

**The Great Lakes Fish Health Committee:
A Strategy to Help Achieve the Great Lakes Fishery Commission's Strategic Vision**

April 2014

The mission of the Great Lakes Fish Health Committee (GLFHC) is to unify and coordinate fish health management efforts of the agencies signatory to the Joint Strategic Plan for Management of the Great Lakes. The GLFHC carries out these efforts in part through the Model Program for Fish Health Management in the Great Lakes, identifying research needs, providing education, and forming partnerships with agencies and organizations outside of the committee.

The vision of the GLFHC is for Great Lakes fish to be free from epizootic pathogens and transmissible diseases that result from human actions.

The Great Lakes Fish Health Committee shall work to protect and improve the health of fish in the Great Lakes basin. This will be achieved through the five strategies listed below.

1. DEFINING and MEASURING FISH HEALTH

STRATEGY: To define fish health and quality, develop and recommend monitoring techniques, and establish fish health standards by:

- ❖ Promoting the importance of monitoring fish populations for the presence of infection disease agents and encouraging cooperative frameworks across the agencies, as a tool for making management decisions.

Committee's Actions:

- Develop and recommend a framework for monitoring fish health in wild fish populations, including the development and use of fish health index sites and establishment of a standard for an indicator of relative health of a fish community;
- Review processes and format of fish health data collection methodology around the Great Lakes basin and recommend a consistent approach;
- Investigate quality assurance and quality control (QA/QC) programs for fish health monitoring and diagnostic laboratories and ensure consistency with national and international QA/QC initiatives.

2. DISEASE AVOIDANCE, CONTROL AND ERADICATION

STRATEGY: Coordinate fish health management efforts to avoid, control and eradicate serious fish diseases by:

- ❖ Updating the online version of the GLFHC model program as needed to ensure it contains current model policies, procedures and protocols for fish health management and remains applicable to supporting fisheries managers in making rational decisions based on sound fish health management (e.g., disposition of diseased fish).
Including:
 - The GLFHC Risk Assessment tool
 - Recommendations for the safe transfer of eggs and fish into and within the Great Lakes basin.
- ❖ Providing a forum for inter-agency peer review and input to fish health issues including deviations from established guidelines.

Committee's Actions:

- Review and update the online version of the model program annually or as new relevant information becomes available;
- Assign committee members to coordinate with other national and international fish health committees to determine important issues in other jurisdictions and report back to the committee at its annual meeting;
- Request annual reports using a standard format by all member agencies reviewing their implementation of the Model Program over the past year.

3. RESEARCH

STRATEGY: Develop a long-term research strategy for aquatic animal health by:

- ❖ Identifying priority research focus areas including detection, prevention, transmission, treatment, causes, and ecological effects of key and emerging aquatic animal diseases in both the wild and in public hatchery systems;
- ❖ Promoting multi-disciplinary approaches to ecological research which clearly include aquatic animal pathogens and their influence on Great Lakes fish populations as part of all research efforts, where applicable;
- ❖ Developing close working relationships with natural resource, research and other agencies and entities with fisheries responsibilities and interests to ensure aquatic animal health research priorities are included in all Great Lakes research programs;
- ❖ Focus attention on needed research to ensure the timely development of treatment drugs and chemicals to effectively reduce or eliminate key and emerging pathogens in public hatchery systems;
- ❖ Aggregating fish health data basinwide by developing systems and decision support tools to facilitate aquatic resource management efforts and to support intensive and extensive Great Lakes research;

- ❖ Developing long-term funding resources and opportunities for aquatic animal health research and management in the Great Lakes Basin.

Committee's Actions:

- Annually revise existing and develop new GLFHC research priorities that drive aquatic animal health research agendas for the GLFC member agencies and other interested partners;
- Continue to communicate and incorporate refined and updated GLFHC research priorities into the research priorities of all natural resource, research and other agencies and entities with fisheries responsibilities or interest including, but not limited to: the GLFC Board of Technical Experts, Landscape Conservation Cooperatives, Great Lakes Basin Fish Habitat Partnership, USFWS/AFWA Multi-state Grant Program, NOAA, U.S. Department of Agriculture, Great Lakes Fishery Trust, US Forest Service and U.S. Geological Survey (HIGH PRIORITY);
- Develop factually accurate and consistent aquatic animal communication tools and outlets on new research concerning Great Lakes pathogens and their affects on aquatic communities to inform a broad range of audiences from resource agency decision makers to field staffs to the general public (Medium Priority);
- Facilitate research on priority fish health issues to include: the development and implementation of a statistically valid wild fish surveillance system that provides early warnings of new or emerging pathogens; improved understanding of how pathogens affect aquatic communities; new tools and methods to detect and control pathogens in wild fish populations; new treatment drugs and chemicals to reduce or eliminate key or emerging pathogens in public hatchery systems; and focused research on key and emerging fish pathogens to include but not limit to: bacterial kidney disease, Flavobacteria and Aeromonas spp., and viral hemorrhagic septicemia (HIGH PRIORITY);
- Develop and implement a basinwide aquatic animal health data system and associated decision support tools to facilitate fisheries management and fish health research efforts (Medium Priority);
- Develop and implement a strategy to secure long-term funding support and opportunities for aquatic animal health research and management in the Great Lakes Basin (Medium Priority).

4. EXTENSION and EDUCATION EFFORTS

STRATEGY: Increase awareness and understanding of fish health issues by:

- ❖ Providing workshops (e.g., new technology development) for member agencies, members of the lake committees and other GLFC boards and committees, and government and private fish culture personnel;

- ❖ Identifying extension needs and supporting extension services provided to other stakeholders by member agencies (e.g., private aquaculture sector);
- ❖ Preparing publications, scientific information, and other information relative to fish health protection;
- ❖ Providing information exchange on Investigational New Aquaculture Drugs (INAD), chemicals, and therapeutants;
- ❖ Supporting good fish culture practices.

Committee's Actions:

- Assign working groups to organize workshops on a topic chosen by the members to be held in conjunctions with GLFHC committee meetings;
- Meet with the lake committees to communicate the role of the GLFHC, and to identify and resolve fish health protection issues within each lake;
- Periodically review and update the model program;
- Ensure cooperation and coordination on INAD activities;
- Develop publications related to significant fish health issues in the Great Lakes;
- Develop publications related to improved hatchery sanitation and disinfection practices.

5. PARTNERSHIPS

STRATEGY: Work with natural resource agencies and other entities with fisheries responsibilities or interests to develop legislative authority and regulations to enable the eradication of fish pathogens or minimization of their spread, minimizing the rearing and release of infected fish, preventing the release of clinically diseased fish, preventing the importation of fish infected with key or emerging pathogens into the basin, limiting the transfer of fish infected with key pathogens within the Great Lakes basin, and developing response plans as needed and appropriate. Potential partners include, but are not limited to state and Federal agriculture departments, fish health committees from outside the basin, and tribal organizations.

- ❖ Encourage the consistent application of GLFHC policies, procedures and protocols in stocking and commercial aquaculture regulations and practices, First Nation/Native American agreements and local hatchery management practices;
- ❖ Encourage research institutions to consider GLFHC research priorities in developing their programs.

Committee's Actions:

- Review past and current activities to identify further potentials;
- Develop a list of stakeholders/partners;
- Encourage participation of APHIS, Department of Agriculture, and other agencies;
- Create stronger linkage between universities and research institutes/centers;
- Develop shared goals to prevent spread of fish disease;
- Define how the GLFHC provides products or services, how the committee and stakeholders will interact, and stakeholder/partnership involvement.