

## **FISH COMMUNITY OBJECTIVES FOR LAKE ONTARIO 2013 (short version)**

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**Full document:** <http://www.glfc.org/lakecom/loc/LO-FCO-2013-Final.pdf>

### **LAKE ONTARIO FISH COMMUNITY GOALS AND OBJECTIVES**

The Lake Ontario Committee endorses the following objectives for the three major components of the lake's fish community. We acknowledge that some fish species cannot be categorized as occupying only one ecological zone (i.e. nearshore, offshore), however, we have done so in the interest of simplicity. The objectives are not presented in order of priority.

#### **1.0 NEARSHORE ZONE GOAL**

Protect, restore and sustain the diversity of the nearshore fish community, with an emphasis on self-sustaining native fishes such as Walleye, Yellow Perch, Lake Sturgeon, Smallmouth Bass, Largemouth Bass, sunfish, Northern Pike, Muskellunge, Round Whitefish and American Eel.

#### **Nearshore Objectives:**

- 1.1: **Maintain healthy, diverse fisheries** - maintain, enhance and restore self-sustaining local populations of Walleye, Yellow Perch, Smallmouth Bass, Largemouth Bass, sunfish, Muskellunge, and Northern Pike to provide high quality, diverse, fisheries.
- 1.2. **Restore Lake Sturgeon populations** - increase abundance of naturally produced Lake Sturgeon to levels that would support sustainable fisheries.
- 1.3. **Restore American Eel abundance** - increase abundance (recruitment and escapement) of naturally produced American Eel to levels that would support sustainable fisheries.
- 1.4. **Maintain and restore native fish communities** - maintain and restore native nearshore fish communities, including species that rely on nearshore habitat for part of their life cycle.

## **2.0 OFFSHORE PELAGIC ZONE GOAL**

Maintain the offshore pelagic fish community, that is characterized by a diversity of trout and salmon species including Chinook Salmon, Coho Salmon, Rainbow Trout, Brown Trout, and Atlantic Salmon, in balance with prey fish populations and lower trophic levels.

### **Offshore Pelagic Zone Objectives:**

- 2.1 **Maintain the Chinook Salmon fishery** – maintain Chinook Salmon as the top offshore pelagic predator supporting trophy recreational lake and tributary fisheries through stocking, accounting for natural reproduction.
- 2.2 **Restore Atlantic Salmon populations and fisheries**– restore naturally produced populations to levels supporting sustainable recreational fisheries in the lake and selected tributaries and also provide recreational fisheries where appropriate through stocking.
- 2.3 **Increase prey fish diversity** - maintain and restore a diverse prey fish community that includes Alewife, Lake Cisco, Rainbow Smelt, Emerald Shiner, and Threespine Stickleback.
- 2.4 **Maintain predator/prey balance** - maintain abundance of top predators (stocked and wild) in balance with available prey fish.
- 2.5 **Maintain Rainbow Trout (Steelhead) fisheries** – maintain fisheries through stocking and, where appropriate, enhance naturally produced populations supporting recreational lake and tributary fisheries for Rainbow Trout.
- 2.6 **Maintain Brown Trout and Coho Salmon fisheries** – maintain the recreational lake and tributary fisheries for Brown Trout and Coho Salmon through stocking.

## **3.0 DEEP PELAGIC AND OFFSHORE BENTHIC ZONE GOAL:**

Protect and restore the diversity of the offshore benthic fish community composed of a mix of self-sustaining native species including Lake Trout, Burbot, Lake Whitefish, deepwater ciscoes, Slimy Sculpin, and Deepwater Sculpin.

### **Deep Pelagic and Offshore Benthic Zone Objectives:**

- 3.1 **Restore Lake Trout populations** – restore self-sustaining populations to function as the top deepwater predator that can support sustainable recreational fisheries.
- 3.2 **Increase Lake Whitefish abundance** - increase abundance in northeastern waters and re-establish historic spawning populations in other areas.
- 3.3 **Increase prey fish diversity** – maintain and restore a diverse prey fish community that includes deepwater ciscoes, Slimy Sculpin, and Deepwater Sculpin.
- 3.4 **Control Sea Lamprey** – suppress abundance of Sea Lamprey to levels that will not impede achievement of objectives for Lake Trout and other fish.