

# A Citizen's Guide to Wetlands



What do  
*fens, wet meadows,*  
*swamps, marshes,*  
*vernal pools* and bogs

have in common?

They're all wetlands  
and they all perform vital  
functions that benefit  
people and wildlife.

Wetlands play a crucial role in the ecology of the Clinton River watershed,\* but development pressures throughout southeast Michigan threaten many of these special natural areas.

Protecting existing wetlands, however, is a much easier and less expensive way to protect our water resources and manage stormwater than trying to replace wetland functions through the construction of large structures like retention basins and storm sewers.

\* A watershed is an area of land that drains into a common body of water. The Clinton River watershed covers 760 square miles in southeast Michigan and includes parts of Oakland, Macomb, Lapeer and St. Clair counties.

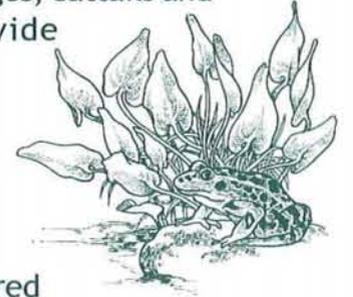
## What is a Wetland?

wet • land n. An area of land that is saturated or flooded with water for at least part of the year, resulting in very wet soils with low oxygen levels. Only unique water-loving plants can grow in this wet, low-oxygen environment.

## Types of Wetlands

Many different terms are used to describe wetlands, but they fall into 3 general categories:

**Marshes** are what most people think of as a wetland. Marshes feature shallow standing water, often near a lake or stream. Plants include rushes, reeds, sedges, cattails and grasses. Marshes provide habitat for many fish, amphibians, birds and mammals.



**Swamps** are forested wetlands dominated by trees and shrubs such as red maple, black ash, elm, poplar, willow and dogwood. They can be located near waterways or in places where groundwater comes close to the surface. Swamps provide habitat for a wide array of wildlife.

**Peatlands** include bogs and fens. Both are characterized by peat deposits, created by the accumulation of dead plant material. Fens are fed by groundwater, while bogs only get water from rainfall and snow. Many plants and animals are uniquely adapted to live in peatlands.

## What can your wetlands do for you?

Wetlands are one of our most valuable natural resources because of the many services they provide for free:

- native plant and wildlife habitat
- stormwater storage and flood control
- water quality protection
- streambank/shoreline erosion protection
- removal of pollutants before they enter waterways
- groundwater recharge
- aesthetic and recreation opportunities

## What's happening to our wetlands?

Development is the number one threat facing wetlands in southeast Michigan. More than 60% of our wetlands have been filled, drained, ditched and built over. With development comes an increase in impervious surfaces, such as pavement and rooftops, which don't allow water to soak into the soil. Without wetlands to help absorb and slow down the increased runoff, polluted stormwater drains directly into our waterways, where it causes erosion and flooding, destroys habitat and decreases water quality.

A lot of time and money is spent cleaning up waterways and building engineered structures to control stormwater. In contrast, protecting and restoring wetlands is easier and less expensive.

## What can you do for your wetlands?

Residents, developers and local government officials can all play a role in protecting and restoring wetlands.

- Preserve existing native vegetation on your property, particularly if you think it may be located in a wetland.
- Don't apply fertilizers or pesticides within 25 feet of wetland areas. Avoid building or planting turfgrass in this "buffer zone".
- Encourage your local elected officials to pass ordinances that supplement the state wetlands law.
- Support community planning efforts that protect wetlands and other natural areas.
- Encourage your state legislators and local officials to promote policies that encourage sustainable stormwater management, curb urban sprawl, and protect wetlands and other natural features.



For more information about protecting and restoring wetlands, contact:

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## Wetlands of the Clinton River Watershed

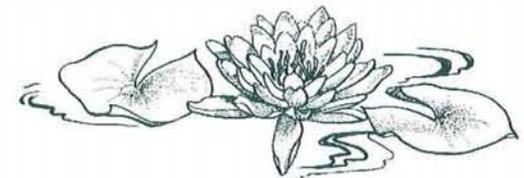
In the early 19th century, 25% of the land areas in Macomb County and 20% of Oakland County land areas were wetlands. Since that time, Macomb County has lost approximately 75% of its wetlands and Oakland County has lost nearly 50% of its wetlands. However, thousands of acres of vital wetlands still remain in the Clinton River Watershed.

Small wetlands (less than 5 acres, which are not protected by state law) often serve as many vital functions as larger wetlands.

The Clinton River Watershed Council is working with local governments across the watershed to incorporate wetlands protection into their development and stormwater management plans.

Many of the wetland areas in the watershed are being identified by county agencies and municipalities as priority areas for protection, restoration and preservation.

For more information on how communities are taking steps to protect and restore wetlands and other natural features, contact the Council or visit our website at [www.clintonriver.org](http://www.clintonriver.org).



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