



Wascana Upper Qu'Appelle Watersheds  
Association Taking Responsibility

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## Riparian Health Assessment Project

### Background and Fact Sheet

#### Introduction

Since 2012, WUQWATR has been conducting field studies for our Riparian Health Assessment Project of Wascana Creek and its tributaries. This summer we will be working downstream of Regina city limits to where the creek flows into the Qu'Appelle River.

Data from the Riparian Health Assessment Project will help us assess the impacts of erosion and flooding, as well as urban development and agricultural practices. The overall findings of the project will be made available to local residents and governments, and the general public. **Site-specific results will only be provided to landowners, unless permission has been given.**

#### Riparian Areas

A riparian area is a *transitional area* between a water body and the surrounding upland. They have vegetation that prefers and survives well in wet environments. Soils are modified by the abundance of water and by stream processes. The distinctive features of a riparian area and their associated physical processes make riparian zones crucial in the functioning of a river or stream.

According to the Prairie Conservation Action Plan (PCAP), a healthy riparian area has 8 *key ecological functions* or *services*. They:

1. trap sediment
2. build and maintain streambanks
3. store flood water and slow stream flow
4. recharge the underground aquifers
5. filter and buffer water
6. reduce speed and dissipate stream energy
7. maintain biodiversity
8. create primary productivity by promoting plant growth.

The vegetation found in a riparian area is an excellent indicator of the health of the riparian area and the water body itself. The vegetation and physical structure of the streambank are the indicators we use to assess riparian health. We do this by walking the area, using visual observations and taking pictures. No ATV's or machinery will be used.

## Riparian Health Assessment

Because no previous riparian assessments have been done on Wascana Creek, the data gathered will be benchmark data, to be used for future reference. The Riparian Health Assessment is score-based with each individual site having a percent score out of 100 possible points. The total score falls into three categories: “Healthy”, “Healthy with Problems”, and “Unhealthy”. The 12 questions are based on:

- Total vegetation cover, state of the trees and shrubs;
- Presence of *invasive species* such as smooth brome and Canada thistle, and *disturbance-caused species* such as lamb’s quarters and foxtail barley
- Level of stream bank erosion, level of human alteration of stream banks; and vertical stability of the stream channel.

Site selection is generally random, but sites that are considered representative or critical will be included.

## Wascana Creek and Tributaries

Wascana Creek is naturally a seasonal stream that stretches from its headwaters south of Vibank to where it joins the Qu’Appelle River west of Lumsden. Some key factors that affect water quality, structural integrity, and riparian health along Wascana Creek and its tributaries include:

- Small watershed area with high population density
- Located in a highly modified environment
- Variety of land uses: *agricultural*; *industrial* (Global Transportation Hub, etc.); *residential* (Regina, Deer Valley Estates, etc.); *recreational* (Sherwood Forest Golf and Country Club, Deer Valley Golf, etc.); and *conservation areas* (Condie Nature Refuge, Wascana Trails, etc.)

Studies have shown that there is also nutrient loading downstream from the City of Regina’s Wastewater Treatment Plant. Recently, inputs from the Wastewater Treatment Plant and storm water from the city have resulted in year-round flow. The increased flow has an impact on the riparian vegetation, which can lead to flooding and erosion problems.

## Land Access and Privacy

Most of the land around the creek is privately owned and allowing access is entirely on a voluntary basis. However, it is a wonderful learning opportunity if you are interested in us coming out and doing an assessment on your land. **Privacy is a priority** for WUQWATR so any information gathered on your land will stay confidential, but we are more than willing to share our results from your land with you. If you have any questions about the Riparian Health Assessment Project or our organization, call our office at 1(306)757-1704 or visit our website at [www.wuqwatr.ca](http://www.wuqwatr.ca).