

Conservation Guidelines for Michigan Lakes and Associated Natural Resources

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Abstract—The Michigan Department of Natural Resources, Fisheries and Wildlife divisions, have developed guidelines for protecting and restoring the natural resources of Michigan lakes. These guidelines follow the department's ecosystem-based approach to natural resource management that combines ecological, social, and economic considerations toward achieving the goal of conserving and sustaining natural resources. The guidelines were developed to support department staff in managing public trust lake resources, and also as reference information for other organizations and individuals interested in Michigan lakes. Background material provided includes descriptions of basic ecological features and processes of lakes, important natural resources including habitat requirements, and lists of aquatic plants, mollusks, crayfish, amphibians, reptiles, birds, and mammals that reside in Michigan lakes. Descriptions of stresses and threats to lake ecology include the cumulative effects of small modifications to habitats, artificial drainage, water quality and pollutants, dams and lake-level control, non-indigenous species, shoreline development, dredging and filling bottomlands, vegetation alteration, swimmer's itch control, and boating and shipping activities. The guidelines recommend a watershed approach for protection and management of ecosystem integrity and natural resources of lakes, with development of comprehensive resource assessments and management plans.

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