April 8, 2020

Lake Michigan Committee Environmental Priorities

As detailed in a *Joint Strategic Plan for Management of Great Lakes Fisheries* (Joint Strategic Plan), degradation of water quality, destruction of physical habitat, and loss of ecosystem components essential to the well-being of fish remain a major cause of impairment to Great Lakes fish communities and fisheries. Strategic procedures identified in the Joint Strategic Plan direct lake committees to identify environmental issues that may impede achievement of their Fish-Community Objectives and to work within governmental initiatives, such as the Great Lakes Water Quality Agreement, that provide opportunities for achieving, refining, and assessing progress toward environmental and fish community objectives.

In 2016, the Council of Lake Committees (CLC) adopted its *Environmental Principles for Sustainable Fisheries in the Great Lakes Basin* to help guide individual lake committees as they identified and prioritized environmental issues that impede achievement of their Fish-Community Objectives. The CLC recognized that diverse functional habitats are required for sustainable fish production; protection and improvement of fish habitat should occur systematically, cumulatively, and collaboratively; fishery value should be accommodated in decisions that affect functional habitats; and manageable sources of anthropogenic stress are pathways for addressing impediments to functional fish habitats.

Using the above strategic guidance, the Lake Michigan Committee (LMC) developed a short-list of high priority environmental impediments and recommended actions that are critical for achievement of the Fish-Community Objectives for Lake Michigan. The Lake Michigan Habitat Task Group conducted a technical inventory and assessment of functional habitats, as they relate to production of fish stocks of common concern, identified impediments to production of fish stocks of common concern that provide broad benefits to fisheries, and recommended actions to address these impediments. The technical inventory and assessment was then prioritized based upon the LMC’s determination of potential fishery benefits, considering several factors, including fish species and population importance, certainty in proposed actions and outcomes and feasibility of implementation. The prioritization process resulted in a short-list of high priority regional and site-specific actions that, if achieved, would move the LMC closer to achievement of its Fish-Community Objectives.

The environmental priorities chosen by the LMC for the next 5-year period should improve the production potential of fish stocks of common concern, including walleye, lake whitefish, lake sturgeon, lake trout, yellow perch, salmonines,
esocids, and centrarchids as these priorities are addressed. The LMC considered priority actions across a broad range of action categories including protection, coastal wetland restoration/reconnection, reef restoration, tributary connectivity/fish passage, shoreline complexity/nearshore vegetated habitat restoration, in-stream habitat restoration, and water quality. The environmental priorities are detailed below.

- **Protection** of high quality in-lake and connected coastal wetlands and nearshore vegetated functional habitats from degradation across Lake Michigan is critical to supporting production of fishes critical to interjurisdictional fisheries, including walleye, lake whitefish, yellow perch, esocids, and centrarchids.
  - Broadly, functional coastal wetlands and nearshore vegetated habitats provide critical spawning and nursery areas for multiple species of common concern across the basin.
  - Specific focal areas for protection strategies include:
    - Big Bay de Noc
    - Little Bay de Noc
  - Protective actions in this focal area will ensure sustainable spawning and nursery habitats for among other species, lake whitefish and walleye which support important recreational, commercial, and tribal fisheries in both Green Bay and northern Lake Michigan.

- **Reef restoration** of degraded reef habitats, which provide critical spawning and nursery areas for multiple species of common concern across Lake Michigan including lake trout, lake whitefish, and cisco.
  - Specific focal areas to implement reef restoration actions in Lake Michigan are in the Charlevoix/ Harbor Springs, Michigan area.
  - Implementation of actions to address aquatic invasive species impacts on physical and biological structure of reefs, spawning habitat augmentation, and reduction of *Cladophora* impacts is critical to restore functional habitat and enhance fish production.

- **Coastal wetland reconnection/restoration, softening of shorelines, and increasing submerged aquatic vegetation**, which provide critical spawning and/or nursery habitats for multiple species of common concern across Lake Michigan, including lake sturgeon, lake whitefish, yellow perch, esocids, and centrarchids.
  - Specific focal areas for coastal wetland reconnection restoration, softening of shorelines, and increasing submerged aquatic vegetation actions should occur at priority locations including:
    - The western shoreline of Green Bay
    - The eastern shoreline of Green Bay
    - The southern basin nearshore of Lake Michigan

- **Tributary connectivity/fish passage restoration** is critical for providing access of adult species of common concern, including lake sturgeon and lake whitefish, to reproductive and nursery habitat across the Lake Michigan Basin.
o Terminal barriers are impacting the ability of the LMC agencies to achieve Fish-Community Objectives and are compromising production of priority species that support recreational and commercial fisheries throughout the basin
o Specific locations where connectivity is limiting production of priority species includes:
  ▪ The Peshtigo River
  ▪ The Oconto River

• In-stream habitat restoration is critical for providing suitable reproductive habitat for multiple species of common concern, particularly lake sturgeon and salmonines.
  o Specific focal areas for in-stream habitat restoration include locations in the Grand River, Michigan, particularly below the Sixth Street Dam.

Adopted by the Lake Michigan Committee on April 8, 2020

Vic Santucci
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