Western Lake Erie Coastal Conservation Vision Project
Engaging stakeholders to create a shared regional vision that integrates ecological and social values to provide solutions for people and nature.

Coastal Wetland Restoration

Hectares of Potential Coastal Wetlands
- 0.1 - 2.5
- 2.6 - 4.5
- 4.6 - 6.6
- 6.7 - 8.7
- 8.8 - 10.0

Take Home Points
- Coastal wetlands provide ecological benefit by serving as a natural habitat for a variety of species, and by filtering the drinking water supply for over 11 million people.
- Coastal wetlands benefit the fishing and birdwatching industries, as well as serving as natural buffers against waves, winds and flooding.
- The LEBCS established the goal of a 10% increase in coastal wetlands, from 2011 levels, by 2030.

Related Human Well-being layers: Recreational Fishing, Commercial fishing, eBird, Parks & Recreation, Drinking Water
Coastal wetlands data layer

The Lake Erie Biodiversity Conservation Strategy (LEBCS) established a 2030 goal of increasing coastal wetland area, as measured in 2011, by 10%. The Western Lake Erie Coastal Conservation Vision Project analysis uses this data layer of current and potential coastal wetlands to determine optimal areas for restoration and creation of wetland habitat. This will aid in determining where to increase wetland habitat to achieve the LEBCS goal. The data layer shows present wetlands and potential locations for future wetland habitat along the Western Lake Erie coast from the Detroit River in Michigan to Sandusky, Ohio. The potentially restorable coastal wetlands data layer was created by combining data from four primary sources representing data on existing, former, or potential wetland areas.

Data sources and potential limitations

Data representing areas with varying potential for wetland restoration and creation were obtained from Justin Saarinen at the University of Michigan, Dearborn, and developed as part of Great Lakes Western Lake Erie Basin Restorable Wetlands Assessment. This dataset was developed using a combination of hydroperiod, connectivity, and land use to create an index of wetland restorability. The Restorable Wetlands Assessment data did not exist for the Detroit River or anywhere in Ontario. To create approximately comparable data we compiled additional data for the Detroit River and Ontario and restricted the data to elevations less than 176 meters because elevations above that have very low inundation frequencies. Existing wetlands were compiled from The Great Lakes Coastal Consortium Wetland Inventory (GLCCWI) and select land cover classes (wetland classes, agriculture, and fallow field) from the Michigan Tech Research Institute (MTRI) coastal land cover dataset. In addition, data on historic wetlands of the Detroit River were used as areas for potential wetland restoration after removing present day developed land.

The GLCCWI data can be downloaded as polygons or as centroid point coverage files. Our analysis used the “complete polygon coverage” file, as augmented by the Michigan Natural Features Inventory during the creation of the LEBCS. Products developed with this data should acknowledge the following groups: U.S. Geological Survey Water Resources Discipline, Environment Canada Canadian Wildlife Service-Ontario Region, Michigan Natural Features Inventory, and Ontario Ministry of Natural Resources.

References and links

Historic wetlands of the Detroit River were digitized from a copy of a historic French map of the Detroit River produced by General George Henry Victor Collot in 1798.

Contact
Doug Pearsall
The Nature Conservancy
dpearsall@tnc.org