

Fisheries

- 1. Where (which stream, river or lake) should agencies focus aquatic ecosystem improvement projects in this watershed? Why?**

The largest waterbody in the study area is Oak Lake. It is and will continue to be an extremely popular and important sport fishery and recreational area in that corner of the province. The Oak Lake Creel Census and Economic Survey of 1987 revealed the economic importance to the local area. The province annual stocks Oak Lake in the spring with approximately 800,000 walleye fry, depending on availability from the hatchery. There is believed to be little or none natural reproduction that occurs at Oak Lake or its tributary. On the other hand, Northern pike, yellow perch and white suckers, the other large bodied fish that inhabit the lake, all reproduce naturally.

All the tributaries of the Souris River and Oak Lake are important and their riparian areas should be protected.

- 2. Are there any previous studies or reports related to aquatic ecosystems available to this watershed team?**

The above mentioned report and fisheries biennial inventory netting at Oak Lake.

- 3. There are many small dams posing a barrier to fish passage in the watershed. Which dams pose the largest threat to fisheries in the watershed?**

The Souris River has numerous dams but the major of the dams upstream of the Town of Souris have been made fish friendly. The dam at the Town of Souris is a barrier to fish and couple of attempts to create fish passage around this structure has failed due to funding dollars and support.

The dam at Oak Lake is also a barrier to fish. When the Oak Lake dam was built, a type of fish passage was constructed into the east side but has never worked. Another fish ladder attempt was made in the mid 1990s but it was unsuccessful.

- 4. What fish passage alternatives should be considered?**

Both of the above structures could be made to pass migrating fish by constructing a series of pools downstream of both structures, basically creating an aquatic staircase. Strongly suggest employing a consultant to develop options to overcome these barriers.

- 5. If riparian improvement projects were to be focused to one area of the watershed, where would you focus these efforts?**

Riparian improvement projects should be focused on the Pipestone Creek and Oak Lake. The province has already flown this area and identified livestock operations that are of concern. Lack of funding was the major stumbling blocks in correcting these areas.

6. Aeration projects have been suggested for Oak Lake. What are the issues related to maintaining aeration systems in this water body?

Oak Lake is a 7000 acre shallow waterbody. The largest waterbody that has been successfully aerated to date is Rossman Lake and it is only 530 acres. If it were just as simple as just installing multiple of these Rossman Lake units into Oak Lake, it would require 13 units. The capital costs might be available from government but the operating dollars would have to come from elsewhere. Rossman Lake aeration cost approximately \$820 / month plus taxes. The system is operated only for 5 months in the winter. The major issue related in maintaining this type of aeration system at Oak Lake would be the high annual operating costs and liability associated with multiple open water areas during the winter.

Presently there is no known technology that could cost effectively aerate a waterbody of Oak Lake's size. Ideas of partial or limited aeration systems have been attempted but unfortunately they do not guarantee against winter fish kill.

7. Are there any concerns about invasive species in the watershed? Which species? Where? Can you provide recommendations to prevent further spread?

There are always concerns about the accidental introduction of invasive species in all watersheds. This can happen from numerous ways including live wells in fishing boats, bait bucket transfers and individuals "feeling" sorry for their pet goldfish.

Rusty Crayfish have been identified in the eastern part of the province and are used as bait by bass fishermen. There was a study completed last year in the western part of the province but no rusty crayfish were found.

Other species such as Round Goby (fish), Rocksnail (algae), Purple Loosestrife (plant) and Zebra Mussel (invertebrate) have not been identified in the western part of southern Manitoba.

Continued education and information is the most effective avenue to prevent further spread or introduction.

8. A number of public comments referenced cleaning debris from creeks and streams. Is there any method, time of year, or specific locations where dead fall could be removed?

The West Souris River Conservation District undertook a dead and diseased Elm tree removal at specific locations on the Pipestone Creek. Upstream locations of bridge and culvert crossing were targeted in an attempt to reduce damage to infrastructure during high water flows in the spring. DFO only allowed the clearing of dead trees during the winter months which is less destructive to the aquatic habitat than during the open water season. All trees were cut by chainsaws and removed out of the riparian area. Please check with the manager of the WSRCD for more details.

On the other hand, trees and debris play a vital role in the creeks ecology. They provide shade, cover, areas of slow water and back eddies and a source of food to the fish in the area.