

# Summary of the Sturgeon River Watershed Riparian Area Assessment Report



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

**1,759 km**  
shoreline  
assessed

- Sturgeon River
- 61 creeks
- 17 lakes



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



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



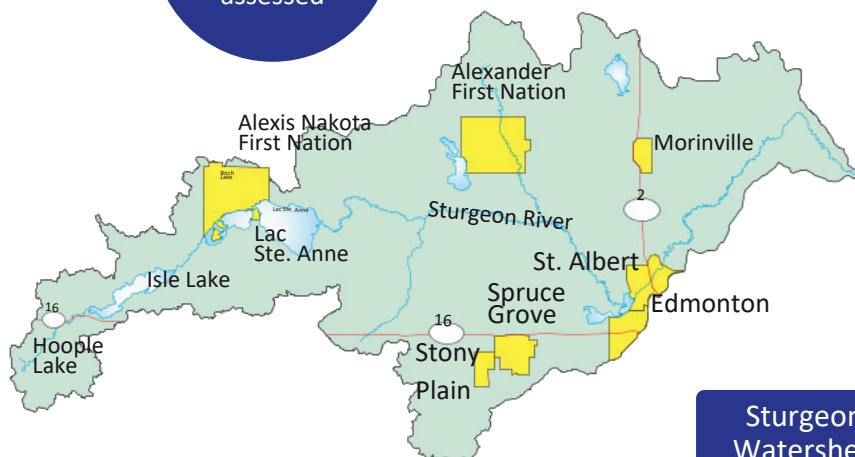
- Create **biodiversity** and provide habitat for birds, fish, and wildlife



- Add **economic value** to property



- Provide **recreational & aesthetic** areas



Sturgeon Watershed

Watershed  
Land Cover

**71%**



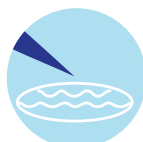
Agricultural

**20%**



Natural

**5%**



Water

**4%**



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

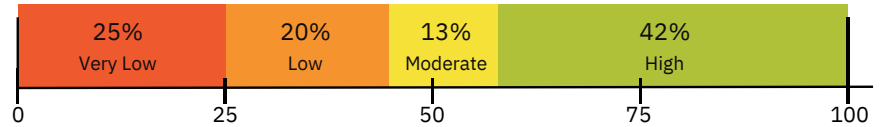


Bison strides near a lake at Elk Island Park.  
Photo: Mufty Mathewson

## INTACTNESS



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

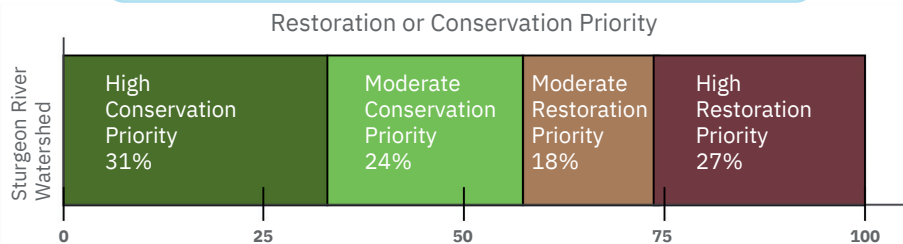
Together, intactness and pressure were combined to show where on the landscape riparian areas require greater conservation or restoration effort. There are four prioritization categories for land management.

		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		High Restoration Priority
	Moderate Conservation Priority		Moderate 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

SCIENTIFIC DATA  
FOR NSWA &  
STAKEHOLDERS

EVIDENCE  
INFORMED  
ACTION

ADAPTIVE  
MANAGEMENT  
PLANTS

CONSERVE, PROTECT &  
REHABILITATE RIPARIAN  
HABITATS

Sturgeon River Watershed Alliance

For more information, please visit [www.nswa.ab.ca](http://www.nswa.ab.ca)

To read the full report, go to:

