A photograph of a river scene. In the foreground, there's a body of water with some ripples. In the middle ground, there are dense green trees. In the background, a white building with a red roof is visible across the water. The overall atmosphere is calm and natural.

Penticton Oxbows Restoration

A Prospectus

Rejuvenating the Okanagan River Oxbows in Penticton

Introduction

The Okanagan River between Okanagan and Skaha lakes has been altered extensively over the years, from a meandering course with abundant riparian vegetation, to a channel through a highly developed landscape. What were once natural meanders of the Okanagan River have become cut off from the main river, and are now stranded as old

healthy riparian areas once existed, there are now only remnant wetlands showing significant signs of neglect, with restricted riparian vegetation.



The Friends of the Oxbows is working to restore and rejuvenate some to the oxbows in the Penticton area. We believe there are opportunities to restore some riparian vegetation, improve water flow, and manage invasive species. We envision a much more attractive and productive stretch of wetland habitat along Hwy 97 in Penticton that will be more aesthetically appealing and ecologically productive than the degraded habitats there now.



Penticton Oxbows and the Okanagan River Flood Plain



Oxbows form naturally when a horseshoe bend in a meandering river is cut off from the main river at the narrow end of the bend. Oxbows can also be formed artificially when a river is straightened to facilitate navigation or to control flooding. Oxbows have formed in several locations along the Okanagan River, most notably in the area between Okanagan and Skaha lakes, and in the Osoyoos Lake area, both from natural processes and as a result of the channelization of the Okanagan River.

The channelization of the river was the result of a federal/provincial initiative to manage floods in the Okanagan valley and to provide potential irrigation for the dry uplands. That initiative included numerous dams, weirs and sediment catchments in the valley bottom and on tributary streams throughout the basin. In addition to flood control, the initiative provided opportunities for upgrading irrigation for agriculture, provided more land and water for urban and industrial development, and provided opportunities for increasing water-oriented tourism.



Presently, the Penticton oxbows show the accumulated impacts of neglect and abuse. In addition to sedimentation caused by stormwater flows into some oxbows, ongoing impacts of stagnation from reduced water flows, the presence of introduced invasive plants and animals, the remnants of historic structures, the removal of vegetation, and a concentration of natural and human debris are apparent.



Although it was not likely fully appreciated at the time, there were significant impacts to fish and migratory birds. Feeding, breeding and migration staging habitats were altered and much reduced. Subsequent growth in agriculture, industry and urban development compounded those impacts.

Oxbow Rejuvenation Goals

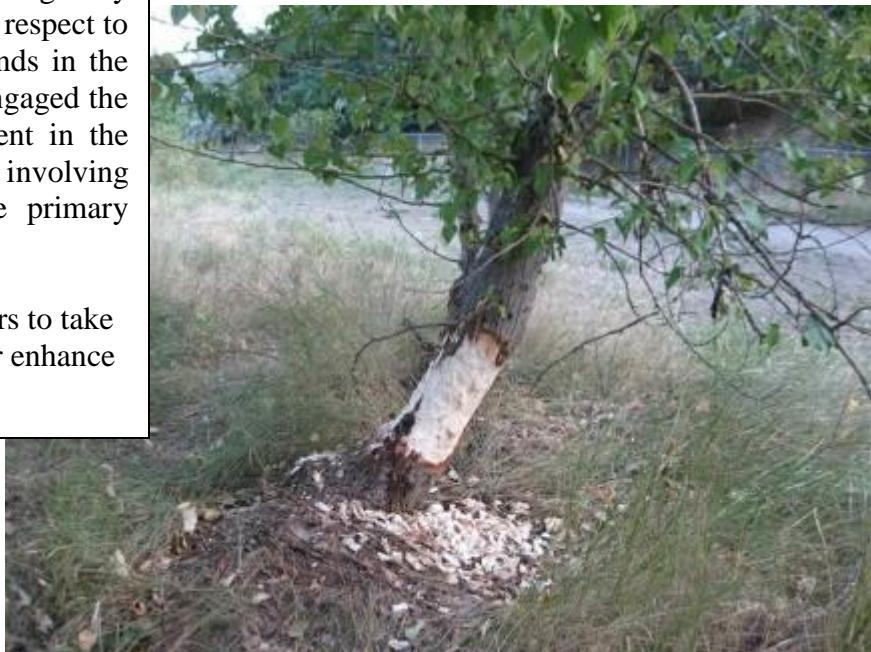
We intend to demonstrate the importance and usefulness of restoring riparian vegetation on at least two oxbows within the city of Penticton over the next five years.

By 2015, we intend to have at least one storm water interceptor installed on one oxbow to demonstrate how siltation can be managed to increase water quality in the oxbows while at the same time allowing the oxbow to receive storm water runoff.

We plan to have at least one oxbow reconnected to a water source so that a minimal flowage is maintained year-round.

Through these actions we will have greatly increased our knowledge base with respect to the values and needs of the wetlands in the City of Penticton. We will have engaged the public and all levels of government in the long-term rehabilitation initiatives involving our oxbows and wetlands at the primary entrances to our city.

In the long run, this will allow others to take on specific projects that will further enhance the overall efforts to sustain



Our vision is for the oxbows to be returned to a more natural state than they are in now, with healthy riparian vegetation, and water flow and water quality restored to the extent possible, to enhance the quality of life for Penticton residents and visitors alike.

Friends of the Oxbows

The Friends of the Oxbows is an informal group of like-minded individuals concerned about the future of the oxbows and wetlands along Hwy 97 in Penticton. It was formed in 2008 by four people residing on one oxbow, which was deteriorating rapidly as a result of sediment washing in from storm water runoff. Since then it has grown to a membership of over 45. The group has conducted tours of the oxbows, lobbied local politicians for support, and worked with city managers to highlight the importance of these wetlands, and to develop methods for their rejuvenation and improvement.

Our mission is to work cooperatively with others and to encourage partnerships to work to restore native species and their habitats in the Penticton oxbows.

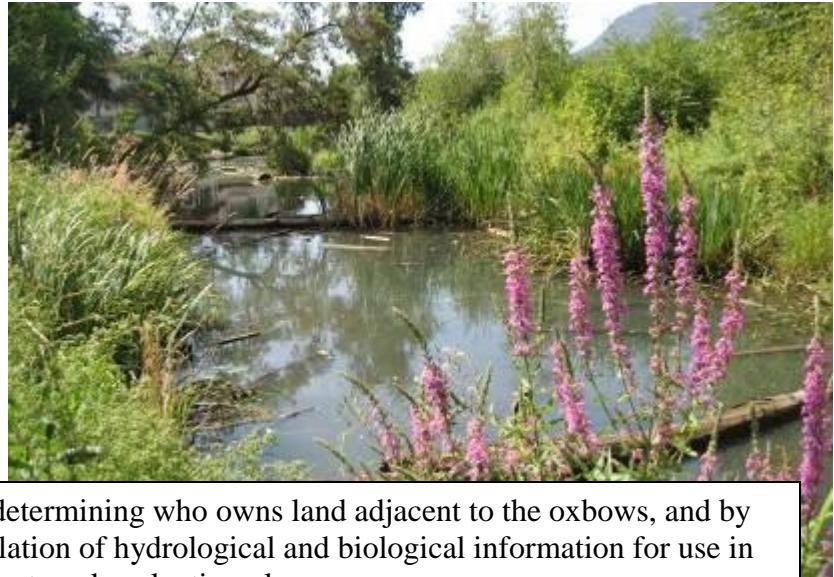
Principles

Development and implementation of a program to rejuvenate oxbows in the Penticton area should be guided by the following principles:

-making will be guided and adjusted by ongoing scientific research, monitoring, and evaluation.



Strategies



- 1) Increase our knowledge base by determining who owns land adjacent to the oxbows, and by prioritizing the collection and collation of hydrological and biological information for use in developing protection, enhancement, and evaluation plans.
- 2) Begin restoring riparian vegetation by working with key landowners and developers to set aside, restore and replant where feasible native riparian species. In addition we will develop management plans for invasive species.
- 3) Work to manage silt loads entering the waste water management plan and lobbying for the installation of at least one storm water interceptor on the oxbow near Brandon Avenue.
- 4) Increase public support by increasing group membership, contacting other conservation agencies and organizations to enlist them in our cause, and by meeting with local, provincial, federal and band politicians and officials.

Prospectus



There are many hurdles to overcome before we can realize our goal of improving the aesthetic appeal and function of the oxbows in the City of Penticton. This prospectus has been prepared to help us encourage potential partners to work with us to achieve our mission.

What Success Will Look Like



Measures of success of the efforts of the Friends of the Oxbows will be improvements in water quality and quantity, increases in the extent of riparian vegetation, and a general improvement in the aesthetic appeal of the oxbows along Hwy 97 in Penticton.

**Contact the Friends of the Oxbows at
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for more information and to see how you can help.
or visit
<http://members.shaw.ca/pentictonoxbows/home.html>**