

Chapter 1 - Introduction

Background

In cooperation with the Michigan Department of Environmental Quality's Coastal Zone program, and coastal communities in the region, the Northeast Michigan Council of Governments has explored the opportunities and approaches available to establish the "Huron Greenways." The Huron Greenways is an organized system of land and water trails and routes linking the coastal portions of Alcona, Alpena, Presque Isle and Cheboygan Counties.

This Huron Greenways study, completed in 2000, included an extensive inventory of potential greenway sites, and suggested greenway routings. Existing public use areas were identified, along with existing trail systems and linkages. Important ecological features present in the greenways system were identified and described. Key recreational features were catalogued as well, along with historical sites, communities, and traveler services. Finally, the report made a number of recommendations on how the greenways system might be put into place, and what resources might be needed to maintain and improve the overall system.

The Huron Greenways web site has been developed and can be viewed at www.hurongreenways.info The site contains information on the main trail system, local trails, recreational sites database, photo tour, detailed tour maps, and travel information. The Huron Greenways Study, that laid the groundwork for subsequent activities such as the Alpena Eco-Plan, can also be viewed on the web site.



The Huron Greenways traverses a part of Michigan rich in ecological resources. Ecological corridors include river systems, wetlands and forests that reach inland connecting coastal areas to interior Michigan. The Lake Huron shoreline forms another ever changing, narrow ecological corridor that can be less than 100 feet wide, but runs for over 1000 miles encircling this Great Lake. The nearshore

terrestrial ecosystems create a sharp transition zone between Lake Huron waters and the inland resources of Northeastern Michigan. Habitats include Great Lakes marshes, low sand dunes, limestone bedrock shorelines, cobble beaches, dune and swale complexes, wet meadows, northern fens, conifer and lowland hardwood swamps, and numerous off shore islands. Plants, such as the *Iris lacustris* (dwarf lake iris), *Tanacetum huronense* (Lake Huron tansy), *Solidago houghtonii* (Houghton's goldenrod), and *Cirsium pitcheri* (Pitchers thistle), are listed as rare and endangered; and found only in the coastal areas of the northern Great Lakes.

The most prominent river system in Alpena County is the Thunder Bay River. The Thunder Bay River empties into Lake Huron at the City of Alpena after flowing through several large impoundments including Lake Winyah and Besser Lake. Bike trails in the City of Alpena follow along the shore of Besser Lake and the Wildlife Sanctuary, offering glimpses of flooded river oxbows and remnant floodplain islands. The Thunder Bay River is a significant regional ecological corridor with headwaters that arise in western Montmorency County near the community of Lewiston. Other branches of the Thunder Bay River extend into Presque Isle, Alcona and Oscoda Counties.

While the overall ecological integrity of the Thunder Bay River system is still very good, the natural terrestrial ecosystems have been fragmented within the City of Alpena. Urban-suburban development over the last 100 years has resulted in the loss of natural habitats. The most extensive fragmentation has occurred at the mouth of the river system. Both residential and commercial development has been occurring around the periphery of the City of Alpena. The rings of urbanizing landscape are replacing natural habitat with shopping centers, roads, subdivisions and parking lots. Use of open space design techniques, conservation easements or fee simple purchase will reduce the loss of important wildlife habitat.

Benefits of Ecological Corridors

Maintaining and improving the ecological web of greenspace and natural areas will have a direct impact on the quality of life in the community. Undeveloped areas can serve as the “lungs” to ventilate adjacent developed areas. The filtering, shading and cooling effects of forests can have positive microclimate and air quality impacts on surrounding areas. A carefully planned network of greenspaces can act as a pollution filter and temperature moderator; keeping silt and nutrients out of streams and preserving fisheries habitat. By bringing nature close to hand, greenways can also perform an important role in environmental education. With easy access to natural resources, the public is much more likely to support resource preservation, and feel that they have an individual stake in maintaining high environmental quality.

“How Greenways Work, A Handbook on Ecology” written by Jonathon Labaree, explains the functions of greenways or ecological corridors. Corridors operate in six basic ways:

- as habitat for wildlife and plants
- as a conduit for plants, animals, water, sediments and chemicals;
- as a barrier preventing movement;
- as a source for animals or seeds which move to other parts of the landscape;
- as a filter allowing some things to pass while inhibiting others; and
- as a sink for trapping sediment, toxins or nutrients.

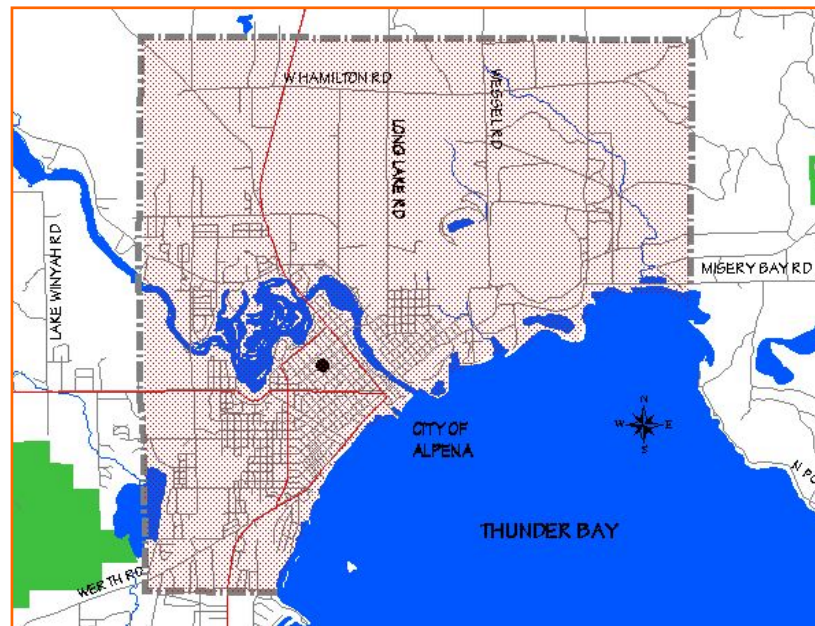
It may not be possible for all segments of a corridor to fulfill all six functions. The plan will identify which functions are most important in different areas. For example, narrow railroad corridors can be enhanced to function as conduits allowing animals to move through the landscape. Corridors bordering the Thunder Bay River and Lake Huron

shoreline should be planned to filter sediments, nutrients and chemicals, along with providing habitat for wildlife. Larger undeveloped areas and wetlands can have a wide range of ecological functions.

Location of Study Area

Alpena County is located in the Northeastern Lower Peninsula of Michigan. The City of Alpena is located in the eastern edge of Alpena County, on Thunder Bay of Lake Huron.

The planning area includes the City of Alpena and portions of Alpena Township around the border of the City. Figure 1.1 shows the Eco-Plan coverage area. The total planning area covers approximately 22 square miles and is 5.5 miles by 5.5 miles. While it is understood the ecological corridors extend beyond the project boundaries, given the project funding amounts and scope, it was decided to focus on the area with the greatest need.



Plan Development

The purpose of the Alpena Eco-Plan is to establish a process to preserve and improve priority ecological corridors. The first step was to develop an accurate representation of the existing conditions. A number of data sets were developed and input into NEMCOG's Geographic Information System (GIS). Existing parks, natural areas, undeveloped areas and vacant land were Identified and mapped. Next, ecological corridors, both in tact and fragmented, were identified and mapped. Ownership information was gathered for the corridors. Next, an on-site inventory of the resources within the corridors was completed.

An Eco-committee was formed to guide the plan development. Committee members and organizations included: Carol Shafto, Alpena City Council; Marie Nadeau, City of Alpena Planning Commission; Ann Glawe, Wildlife Sanctuary Committee; Dave McArthur, Citizen-at-Large; Megan Oemke, Lafarge Corporation; Greg Sundin, City of Alpena Planning Department; Bill Bartow, Alpena County Planning Commission; Marie Twite, Alpena Township; Mary Dunkle, MSU Cooperative Extension; Pam Troy, Alpena County Conservation District and Richard Deuell, Northeast Michigan Council of Governments.

Under the authority of the Municipal Planning Act P. A. 285 of 1931, the Alpena Planning Commission can adopt the Eco-Plan. The plan can be used to guide development and to seek funding for implementing recommendations. An additional intent beyond the context of this project, is to develop an ecological corridor plan that can be used as a model for other communities in the coastal zone area.