



Urban Dynamics: Detroit River Corridor

The Detroit River is part of the Great Lakes-St. Lawrence Seaway. More than half of the commerce between the United States and Canada takes place in its waters. The river is a major source of drinking water for 4 million people. It still harbors important fish and waterfowl habitats, although intensive industrialization and infilling have resulted in the loss of 97% of the original wetlands on the U.S. side of the river, and caused serious degradation to the aquatic habitat.

The Detroit River is one of 42 Areas of Concern in the Great Lakes. Information is needed to meet the goals of a remedial action plan for restoring fish and wildlife habitat. The Detroit River's designation as an American Heritage River increases the need for environmental restoration and mitigation along the river for community revitalization.

This project will provide greater insights into the causes and consequences of urbanization and shoreline alterations on wetlands and other habitat for fish and wildlife along the Detroit River Corridor.

Analysis of land-use change along the Detroit River Corridor focuses on urban growth, especially industrialization, of Detroit, Michigan and Windsor, Ontario. A temporal geographic information system (GIS) capturing urban extent, shoreline development, and the extent of wetlands has been compiled to illustrate change over the past 100 years. Researchers have also compiled land-use and population histories, and conducted quantitative analyses of the patterns, rates, and trends of land-use change. A report documenting the environmental and geographic histories of the area is underway through a cooperative agreement with Eastern Michigan University.

This project is a joint activity between USGS, USGS Great Lakes Science Center, American Heritage River Program, Eastern Michigan University Department of Geography/Geology, Southeast Michigan Council of Governments, Essex Region Conservation Authority, Michigan Department of Natural Resources, US Environmental Protection Agency, and the US Army Corps of Engineers.

Customers include American Heritage River Program, Auto Heritage Program, Detroit 300, City of Detroit, Southeastern Michigan Council of Governments, Detroit River Remedial Action Plan Land Use Committee, City of Trenton, and Grosse Ile Land and Nature Conservancy.

For more information:
<http://edcdgs9.cr.usgs.gov/urban/detroit/intro.html>