

Wet prairies consist of land located between marshes and abutting farm land. Their existence is a result of fluctuating water levels and Indian fires, which prevented the establishment of more permanent vegetation, including trees and shrubs. Few of these unique wetlands exist today. Many of these areas have been absorbed into the adjoining agricultural acreage. Wet prairies are recognizable by the striking vegetation that inhabit these areas, such as asters, goldenrods, mints, rare milkweed, Indian plantain and assorted prairie grasses.

Fens are a common herbaceous wetland located in areas characterized by saturated, lime rich soils. Fens are commonly found at the bottom of ridges where poor drainage conditions exist resulting in mulch soils. Like wet prairies, farming has absorbed many of these wetlands.

The remaining category of non-forested wetlands are known as bogs. The most striking feature of a bog is the thick acidic peat mats that cover these areas. These are formed as a result of the decomposition of sphagnum mosses and sedges. Many bogs have been permanently changed as a consequence of peat mining activities, especially those located in the more populated portions of southeast Michigan.

In spite of these differing characteristics, wetlands share some common physical properties that have important consequences for planning purposes. Wetlands serve a number of necessary environmental functions. These include the following:

- Protecting downstream water supplies by providing clean ground water as a result of the nutrient retention and sediment removal. Wetland vegetation traps these sediments and pollutants, thereby preventing them from being deposited in surface water bodies.
- Functioning as effective natural storage basins for flood water. Wetlands may be considered sponges that absorb large quantities of seasonal precipitation, gradually releasing it when the receiving channels are able to accept it.
- Protecting the shoreline from erosion caused by wind and wave action and effectively serving as environmental shock absorbers.
- Providing a habitat for many types of plants and animals that thrive in the type of physical environment created by wetlands. These plants and animals provide an economic and recreational benefit as a result of hunting, fishing and other leisure activities.

Development in or around wetlands are regulated by several State statutes, the most prominent of which is Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994, PA 451, as amended. This Act regulates the development of wetlands if they meet one or more of the following criteria:

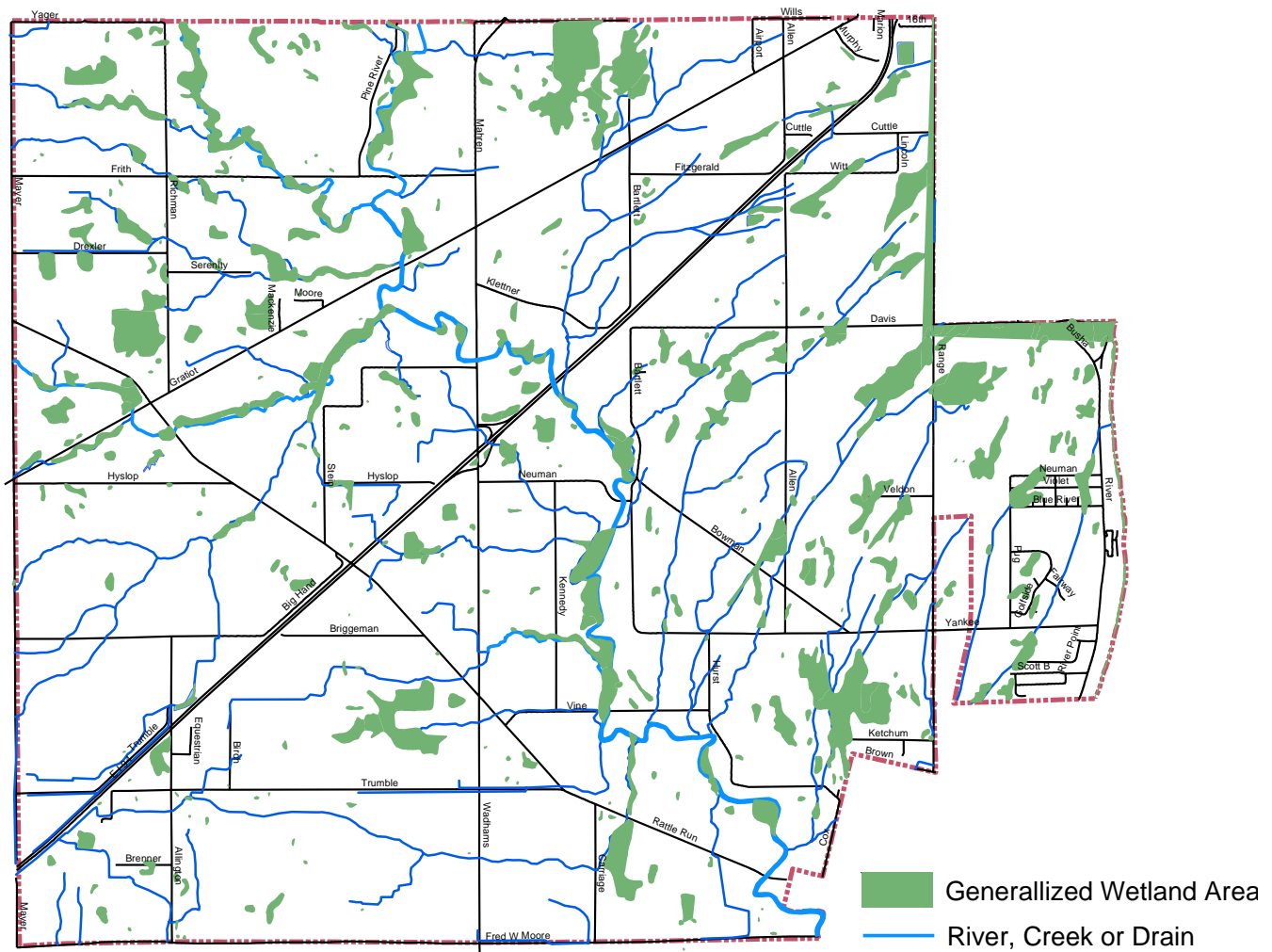
- Are contiguous to the Great Lakes or Lake St. Clair, an inland lake, pond, river or stream.
- Are not contiguous to one of the water features noted above, but are greater than five acres in area and are located in counties with populations exceeding 100,000 persons.
- Are less than five acres, not contiguous to any water feature, and are considered necessary to the preservation of the natural resources of the State from pollution, impairment or destruction.

Permits are required by this legislation for the following activities: 1) depositing or placing fill material in a wetland; 2) dredging or removing soil from a wetland; 3) constructing, operating or maintaining any use or development in a wetland; and 4) draining surface water from a wetland. Specific categories of activities are exempt from the requirements of the Wetland Protection Act.

Other State statutes that have the effect of regulating wetland development include the Inland Lakes and Streams Act, the Floodplains Regulatory Act, the Great Lakes Submerged Lands Act, and the Shoreline Protection and Management Act.

Generalized wetland areas in St. Clair Township are identified on National Wetland Inventory maps prepared by the U.S. Department of the Interior. High altitude aerial photographs were used to identify wetland areas based on vegetation, visible hydrology and geography. On-site field investigations are needed to determine more conclusively the actual characteristics and extent of each identified wetland. The preservation of the Township's natural wetlands is a legitimate concern of local planning. This may be accomplished through cooperation with the DEQ regulations that prevent development of these poorly drained geological areas.

ILLUSTRATION 15
 GENERALIZED WETLANDS



Source: National Wetlands Inventory, St. Clair County Planning Commission

WOODLANDS

At the time southeast Michigan was originally settled, the area was covered with dense hardwood forests. As the number of inhabitants increased, these forests were cleared for lumbering and farming purposes. Today, the quantity of land still occupied by mature vegetation has diminished. Where large contiguous woodlands remain, however, they provide benefits that need to be considered in the planning process.

Woodlands are frequently only considered valuable as a visual amenity enhancing the natural or constructed environment. Trees serve many other useful environmental purposes that should be recognized for planning purposes. These include the following:

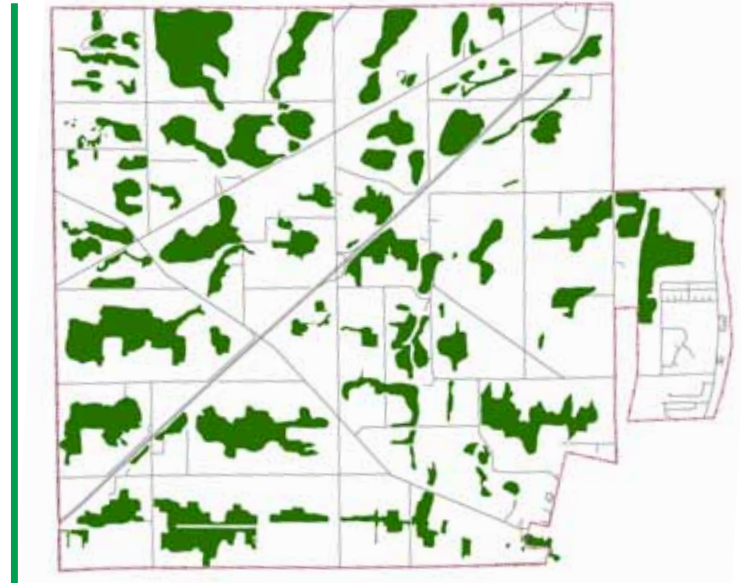
- Slope stabilization and erosion control
- Conserving water quality
- Maintaining a micro-climate
- Filtering pollution from the atmosphere
- Decreasing noise
- Providing a habitat for wildlife

Recognizing these important physical properties and integrating woodlands into future development can improve the community's overall environmental quality and enhance the visual character of the constructed environment. The information provided in the illustration is based on year 2000 aerial photography supplied by the County. Large wooded areas are distributed throughout St. Clair Township, with a large portion of these woodlots located in interior section acreage.

CONCLUSION

As this chapter points out, the physical features of the community are nature's contribution to the Township's environment. For a variety of reasons, different communities have different endowments. Physical features appear to either enhance or limit development. Until recent times, development limitations were considered an adverse circumstance and engineered solutions were often employed to overcome natural limitations. Experience has proven that cooperation with nature, using imagination and creativity, is preferable to removing and/or paving over natural features. Because the Township is only partially developed, it should carefully examine each opportunity to maximize its design in a manner that enhances the community's livability. Planning can best assist in accomplishing this by encouraging designs that respect and work with nature.

ILLUSTRATION 17
GENERALIZED WOODLANDS



Source: CP&M, St. Clair County Planning Commission