



The Value of Riparian Areas

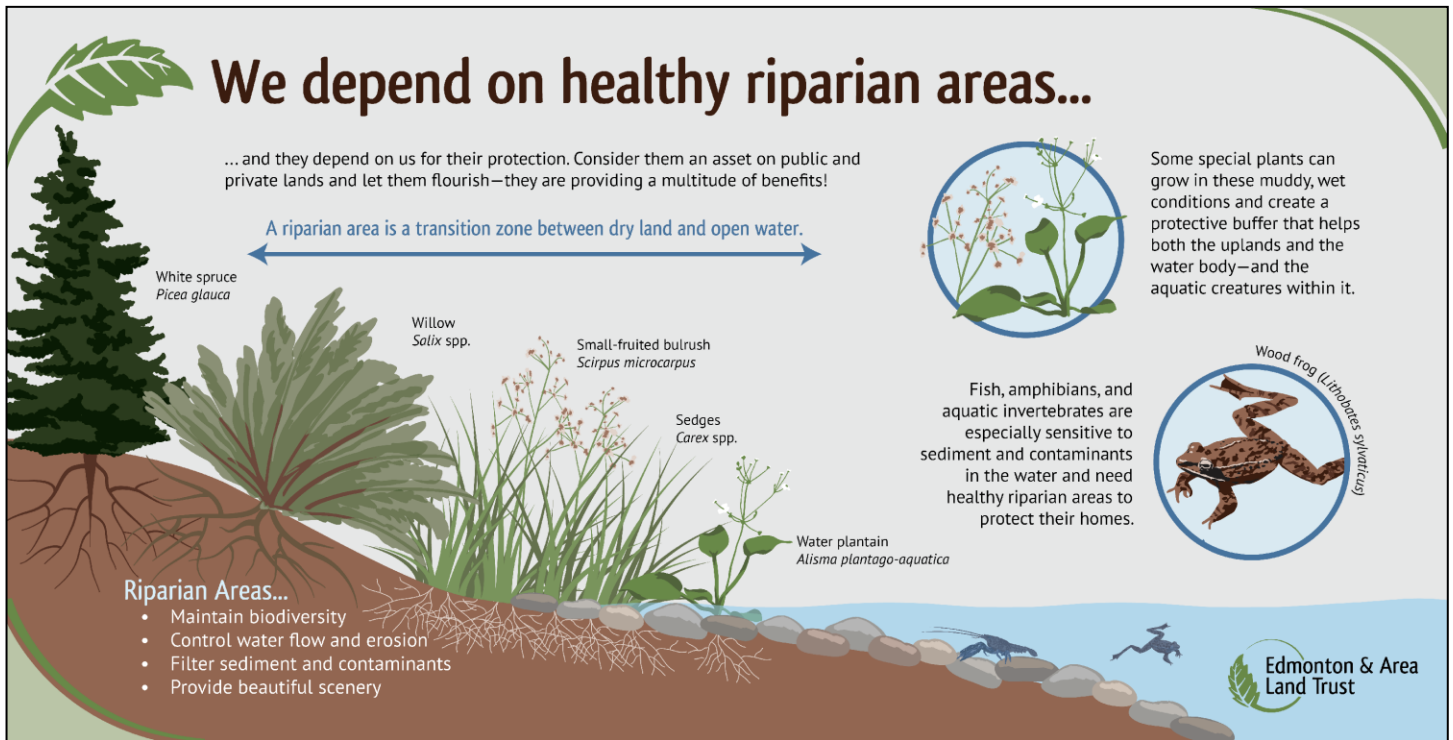
What are Riparian Areas?

- Riparian areas are transition zones between terrestrial upland and aquatic ecosystems.
- They occur along waterbodies such as streams, lakes, rivers, and wetlands.
- Riparian vegetation includes moisture-loving sedges, rushes, shrubs, grasses and forbs. Willows are commonly found in Alberta riparian lands.



Ecological Benefits of Riparian Areas

- Riparian areas are one of the most productive ecosystem types, supporting diverse flora and fauna including fish, invertebrates, reptiles, amphibians, birds, mammals, and plant communities.
- Riparian lands provide critical sheltering, rearing, feeding, and reproduction habitats for many species, some of which are not found anywhere else on the landscape.
- Riparian vegetation slows the flow of water, which allows water to seep into the soil, replenishing groundwater reserves in the spring. In drier periods, groundwater seeps back into streams to maintain streamflow.
- When streamflow slows, suspended sediments are deposited on streambanks and floodplains, and build up banks and create narrow, deep stream channels and fertile floodplains.
- Riparian vegetation acts as a filter for any sediments and chemical pollutants in run-off. This is important, as excess nutrients going into waterbodies can result in algae blooms, depleting dissolved oxygen in water, and leading to high fish mortality.
- Healthy, well-functioning riparian lands are more resilient to environmental stresses and natural or human disturbances. Healthy riparian lands do not have many weeds, since weeds colonize areas where disturbance has created bare soil. The presence of woody plants in varied age classes is a sign of ecological stability.



We depend on healthy riparian areas...

... and they depend on us for their protection. Consider them an asset on public and private lands and let them flourish—they are providing a multitude of benefits!

A riparian area is a transition zone between dry land and open water.

Riparian Areas...

- Maintain biodiversity
- Control water flow and erosion
- Filter sediment and contaminants
- Provide beautiful scenery



Some special plants can grow in these muddy, wet conditions and create a protective buffer that helps both the uplands and the water body—and the aquatic creatures within it.

Fish, amphibians, and aquatic invertebrates are especially sensitive to sediment and contaminants in the water and need healthy riparian areas to protect their homes.



Wood frog (*Lithobates sylvaticus*)

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Economic and Social Benefits of Riparian Areas

- Healthy riparian areas regulate base stream flows, ensuring a consistent and reliable supply of water. They also act as water reservoirs to slow floodwaters, and reduce flood risk.
- Water filtration performed by riparian vegetation reduces the cost of water treatment, provides clean water for livestock and irrigation, and allows for safe recreational fishing and swimming.
- Many fish species spawn in shallow streams and riparian areas. Healthy fish populations not only support healthy ecosystems, but also support recreational and commercial fishing industries.
- Historic, archaeological and cultural sites (e.g. Indigenous sites) can be found on riparian lands.

How You Can Help

- When hiking or walking in natural areas, tread lightly in riparian areas. Do not ride Off-Highway Vehicles in riparian areas, as they can damage this sensitive habitat.
- If you own land with riparian areas, take steps to maintain the health of these ecosystems. Maintain a buffer of vegetation from crops or hay, and provide off site watering for livestock. Contact Cows and Fish for additional information about managing your riparian area to avoid soil compaction and trampling of vegetation.
- If you own land with riparian areas, or other natural features, contact EALT to learn about donating your land, or how to conserve it in perpetuity.
- Support conservation and restoration of riparian areas by donating to the Edmonton and Area Land Trust.

The Edmonton and Area Land Trust plays an important role in providing health, educational, economic and social benefits for the entire capital region, both urban and suburban. Contact us for more information about research sources.

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