

Fish, Fisheries and Fisheries Management

**TSW Review Panel
Presentation**

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Who am I?

I am...

- Aquatic Biologist, professionally for 7 years
- Vice President of the Lindsay Bassmasters
- Assistant Conservation Director, OBFN
- Environmental Advisory Council for CoKL
- a resident of Lindsay, Ontario
- an avid angler

Fish

The Trent-Severn Waterway and Source Lakes is home to a variety of fish species:

Game Fish Species:

- largemouth bass, smallmouth bass, walleye, muskellunge, northern pike, lake trout, brook trout, lake whitefish

Non-Game Fish Species:

- panfish (pumpkinseed, bluegill, crappie, yellow perch), common carp, bowfin, minnow species (30+ species)

Fish Species at Risk

- river herring, channel darter, American eel, lake sturgeon

Fish

What do fish need to survive?

- Spawning Habitat
- Feeding, Foraging Habitat
- Cover, Protection from Predators
- Wintering Habitat

...what do all of these needs have in common?

Fish need water!

Fish

- Water Level fluctuations in all aquatic systems is a natural phenomenon.
- However, rapid/drastric fluctuations can be detrimental to fishes during the most critical times of the year:
 - **Spawning Periods**
 - **Winter Periods**

Fish

Spawning Periods: variations in water quantity (depth +/- and/or flow +/-) can impact the spawning success of various fish species

Results: potential loss of year classes or reduced year class strength, reduced population recruitment, overall population reductions.

Winter Periods: water level variation (depth +/-) can be detrimental to the wintering habitat for various fish species

Results: potential for unnatural fish mortality during winter/spring periods (excessive winter kill), reduced population size, reduction in spawning individuals, reduced recruitment, reduced overall populations.

Fisheries

Definition: FISHERY

“A fishery (plural: fisheries) is an organized effort by humans to catch fish or other aquatic species, an activity known as fishing. Generally, a fishery exists for the purpose of providing human food, although other aims are possible such as sport or recreational fishing.”

Source: Wikipedia, 2007

Fisheries

- The Trent-Severn Waterway and Source Lakes contain nearly as many fisheries as there are fish species.
- Fisheries in the Trent-Severn Waterway and Source Lakes are dominated by recreational angling.
- Most recreational angling is species specific, but some anglers love catching anything!

Fisheries

Examples of common fish species specific fisheries includes:

- walleye
- bass (largemouth and smallmouth)
- muskellunge
- northern pike
- common carp
- panfish (bluegill, yellow perch, pumpkinseed, rock bass)
- lake trout

Fisheries

Ontario Fisheries FACTS:

- In 2000 there were 1.4 million adult anglers in Ontario
- 44, 000 from other provinces
- 576, 000 from the United States
- Of all three MNR Regions in Ontario the Southern Region boasts
 - 75% of all resident angling effort.
 - 22% of United States angling effort

Source: J. Wiltshire, OMNR 2004

Fisheries

Ontario Fisheries FACTS:

- The Trent Severn Waterway contains some of the heaviest fished lakes in the Province:
 - Lake Simcoe (No. 6)
 - Trent System (No. 7)
 - Rice Lake (No. 8)
- Ontario Lakes fished by U.S. Residents:
 - Rice Lake (No. 4)

Fisheries

Ontario Fisheries FACTS:

- In 2000, Ontario Anglers spent \$1.3 billion on major purchases
- In 2000, Ontario Anglers spent \$991 million on expenditures (food, gas, lodging, fishing packages, etc.)
- ~ **\$2.3 billion was spent in Ontario (2000)**
- This makes up 35% of the national angling expenditures for Canada

Source: J. Wiltshire, OMNR 2004

Fisheries



Bass Fishing and the TSW

- OBFN is comprised of over 800 members from across Ontario
- Majority of the OBFN membership angles along the TSW and Source Lakes from late June to November of each year.
- Angling is both competitive angling and recreational in nature

Fisheries



The Economics of Bass Tournaments:

- Most tournaments consist of 100 to 200 anglers
- The average tournament angler will spend between \$500 and \$900 in the local community during an average weekend event.
- On average, 30 professional bass tournaments per year are run on the Trent Severn System
- On average, 30 non-professional/club tournaments are run per year on the Trent Severn Waterway.
- This does not include recreational bass fishing.

This is only a drop in the bucket!

Fisheries Management

- Is the economic value of the TSW and Source Lakes fisheries clear?
- If TSW fisheries are a vital natural resource with clear economic value should we not strive to better manage them?
- Should sustainable fisheries be of the utmost importance to all TSW stakeholders?
- What do we need to do if we want to improve the management the fisheries within Trent Severn Waterway and Source Lakes?

Fisheries Management

Fisheries Management options:

- Reduce catch/possession limits
- Impose size restrictions on catch/possession limits
- Reduce length of angling seasons

Why these changes?

- Increases in angling pressure?
- Increases in angling efficiency?

Fisheries Management

Perhaps we should be thinking about the fundamental element through all of this discussion?

Why are many of us in this room tonight?

WATER!

Fisheries Management

Water Management needs to be:

COMPREHENSIVE and **ADAPTABLE**:

Consideration must be given to:

1. Navigation – the TSW needs to manage water levels throughout the system (both on the waterway and source lakes) to maintain safe navigable conditions within the lakes
2. Fisheries – residents, tourists, and all other stakeholders strive for sustainable fisheries on the Trent-Severn Waterway and Source Lakes. For many stakeholders a healthy fishery is the cornerstone of their livelihood.

Fisheries Management

Is a healthy, sustainable fishery important for the stakeholders along the Trent-Severn Waterway and Source Lakes?

YES

A healthy, sustainable fishery is very important to a strong majority of stakeholders who use or reside along the Trent-Severn System and Source Lakes.

Fisheries Management

Is it too late to achieve a healthy, sustainable fishery for the Trent-Severn Waterway and Source Lakes?

NO

Fish populations are dynamic and can be managed within changing conditions (i.e. water use changes, climate change). Stakeholders can work with the Trent-Severn Waterway to develop ecologically sound operational modifications.

Fisheries Management

Can we manage water within the Trent-Severn Waterway and Source Lakes to maintain sustainable fish habitat and fish populations?

YES

Adaptive and Comprehensive water management can help to conserve and/or improve fish populations and fish habitat within the Trent-Severn Waterway and Source Lakes. There are countless stakeholders who would welcome the opportunity to work with the Trent-Severn Waterway in developing water management tools.

Fisheries Management

When can we start managing water with
COMPREHENSIVE and **ADAPTABLE**
methods within the Trent-Severn System
and Source Lakes?

RIGHT NOW!

Thank You!

