

HABITAT TASK GROUP EXECUTIVE SUMMARY REPORT MARCH 2023



Introduction - The following provides a brief encapsulation of information presented in the annual report of the Lake Erie Committee (LEC) Habitat Task Group (HTG). The complete report is available from the GLFC's Lake Erie Committee website at <http://glfc.org/lake-erie-committee.php>, or upon request from an LEC, Standing Technical Committee (STC), or HTG representative.

The HTG had two charges in 2022-2023: (1) Maintain a list of functional habitats and impediments for species specified by the LEC Fish Community Objectives (FCOs); (2) Support other task groups by compiling metrics of habitat use by fish. Charge 1 had four supporting sub-components 1a) Identify and evaluate Priority Management Areas, (1b) Identify data needs to better identify and describe functional habitats, (1c) Document key habitat and research projects, (1d) Use GIS techniques to refine PMA mapping.

Charge 1: List of functional habitats and impediments for species specified by the LEC FCOs

Charge 1a: Identify Priority Management Areas (PMAs)

In 2019 the HTG completed the first iteration of the PMA exercise as reported in the 2018/19 HTG report. Through 2021/22 the HTG defined a 4-phase process to better capture the progress to-date and communicate future work needs for updating the PMAs (**Error! Reference source not found.Figure 4**). Additional detail on each phase can be found in the Full 2022/23 HTG report. The HTG has completed Phase 2 along with a prototype viewer for Phase 3 and has begun to develop processes to execute phase 4.

Charge 1b: Identify data needs to better identify and describe functional habitats.

In 2021, during Phase 2 PMA development it became evident that there were numerous data needs required to help detect and describe additional functional habitats. With the completion of Phase 2, these data needs will be compiled and addressed through Phase 4.

Charge 1c: Document key habitat and research projects

The 2022/23 HTG report includes project overviews for 9 different habitat and research projects underway or completed in low to very high PMAs across the Lake Erie basin. In particular, the Gorge Dam removal project that has been initiated includes contaminated sediment remediation among other efforts and is preceded by a habitat suitability index (HSI) project to determine the current amount of available habitat in the Cuyahoga River.

The profiled projects in the 2022/23 task group report includes:

- H.S.I.:
 - o Native species habitat suitability in southern Ontario tributaries (Ontario)

- Lake Sturgeon habitat suitability in the Cuyahoga River (Ohio)
- Identifying and characterizing Lake Whitefish spawning habitat in Lake Erie
- Lake Whitefish recruitment in Lake Erie may depend on spatial transport to high-quality nursery habitat.
- Gorge Dam removal on the Cuyahoga River
- Cedar Point Causeway wetlands project (Sandusky Bay)
- St. Clair-Detroit rivers spawning survey
- Public data on temperature and dissolved oxygen
- Ontario – Rondeau Bay – McLean Coastal Wetland restoration

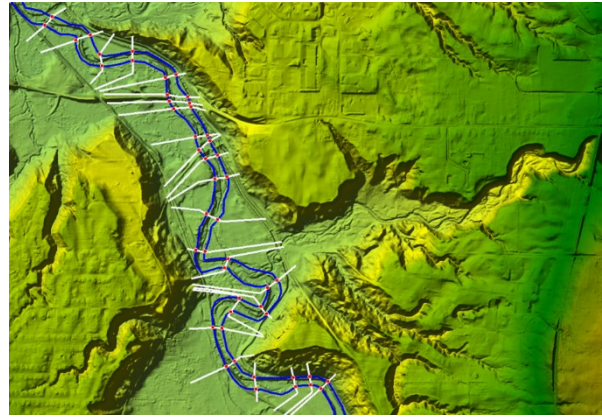


Figure 1: Map of cross-sections (white lines) within the Cuyahoga River floodplain and terrain data (greens to reds show low to high elevations) used to generate a 1-D flow model from Gorge Dam to Lake Erie. The blue polygon outlines the Cuyahoga River banks.

Charge 1d: Use GIS techniques to refine PMA mapping, coordination, and scale.

In 2019, the HTG began collaborating with the Great Lakes Aquatic Habitat Framework (GLAHF) project team to begin transitioning the Phase 1 “flat file” spreadsheet PMA dataset into the Phase 2 spatial dataset with accompanying GIS shape files. Beginning in 2021 and continued through 2022, these efforts were enhanced with funding from GLFC to support GLAHF project proponents and focus efforts to complete Phase 2 and a proof of concept for Phase 3. Most of the effort in 2022 was focused on developing a spatial model to show where reefs may be located in Lake Erie and refining the plume layer. Specific details can be found in the full 2022/23 HTG report.

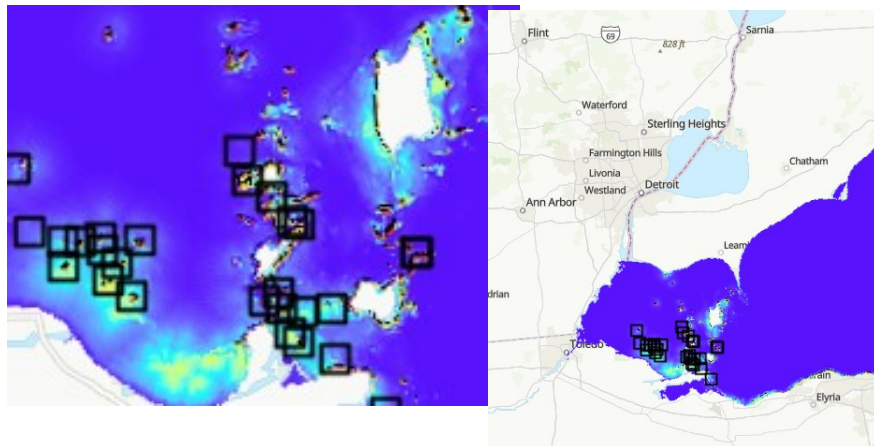


Figure 2: Lake Erie reef modeling output with the input reefs identified by the black squares.

Charge 2: Support other task groups by compiling metrics of habitat use by fish.

There was no new work towards this charge in 2022/23. There are ongoing efforts targeted at this charge which have been captured in prior reports. Throughout next year the HTG will continue to look for opportunities to assist agencies with the use of technologies.

For more information including detailed methodology for identifying PMAs and project summaries, please see the complete HTG report, available from the GLFC’s Lake Erie Committee website at <http://glfc.org/lake-erie-committee.php>, or upon request from an LEC, Standing Technical Committee (STC), or HTG representative.