

Summary of the Sturgeon River Watershed Riparian Area Assessment Report




Sturgeon Watershed


Riparian lands are transitional areas between water and the surrounding land and are important because they:

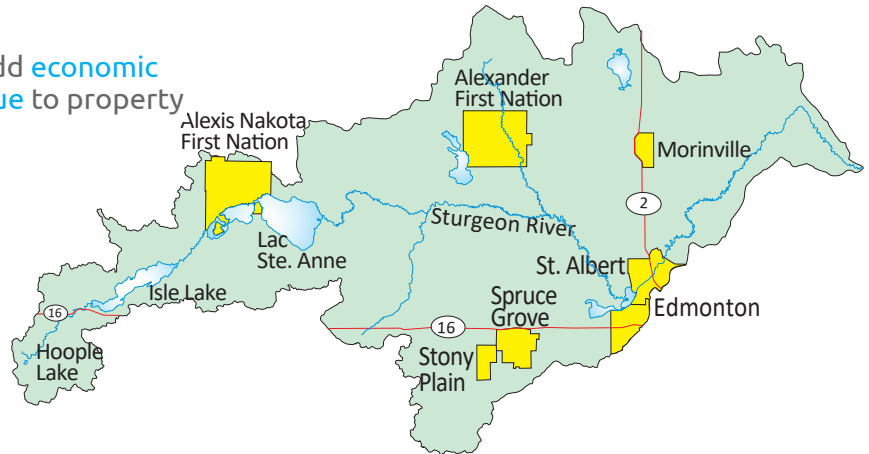
 • Improve **water quality** by filtering harmful nutrients and pollutants

 • Mitigate issues like **flood, drought and erosion**

 • Create **biodiversity** and provide habitat for birds, fish, and wildlife

 • Provide **recreational & aesthetic** areas

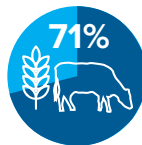
 • Add **economic value** to property



1,759 km
shoreline assessed

- Sturgeon River
- 61 creeks
- 17 lakes

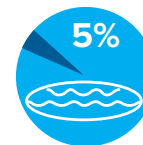
Watershed Land Cover



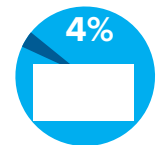
Agricultural



Natural



Water



Human Development

As urban and agricultural development progress, riparian areas play an increasingly important role in protecting water quality and watershed health.

ISSUE: Of the 100,000 km of riparian areas throughout the North Saskatchewan River watershed, less than 1% of its condition was known.

RESPONSE:

- Field-based research can never be replaced, but a complementary new high-resolution satellite imagery provides large-scale riparian area assessment
- This newly developed method called “riparian intactness” was adopted for a broader-scale project by the NSWA and has now been evaluated by the Government of Alberta

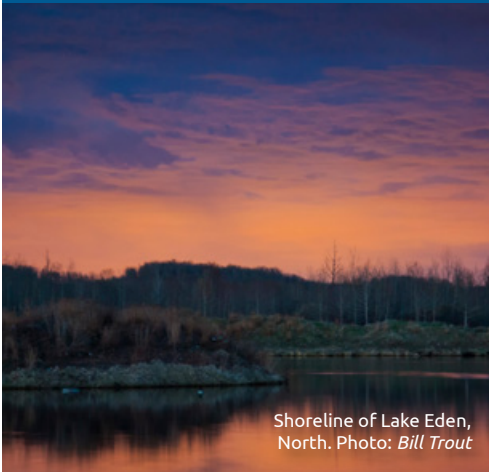
PURPOSE:

- Identify and target riparian areas that need attention due to surface flows, upland land cover or human use and impacts
- Have a starting point for more site-specific follow-up
- Establish waterbody boundaries



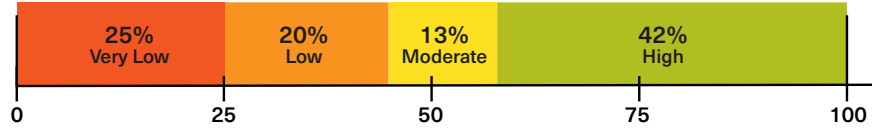
Bison strides near a lake at Elk Island Park.
Photo: Mufty Mathewson

INTACTNESS



Shoreline of Lake Eden, North. Photo: Bill Trout

The chart below shows the Sturgeon River watershed's overall intactness scores. Some of the other results are shown in the boxes above and below the chart.



16/17
lakes had ≥50% of their shorelines assessed as Moderate to High Intactness

6/8
named creeks had +25% of their shorelines assessed as Low to Very Low Intactness

58%
of Sturgeon River's shoreline was assessed as Moderate to High Intactness

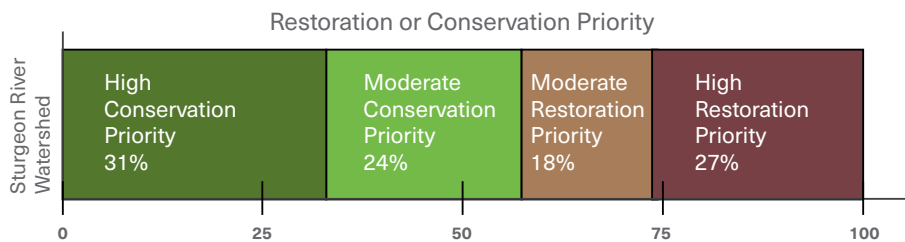
INTACTNESS MEETS PRESSURE

Together, intactness and pressure were combined to show where on the landscape riparian areas require greater conservation or restoration effort. There are four prioritization categories for land management.

		Riparian Intactness			
		High	Moderate	Low	Very Low
Catchment Pressure	Low	1	3	7	9
	Moderate	2	5	8	11
	High	4	6	10	12

High Conservation Priority
 Moderate Conservation Priority
 Moderate Restoration Priority
 High Restoration Priority

About 45% of the Sturgeon River watershed's shoreline needs active restoration while 55% of the shoreline should continue to be conserved.



ACTION ITEMS TO CONSERVE AND RESTORE RIPARIAN AREAS:

- 1 Educate and encourage stewardship of riparian habitats
- 2 Develop policies at the municipal level for land management
- 3 Provide monetary incentives for private landowners to conserve riparian habitats
- 4 Secure and conserve riparian habitats through land trusts or conservation groups



Shooting Star flower at Wagner Natural Area. Photo: Carol Rusinek

