Municipal Watershed Partnerships

Overview of the Sturgeon River Watershed Alliance

June 21, 2018
Summit – Source Water to Drinking Water, Peace River

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Sturgeon River Watershed Alliance

Sturgeon River Watershed Alliance

NSWA
NORTH SASKATCHEWAN WATERSHED ALLIANCE

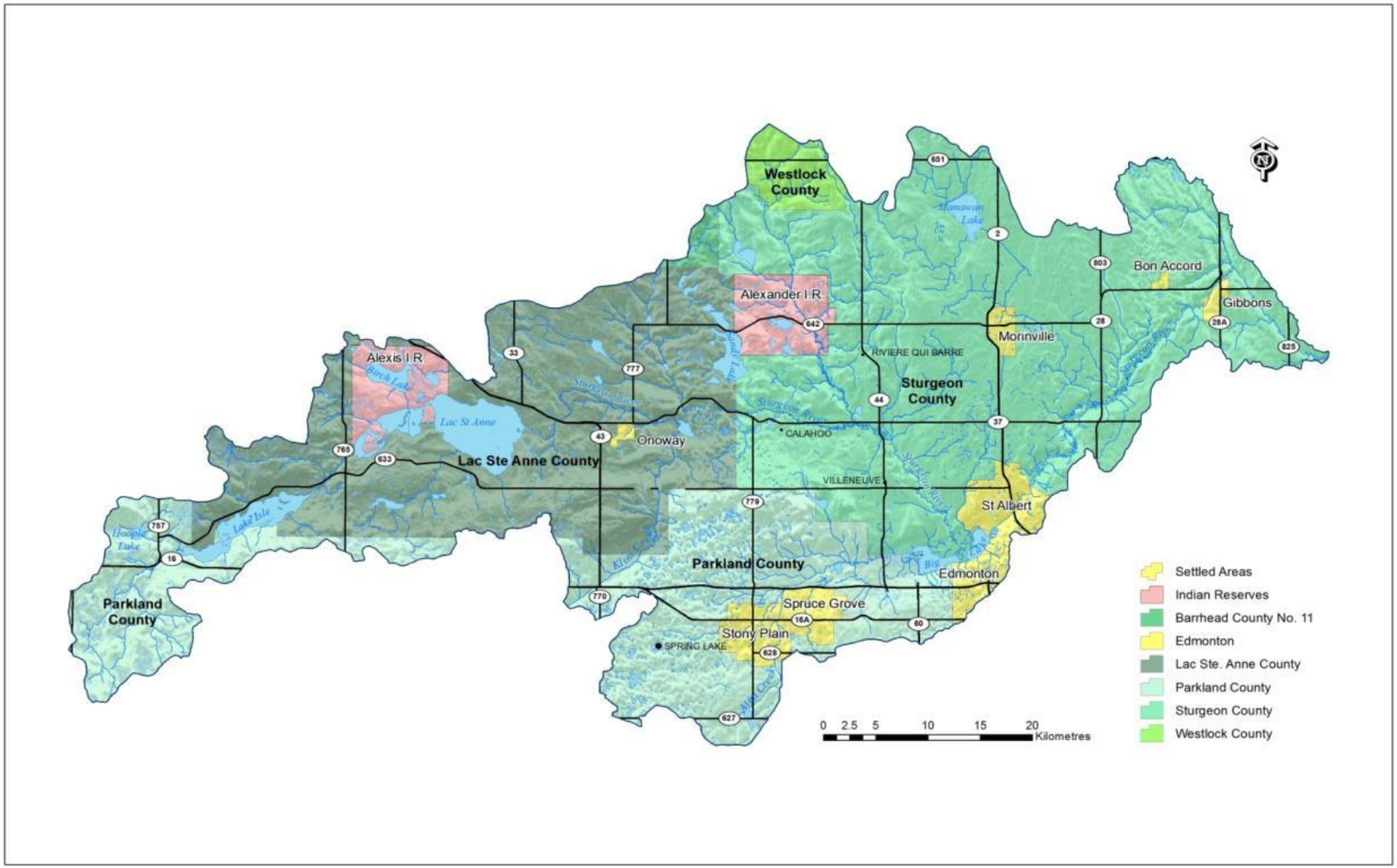
Presentation Outline

- Background Information
- Issues and Challenges
- State of the Sturgeon River Watershed
- Sturgeon River Watershed Alliance
- SRWA Technical Studies
- Next Steps
- Collaboration is key

Photos: Dave Conlin

North Saskatchewan Watershed

Sturgeon River Watershed



Sturgeon River Watershed

Sturgeon river is a small, precipitation and groundwater fed prairie river

- 260 km in length
- 3,301 sq km watershed area
- High variability in water level and flow
- Significant riparian and upland habitat diversity

Sturgeon River Watershed

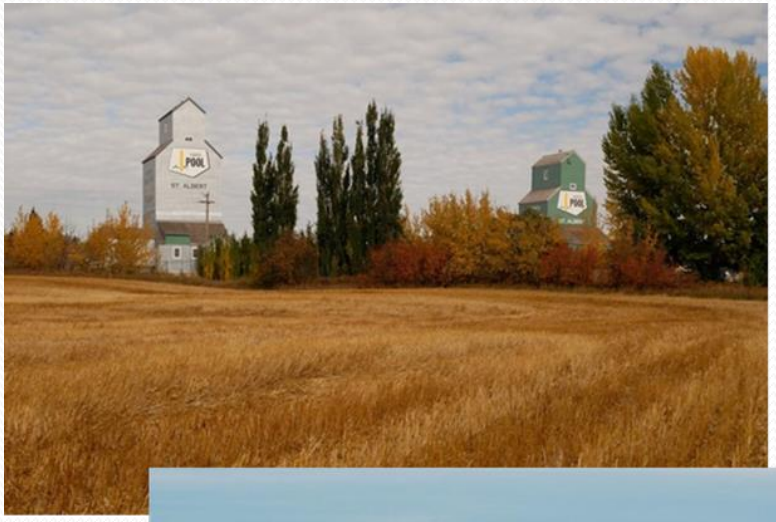
Major Tributaries:

- *Atim Creek*
- *Kilini Creek*
- *River Que Barre*
- *Carrot Creek*
- *Little Egg Creek*

Major Lakes:

- *Isle Lake*
- *Lac St. Anne*
- *Birch Lake*
- *Sandy Lake*
- *Big Lake*
- *Manawan Lake*

Sturgeon River Watershed Land Cover



- 71% agriculture
- 20% natural features
- 5% water
- 4% developed

Sturgeon River Watershed Land Use

- Urban Areas have 74.5% of population with high growth rates
- Country Residential
- Crops and livestock
- Gravel extraction
- Roads and pipelines

Issues and Challenges

Sturgeon River Watershed Issues

- Low and fluctuating water levels
- High nutrient inputs and poor water quality
- Invasive species – Flowering Rush and Asian Goldfish

Sturgeon River Watershed Issues

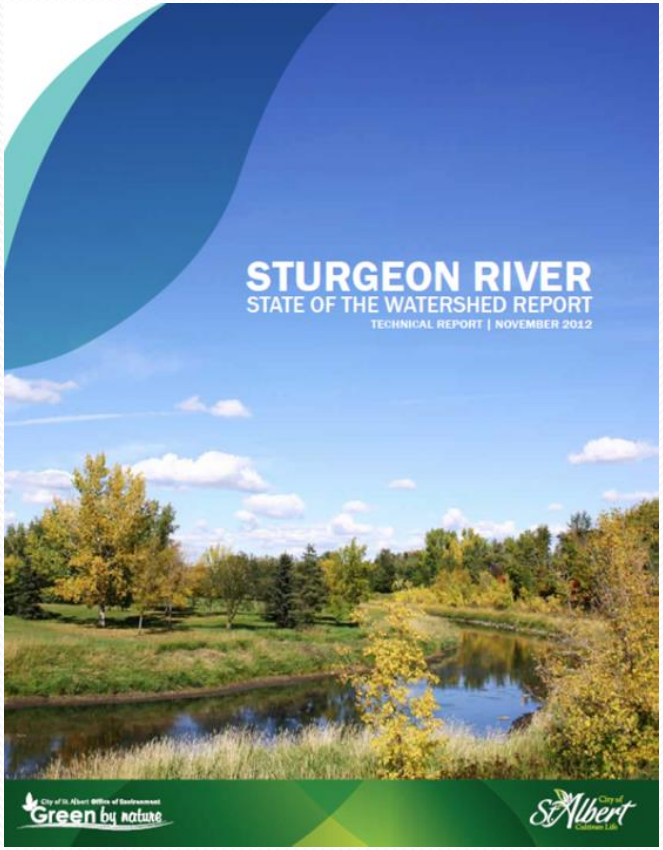
- Rapid urban development
- Loss of natural areas, riparian buffers and wetlands
- Increase in stormwater runoff and pollution
- Localized flooding and shoreline erosion

State of the Sturgeon River Watershed

State of Watershed Report

- Completed in 2012 by the City of St. Albert.
- Evaluates current knowledge and assessed overall ecological health using 15 indicators.
- Documented areas where there are data gaps.
- Recommended next steps.

Provides a benchmark against which future activities and changes can be assessed.



Questions to be Answered

- What is the current condition of the watershed?
- How does this compare to past conditions?
- What are the critical or emerging issues?
- What data/knowledge gaps need to be addressed?
- What mechanisms are in place or need to be in place to maintain and protect the health of the Sturgeon River Watershed?

Ecological Health Indicators

- 15 indicators with categories for:
  - Land Use
  - Water Quantity
  - Water Quality
  - Biological health
- Graded POOR, FAIR or GOOD
- Insufficient Data

Overall Grade and Key Issues

- Minimize impacts of urban sprawl
- Prevent further loss of natural areas especially wetlands and riparian areas
- Reduce amounts of pollutants entering the watershed - fertilizers, pesticides and road salts

➢ Establish a municipally lead watershed group

Sturgeon River Watershed Alliance

Sturgeon River Watershed Alliance

- Establish a municipally lead watershed group

- Municipalities have a significant influence on land development

- Watershed management at the sub-watershed level is effective has each area has its own issues related to variations in landscape, land uses and types of development

Sturgeon River Watershed Alliance

- SRWA formed in 2013
- Composed of Steering and Technical Advisory Committees
- Technical and administrative support from NSWA
- 10 member municipalities

Sturgeon River Watershed Alliance

- Parkland County
- City of St. Albert
- Sturgeon County
- City of Edmonton
- Lac St. Anne County
- City of Spruce Grove
- Town of Onoway
- Town of Morinville
- Town of Gibbons
- SLVACE

SRWA Technical Studies

SRWA Technical Studies

- SRWA partnership has been able to secure over $500,000 in grants
- NSWA able to coordinate grants and consultants
- Municipal staff are able to collaborate and use information to develop and align planning and environmental policies

SRWA Technical Studies

Water Quantity

- ✓ Literature review and summary of historic data
- ✓ Lake water balance studies for Isle Lake and Lac St. Anne
- ✓ Groundwater overview
- • Watershed modelling to show impacts from development

Ecosystem Health

- ✓ Riparian habitat condition assessment of river, creeks and lakes
- • Fish habitat condition assessment including dissolved oxygen in winter

SRWA Technical Studies

Water Quality

- Overview of current and historic conditions

Landscape and Hydrology

- How land cover and use can affect overland flow

Gravel Impacts

- On surface and ground water quality and flow

Intermunicipal Policy Alignment

- Review of existing policies and legislation; recommendations for municipal policy/bylaw alignment

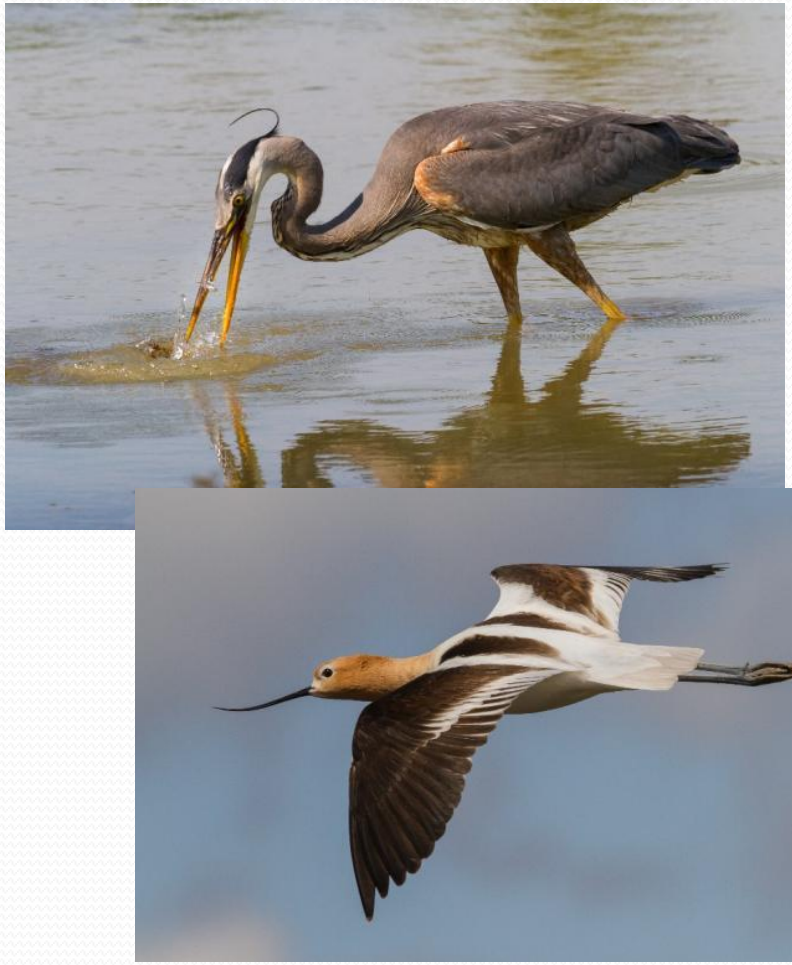
Next Steps

Next Steps

- Completion of technical studies
- Communication of results to Steering Committee
- Determine key areas to address with policies – partnership approach
- Support and align IDP plans and processes
- Provide input into draft provincial North Saskatchewan Land Use Framework

Next Steps

- Identification and prioritization of conservation and restoration opportunities
- Information for public education and awareness
- Work with Alberta Environment to improve monitoring and approvals processes
- Development of Integrated Watershed Management Plan



What is an Integrated Watershed Management Plan?

Outlines actions and responsibilities for:

- Water quality protection
- Water supply management
- Aquatic ecosystem protection
- Groundwater protection
- Alignment of land and water
- Planning at regional scale

Collaboration is Key

Collaboration is Key

- There is no real precedent for watershed planning work
- We need to speak as one voice in our watersheds
- Create cohesion through municipal leadership and collaboration
- Indigenous engagement is essential

Questions for Elected Officials

- How do the decisions I make affect the watershed?
- Where do I need to gain knowledge?
- How can my experience help others make good decisions?
- What can I do to move it forward?
- Where do conversations need to happen? – the importance of advocacy

Summary

"If everyone is moving forward together, then success takes care of itself."

Henry Ford

Thank You!

Questions?