

Osoyoos Oxbows Restoration Society (\$14,000)

**Project Title:** Rewatering of Quintal and Winters Oxbows

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The Osoyoos Oxbows Restoration Society was conceived in the spring of 2004 to work to prevent further deterioration of water quality conditions in and around Osoyoos Lake and its upstream floodplain. The Society feels that, in addition to installing proper sewers all around the lake, and enhancing riparian buffer zones, qualitative improvements to the primary source of inflow into the Lake are also required. The primary flow to Osoyoos Lake is from the channelized Okanagan River. The Society is dedicated to reducing the sediment load of the Okanagan River and protecting the floodplain by utilizing the oxbows that were cut off when the river was channelized in the mid 1950's.

The intent of this project is to improve water quality entering Osoyoos Lake by diverting Okanagan River water through the oxbows that once constituted the Okanagan River. By allowing the river water to again pass through areas more heavily vegetated by emergent and submerged aquatic plants it is believed the level of nutrients and the amount of silt carried by the Okanagan River can be reduced before it enters the diminished water quality environment of Osoyoos Lake.

The current project has been a collaborative effort principally with Ducks Unlimited Canada, on whose property the Winter's Oxbow lies. Since the feasibility work began in 2005 sources of funding have come from the Regional District Okanagan Similkameen, Town of Osoyoos, Fortis BC, Ministry of Transportation & Highways, local businesses, and developers working in the South Okanagan.

The Okanagan Basin Water Board has provided funding for installation and operation of a pump system in order to bring water from the channelized portion of the river into the still waters of Winters Oxbow. The additional inputs will increase flow in the oxbow, and it is hoped that the oxbow will filter the water pumped from the river and potentially improve the quality.

Obstacles encountered are mainly those associated with installing the pump, including the procurement of all necessary permits, and the scheduling of work to make the installations. The pump is now operational.

With the pump now operational we intend to raise the water level of the oxbow above that of the river channel at the outlet, to force the water to flow in the desired direction in the oxbow, namely downstream. In the meantime we have been collecting water quality samples from the location of the pump inlet pipe in the Okanagan River, and from the oxbow at its upstream end.

Our Society remains committed to improving water quality by re-connecting the oxbows to the main Okanagan River channel. The results of this project will be assessed this fall to see how we should proceed to re-connect the oxbows in a more permanent fashion.

Improving water quality entering Osoyoos Lake remains a priority for many organizations throughout the south Okanagan. This project will provide data on how well this can be accomplished by diverting water back into the oxbows. At the same time, it will improve the biotic environment of the oxbows, in a time when land use changes continue to impact natural areas in the south Okanagan at an ever-increasing rate. Properties with oxbows will remain critical remaining components of the once extensive riparian areas on the Okanagan River. Efforts designed to restore and improve their ability to function as riparian areas will make significant contributions to both water quality improvements in the Okanagan River, and to the conservation of rapidly dwindling biodiversity in one of BC's most unique and diverse areas.

