

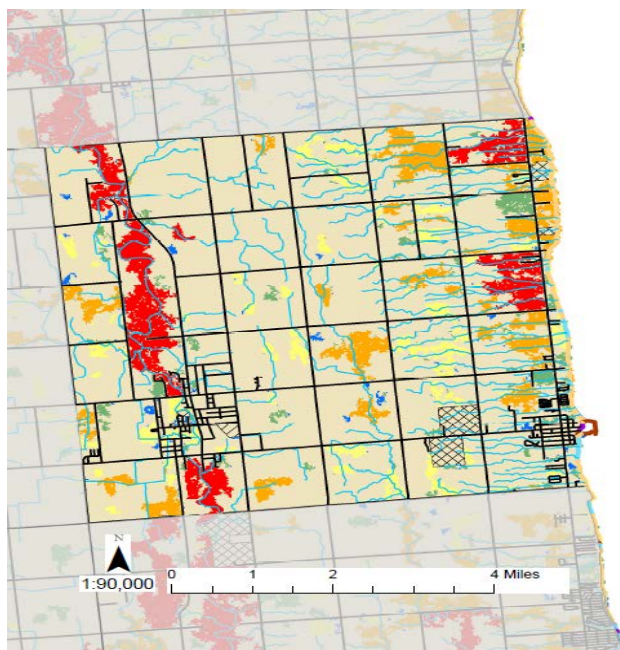
Identifying Natural Areas for Conservation in Michigan's Thumb

HOW THE AREAS WERE EVALUATED Michigan Sea Grant conducted a series of analyses using Geographic Information System (GIS) software and a variety of data including the location, size and shape of wetlands, forests, streams, roads and parks in the region. Undeveloped patches of land in Michigan's Thumb were given an overall score, with 5 being the highest and 1 being the lowest priority for conservation based on the following:

- **Habitat Scores** Each patch of undeveloped land was evaluated based on its ability to provide habitat for five different animal groups: fish, amphibians and reptiles, raptors, waterfowl and shorebirds. For example, undeveloped lands within 0.4 km of Lake Huron provide a stop-over site for migrating landbirds and raptors and, therefore, received a higher habitat score. The five animal-specific scores were averaged creating a composite habitat score for each natural area.
- **Landscape Scores** Twelve different landscape and land cover characteristics were also used to evaluate the undeveloped patches of land. For example, natural areas that were large, adjacent to parks, contained streams and were surrounded by farms rather than pavement received a higher score because the site could provide a range of benefits for recreation, water quality and animals if adequately protected.
- **Overall Conservation Score** The habitat and landscape scores were added together, with each contributing equally to the final conservation scores shown in the maps. Statistical software was used to divide the natural areas into five groups based on their overall conservation score. Natural areas that received a high conservation score are seen as "hotspots" or high priorities for future conservation efforts.

LEXINGTON TOWNSHIP

Lexington has a population of about 3,700 people with the majority of people working in construction and educational services. The township features some recreational areas in close proximity to high-priority land; this protected land could be expanded to include additional land for conservation and recreation. Nearly 32 percent of the undeveloped land in the township is considered high priority for conservation in part because of the large forested and grassland areas and extensive sandy shoreline. As you can see from the map and tables, only 1.7 percent of the land is already protected for conservation and recreation, while 20.8 percent is undeveloped and unprotected.



Conservation Score	Protected Land	Shore Type
5	Conservation	Rock
4	Recreation	Gravel
3	Other	Sand and Gravel
2	Roads	Sand
1	Streams	Wetland/Vegetation banks
		Artificial

Lexington Township Summary

Total land area 23,166 acres

Landuse in township	Area (acres)	Proportion
Developed land	1,808	8%
Farmland	12,738	56%
Grassland	2,929	13%
Forest	4,281	19%
Wetland	1,002	4%
Openwater	9	0%
Total	22,767	100%

Natural areas * 4,824 acres
20.8% of total area

Conservation Score	Area (acres)	Proportion
5	1,526	32%
4	1,630	34%
3	1,120	23%
2	451	9%
1	97	2%

Protected lands 393 acres
1.7% of total area

Shore type	Length (m)	Proportion
Rock	966	8%
Gravel	0	0%
Sand and Gravel	1,805	15%
Sand	8,800	74%
Wetland/Vegetation	0	0%
Artificial	316	3%
Total shore length	11,888	100%

* Land patches smaller than 4 acres were not evaluated.

Figure 2. Map and summary data about Lexington Township, illustrating areas that are important conservation