

Lake Erie Basin

Landscape Context

The Lake Erie basin is situated in the southeastern portion of the Lower Peninsula of Michigan. This area contains all water flows that travel east or southeast into the Lake Erie drainage, including the connecting waterways of the St. Clair and Detroit rivers and Lake St. Clair.

The Lake Erie basin is 5,808 square miles and includes the major watersheds of the Black, Pine, Belle, Clinton, Rouge, Huron and Raisin rivers plus several small coastal watersheds. Land use is primarily agricultural and urban parks (58%), forests (19%) and urban areas (15%). Agriculture is dominant in the southern and northern portions of the basin. Urbanization is clustered between these areas and includes the metropolitan Detroit area and its expanding suburbs. Large urban parks are found along the Huron and Clinton rivers, both in urban areas and on the fringe. Only 5% of the area is currently classified as wetlands.

Priority Threats

Eleven threats to wildlife and landscape features in this basin were identified as significant by participants at a workshop for this region (see Methods chapter in the Introductory Text & Statewide Assessments section for more information). Invasive species (both established species that require control or eradication, and the potential for more species to colonize) was identified as the most severe threat in the basin. This was followed by altered hydrologic regimes and fragmentation. Wetland modifications, riparian modifications and urban, municipal and industrial pollution were also considered highly significant threats. The highly urbanized nature of this region contributes to the altered hydrologic flow regimes common to the basin. The remaining threats considered significant are also primarily a result of rapid urban sprawl in the region. In descending order of importance they are: dredging and channelization, macrophyte removal, thermal changes and altered nutrient inflows.

Solutions to these threats lie in planning and cooperation between local units of government. Understanding natural processes and how they function as opposed to working only within geo-political boundaries is the key to successfully addressing these needs.

Priority Conservation Actions

The following are conservation actions that were repeated most frequently within each landscape feature category and, therefore, should be considered priorities for the basin, because they will have the most widespread benefits for wildlife conservation in this region (no order implied):

Great Lakes

- Continue vigilance and cooperation toward preventing more aquatic invasive species establishments
- Expand the education programs for the general public regarding natural processes, invasive species, hydrologic cycles and stewardship issues
- Limit dredging activities and avoid open water disposal of uncontaminated materials

Inland Lakes

- Control and prevent aquatic invasive species introductions and establishments
- Educate the public on the prevention and control of aquatic invasive species
- Encourage clustered developments rather than evenly spaced home lots
- Expand education programs for the general public regarding natural processes, invasive plants and animals, hydrologic cycles and stewardship issues
- Maintain or establish riparian buffers at least 50 feet wide

MICHIGAN'S WILDLIFE ACTION PLAN
AQUATIC SYSTEMS: LAKE ERIE BASIN

Rivers

- Allow seasonal flooding
- Protect the public trust by requiring dam owners to make appropriate financial provisions for future dam removal
- Rehabilitate rivers and streams to original flow paths
- Remove dams to rehabilitate natural hydrology and habitat connectivity
- Work with road commissions to rehabilitate eroding stream crossings and on siting and maintaining new streams crossings

Wetlands

- Allow seasonal flooding
- Continue working with and educating Drain Commissioners
- Maintain or establish riparian buffers at least 50 feet wide
- Prevent and control introduction and establishment of aquatic invasive species
- Protect and rehabilitate wetlands
- Support land conservancy purchase of undeveloped land
- Work with road commissions to site and maintain road crossings