://www.tucanada.org>
403.221.8360



River Valleys Committee
<http://www.parksfdn.com>
403.974.1070



**Elbow River
Watershed Partnership**
www.erwp.org
403.685.5580



City of Calgary, Water Services
<http://www.calgary.ca/waterservices/>
311



Bow River Basin Council
www.brbc.ab.ca
403.268.4596



Alberta Conservation Association
<http://www.ab-conservation.com>
1.877.969.9091



**Alberta Riparian Habitat
Management Society (Cows and Fish)**
<http://www.cowsandfish.org>
403.275.4400 (Alberta Beef Producers)



Bow Point Nursery Ltd.
<http://www.bowpointnursery.com>
403.686.4434



Nature Calgary
www.naturecalgary.com
403.239.6444



Alberta Native Plant Council
<http://www.anpc.ab.ca/content/index.php>



**Alberta Sustainable Resource
Development (Fish and Wildlife)**
<http://www.srd.gov.ab.ca/fishwildlife/>
403.297.6423



Together we create a community connected by water.



Trout Unlimited
Canada

**River
Valleys
Committee**

