

Boyne-Morris IWMP – Fisheries Information Requirements

1. **What fish species utilize waterways within this watershed?**

The main surface waterbodies within this area are Pelly's Lake, Stephenfield Lake, Boyne River, Tobacco Creek, Shannon Creek, Morris River, Norquay Channel, Little Morris River and the Red River which serves as a boundary.

The following information is from the Fish Habitat and Inventory Classification System:

Pelly's Lake – no data

Stephenfield Lake (including upper Boyne) - see attached Stephenfield TAC Fisheries Report from 2003.

Boyne River

The Boyne River provides year round habitat for both large and small bodied fish species. It is classified as a Class 2 waterbody – a waterbody that has slight limitations to the production of fish. Flow levels and migration blockages were identified as limiting factors.

Fish Species: Central Mudminnow, Brook Stickleback, Blacknose Shiner, Common Shiner, Pearl Dace, Banded Killifish, Iowa Darter, Blacknose Dace, River Darter, Emerald Shiner, Finescale Dace, Blackside Darter, Creek Chub, Fathead Minnow, Johnny Darter, Northern Pike, Walleye, White Sucker, Yellow Perch

General uses: recreational angling

Please also see the TAC report for Stephenfield Reservoir.

Norquay Channel (Lower Boyne channelized stretch)

Fish Species: Brook Stickleback, Northern Pike, Yellow Perch, Creek Chub, Black Bullhead, Iowa Darter, Carp, River Darter, Central Mudminnow, Sauger, Fathead Minnow, Spotfin Shiner, Blackside Darter, Johnny Darter, Sand Shiner, Tadpole Madtom, Trout Perch, White Sucker

Morris River

Fish Species: Northern Pike, Black Bullhead, Brook Stickleback, Fathead Minnow, River Shiner, Trout Perch, Quillback, Sand Shiner

Tobacco Creek

Provides seasonal habitat (spawning, nursery, food) for small bodied and potentially large bodied fish species, and may provide year round habitat for small bodied species.

Fish Species: Sand Shiner, Fathead Minnow, Brook Stickleback, Finescale Dace, Central Mudminnow, Creek Chub

Shannon Creek

Fish Species: Black Bullhead, Blackside Darter; Carp; Fathead Minnow, Sand Shiner, Northern Pike, Brook Stickleback, Creek Chub, Central Mudminnow

Limiting Habitat Conditions identified: temperatures too high due to agricultural land clearing, flows below optimum levels due to water regulation

Provides seasonal fish habitat for small and large bodied fish species, and may provide year round habitat for small bodied species.

Little Morris River

Fish Species: Fathead Minnows, Black Bullhead, Sand Shiner, Brook Stickleback

2. On which waterways or water bodies should agencies focus aquatic ecosystem improvement projects in this watershed? Why?

Each of these waterbodies have value, either for providing year round habitat for fish species, seasonal habitat during critical times for fish and/or indirectly by contributing to the downstream health of the receiving waterbody. All these waterbodies end up contributing to the Red River and ultimately Lake Winnipeg. Land use activities (riparian clearing, channel straightening, water withdrawals) have negatively impacted many sections of these waterbodies contributing to degraded aquatic ecosystems. Historically watershed planning would involve hiring a consultant to assess waterbodies and identify a list of priority actions. There has not been the capacity to do this. Overall implementing measures that aim to retain, enhance or rehabilitate riparian areas; minimize channelization, or incorporate more fish friendly designs; ensure there are minimum in stream flow requirements to support aquatic ecosystems, would contribute to healthier systems.

3. Are their concerns with aquatic invasive species in the watershed? If yes, which species? Can you provide recommendations to prevent their establishment or further spread?

Common carp are found in the lower reaches of some of the waterbodies. Although not listed as a prohibited species in provincial and federal Aquatic Invasive Species legislation, consideration should be given when looking at removing potential blockages to upstream migration. While connectivity of a stream is important, if removal provides the ability for a species to move upstream, if there is favorable habitat for the species, then this might counter other benefits.

Zebra mussels are found in the Red River and it can be reasonably safe to assume that they may be present in the lower reaches of any tributaries that drain into the Red, at least up to the first impassable barrier.

There are always other species of concern. Prevention is key and the key to prevention is outreach. Collaborate with the AIS program to include AIS awareness material, including the key required steps to prevent their introduction and spread (Clean, Drain, Dry) into presentations given by the CD's; on municipal websites (or link to AIS site), etc. Ensure construction activities that the CD's are responsible for comply with the AIS regulations. Understand AIS of concern and how to identify so they can be reported when found.

4. Can you please provide a copy of the Fisheries Management Objectives for this watershed? If none are available at this time, when might they be developed?

There are no specific FMOs developed for this watershed. Fisheries section vision as documented in the 2006 Strategic Plan is “viable, vital fisheries resources that provide cultural, leisure and economic benefits today and for future generations.”

The Fish Science and Fish Culture program’s vision as stated in the 2006 the Aquatic Ecosystem Program Plan is “healthy, productive and diverse aquatic ecosystems, managed through an ecological approach to allow for the use, enjoyment and benefit of current and future generations.” The following goals were identified in the section plan:

1. Protect and conserve the biodiversity of indigenous (native) fish communities.
2. Protect, enhance and restore fish habitat to maintain or increase productive capacity and sustain native biological diversity through participation in integrated watershed planning programs.
3. Improve and expand the quality and availability of science required for appropriate planning and management of aquatic ecosystems.
4. Enhance understanding of the interrelationships among fish, the aquatic ecosystem, the environment and human activities.
5. Through a fish culture program, enhance, restore and develop fish stocks in a way that ensure ecological sustainability and economic viability while meeting resource enhancement objectives.
6. Protect and monitor the health of wild and cultured fish to minimize incidence and spread of disease.
7. In addition to these core fisheries ethics, recent interest between Manitoba and Canada on understanding the biogeographic range of Bigmouth Buffalo in agro Manitoba should be given some consideration for this watershed. Although there are no known captures of this species in these streams, the species is found in the Red River and the role these systems may play or have played as prt of this species’ life-history should be considered.

Please note that the Boyne River was also identified by Fisheries Branch in 2008 (year) as one of 5 priority streams on which to develop instream flow requirements.

5. Based on your observed data, have there been any identified fish kills within the Boyne-Morris watershed? If yes, please provide some information on the timing and cause (if available).

Certainly fish kills have been documented in Stephenfield Reservoir. Please see the TAC report attached to this email.