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So, You Have A Wetland In Your Neighborhood...

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What Are Wetlands?

Wetlands are natural areas that are in between deep open water and dry land. Sometimes it is easy to see the water in a wetland. Other times the wetness lies just below the surface of the soil, where the plant roots grow. Wetlands have many different appearances, plant mixtures, and locations. They can be shallow open water with underwater and edge plants, support the growth of trees or shrubs, look like a meadow, occur on a slope, surround a larger lake or stream—or be several of these things. There are many names for different kinds of wetlands, including marsh, bog, bottomland, fen, wet prairie, or slough.

Why Are Wetlands Important to People?

Wetlands play a major role in natural functions that have value to humans. These include:

• Cleaning up polluted water before it reaches lakes, streams, or ground water.

• Slowing and storing flood waters, reducing damage to crops and buildings.

• Providing habitat for fish, birds, amphibians, reptiles, insects, and mammals during part or all of their life cycles.

• Protecting and anchoring shorelines from erosion.

• Providing areas for nature study and recreation.

• In some settings, recharging ground water supplies.

About half of the original wetlands in the United States were lost to agricultural drainage, urbanization, and other human activities before we realized just how important they are in our landscape. In Midwest farm belt States, these losses can run close to 90 percent. So it is especially important to be careful with the wetlands that remain to preserve their values to us and future generations.

Development with Nature and Wetlands

We have a growing awareness and appreciation of the value of natural areas to society, such as wetlands, and recognize the often times high engineering costs of not building in harmony with nature. These factors have led to the enactment of environmental laws and local land use ordinances which protect natural resources and the the public interest by discouraging the use of sensitive natural areas for new development. Part of the parks and open space in your neighborhood, for example, may be wetlands. Setting these wetlands aside as open space leads to less flooding and to reduced costs for maintaining roads located over areas of unstable wetland soil. If your house is located near a wetland, consider yourself lucky—you are living next to a botanical garden, a wildlife refuge, and a water storage area.

Is It Really A Wetland?

There are several clues to whether a site is considered to be a wetland. Here are some indicators of whether an area is a wetland:

• A first clue comes from observing water—what makes a wetland wet. Is the site wet or soggy for several weeks or more of the year?

• A second clue is the prevalence of wetland plants growing there—species which can tolerate wet conditions.

• A third clue comes from examining the soils. Soils formed under wet conditions can have a distinctive appearance, such as being very dark and full of partially-decomposed plants in the upper inches or very light grey, perhaps with rusty orange spots.

NOTE: Although you can get a general idea of the presence of a wetland from these factors, determining the legal extent of a wetland for Federal regulation requires a formal delineation of

these factors on the site by a trained wetland specialist.

Another clue for the presence of a wetland can come from the National Wetland Inventory maps, produced by the U.S. Fish and Wildlife Service. These indicate open water and likely wetland areas. To obtain these maps, call (800) USA-MAPS or consult http://www.nwi.fws.gov (EXITING EPA). The Wisconsin Department of Natural Resources publishes a special set of Wisconsin Wetland Inventory maps, organized by township, which are used for local zoning purposes. You can purchase these maps by calling (608) 266-8852.

Many neighborhoods have stormwater holding basins. If these are normally dry, these are not likely to be considered to be a wetland.

Finding Out the Legal Facts and Responsibilities For Your Neighborhood Wetland

Due to their importance to water quality and other environmental benefits, wetlands have been protected under the Federal Clean Water Act since the 1970's. They are often protected under State laws or local rules and zoning ordinances.

In overview, before filling or draining a wetland or other waters, a permit must be obtained under Section 404 of the Clean Water Act, administered by the Army Corps of Engineers and the U.S. Environmental Protection Agency (or the State of Michigan), with assistance from the Natural Resources Conservation Service on farm land. Getting this 404 "Corps Permit" involves:

- an on-site delineation, by a trained person, of the legal boundaries of the wetland; and

- careful planning for avoiding the wetlands whenever possible; and as a last resort,

- planning to fill only the minimum amount of wetland necessary for the project.

Many permitted projects are modified from what was originally proposed, in order to reduce wetlands impacts. As part of the permit, nearby former wetlands may be required to be restored to offset the loss of the wetland fill. This process is called compensatory mitigation. It tries to keep the natural functions and values provided by wetlands in the neighborhood of the wetland lost to filling. Some permits are denied due to their adverse environmental effects.

Because of development standards and permit requirements, recently developed subdivision areas and larger properties are more likely to include wetlands. The wetlands may have specific legal requirements attached to them as a condition of any permits secured to build the roads, houses, and other structures. It is important to find out the following facts and responsibilities involved for each specific situation:

• Who owns the wetland area? Check for this on your property deed and easements; also check any covenant for a property owners' association or park district.

• Are there any Federal, State or local permits involved? If there is more than one permit, are they consolidated or do they have differing requirements?

• To whom were any permit(s) issued?

• Who, if anyone, is responsible for the maintenance and preservation of the wetland or the success of a restored wetland—the developer/permit holder/park district/property owners association/landowner?

• If the wetland is a restored wetland, is there a monitoring and maintenance plan in effect? Check with office(s) that issued permit(s), such as the Corps of Engineers or the State water agency.

How does this affect me and my community?

• Check for any specific deed or easement restrictions on your property.

• Do I have the legal obligation to uphold the requirements of a specific wetland permit?

• State or Local regulation may prohibit specific activities such as cutting vegetation, excavating or filling, dumping trash or yard clippings, using chemicals, adding certain kinds of plants or changing water levels. Does this apply?

• For any parks or common spaces am I individually, or through a property owner's association or special district, specifically responsible for the care and stewardship of the wetland area? How are the expenses associated with this paid for? How can we work together as a community to do a good job for our own and our neighborhood's environment?

NOTE: In general, to avoid unintentional damage or legal complications, do research before

taking actions, either individually or as a community. Build into your plans the time that it takes to find out the specific facts and solutions for your situation.

Some Landowner Concerns About Wetlands

People living near wetlands sometimes have concerns about wetlands, especially if they are accustomed to a more urban lifestyle. Wetlands may have a different look or increase our wildlife interactions.

Appearance

To some, wetlands appear messy; others enjoy learning about new plants or wildlife and find wetlands intriguing. While not a traditional lawn or flower garden, wetlands plants can provide beautiful flowers, interesting foliage and frequently attract a great variety of songbirds and other wildlife. See the landscaping section for more ideas on your wetland view.

Safety

Wetlands are great observation and exploration areas. Children need to be taught to respect deep water and soft soil. Pets should be restricted to the landscaped portion of your yard to reduce wildlife interactions. Drivers need to be careful to avoid wildlife accidents near wetlands, especially at nighttime. Recreational activities that can disturb and destroy wetlands and their habitat also need to be avoided.

Nuisance Wildlife

Geese. In some of our urban areas, large flocks of Canada geese occupy landscape stormwater ponds and other water bodies, sometimes creating nuisance conditions. Geese eat grass shoots and rely on a good line of sight for their protection—which generally means a pond in the middle of a mowed lawn is goose heaven. Wide bands of tall (above goose eye level) plants around a wetland or lake make it harder for geese to see and less attractive for them to settle.

Beaver. If beaver flooding is a problem, it is possible to install devices called Clemson levelers or beaver foolers to reduce the amount of flooding behind a beaver dam—and still maintain a pool for their use. You can inquire at your nearby State natural resources office for information on this approach or beaver relocation rules.

Mosquitoes. Mosquitoes reproduce in trapped, still waters, such as containers, poorly draining rain gutters, or discarded tires, without much risk of being eaten. In wetlands, there is greater potential for natural predators—birds, fish, dragonflies, amphibians, and bats—to control mosquitoes. Since purple martins and bats consume large numbers of mosquitoes, building

houses for them can be a helpful way to control mosquitoes near our homes.

Plants That Can Take Over A Wetland

Some plants that are extremely invasive can take over a wetland, excluding a variety of other plants and wildlife. If you want to take some action to control or manage these species, call your State natural resources agency for advice or assistance.

Purple Loosestrife. Purple loosestrife (*Lythrum salicaria*) is a tall plant with spikes of purple flowers blooming in mid to late summer. It has few natural predators, produces thousands of seeds, and will take over a wetland, pushing out other plants with value for wildlife. This can be avoided by carefully weeding out small areas and discarding the plants well outside of the wetland. In many States it is illegal to sell or plant purple loosestrife. Progress is being made with control by certain beetles, brought from the plant's native Europe.

Cattails. Sometimes cattails (*Typha*) can crowd out their plant competition. Although they can be managed by controlled burning or by cutting off the flowering heads (the brown tails), the plants's thick roots are a favorite food of muskrats, whose dining can open an area in deeper water.

Reed Canary Grass. This is a tall, dense-growing, coarse grass (*Phalaris arundinacea*) that is common in disturbed areas. It has limited wildlife value. Sometimes it is controlled by burning, digging, or the use of carefully selected herbicides, followed by replanting other wetland species.

What Are Some Ideas For Landscaping Next to Wetlands?

Being a good neighbor to your wetland involves careful landscape planning and maintenance. This can be done to enhance your yard and the wetland.

Focus On A Wetland Vista and Enjoy It

A great view of a wetland can be a pleasure to enjoy. If you want to enhance the view by cutting an open space, keep it as limited as possible to preserve natural values. There may be State or local regulation on cutting and removing vegetation, especially if your wetland is also a shoreline of a pond, lake, or stream. If conditions are suitable, consider adding special nesting boxes for wood ducks.

Focus On Your Yard And Home

If you would rather emphasize the area close to your home, consider having a visual focus in your yard in front of the wetland area. There are lots of possibilities such as an ornamental split rail fence with a flower bed in front, a garden bench, bird bath, or special plantings. If the wetland is unsightly to you, screen that view with native shrubs.

The Importance of Keeping A Buffer Between Lawns, Wetlands, Lakes and Streams

No matter where your visual focus is, thoughtful landscaping can contribute to protecting nearby water bodies from unintended impacts from your lawn and garden. A wide band of native plants can act as a catching area for pollutants as they run off a lawn or pavement. Lawn grasses have a very short root system. Native grasses and plants often have deeper roots that can better hold soil and shorelines in place as well as increase water infiltration back into the ground.

Practice other clean water habits to enhance nearby wetlands and other water bodies. This can include planning site drainage to soak into the soil rather than rapidly run off. You should compost any yard leaves and grass clippings rather than discarding them in a wetland. This can be done in your yard or sometimes through a community program. If you live in an unsewered area, maintain the effectiveness of your septic tank by having it pumped out every 3 to 5 years so it does not contaminate nearby water bodies.

Adding Native Plants and Reducing Areas of Lawn Grass

About 5 percent of air pollution comes from gasoline-powered lawn care equipment. Lawn care chemicals (fertilizer, plant , and insect killers) are often applied at higher concentration to lawns than farmers use in farm fields. Lawn watering can be a major consumer of drinking water supplies. The shallow root systems of lawn grasses are not always adequate to control soil erosion and can't withstand dry periods well. For these reasons, there are clean air and water benefits to reducing the amount of lawn grass areas. When established, native plantings need minimal watering, mowing, fertilizing, and pest control. An added plus is reducing some of the routine lawn care chores for busy households. More people are becoming interested in planting native landscapes in their yards for environmental benefits and reduced upkeep. If you are interested, first study up and start out in a small area to learn what works well for your yard. Native seeds and plants are available from specialty sources and need to be suitable for your area. Region 5 has a series of reports for learning more about the advantages of native landscaping and some ideas for getting started (See the next section).

Some gardeners add native wetland plants to make a more diverse or attractive wetland, if it is not a mitigation site or has other limitations. The plants are available from specialty wildflower nurseries. Popular plants for most sites include giant bur-reed (*Sparganium eurycarpum*),

arrowhead (*Sagittaria latifolia*), native blue flag iris (*Iris versicolor, I. virginica*) and marsh marigold (*Caltha palustris*). Slightly drier-type wetlands can support other attractive native plants, such as New England aster (*Aster novae-angliae*) Joe pye weed (*Eupatorium maculatum*), blazing star (*Liatris*), and Ohio goldenrod (*Solidago ohioensis*). Several popular ornamental shrubs, including red-osier dogwood (*Cornus stolonifera*) and potentialla (*Potentialla fruiscosa/P. floribunda*) are wetland plants.

These are just some starting suggestions. If planning a water garden or bog garden, be sure that its location is not already a valuable wetland.

Getting More Information and Technical Assistance

EPA can help you to get help on wetlands questions:

Call the EPA Wetlands Information Hotline at 800/832-7828 (weekdays, during business hours) for free publications, information on wetland regulation and referrals to Federal and State agencies. The Wetlands Information Hotline can also help you locate sources for wetlands information in your State. For example, landowner handbooks for wetlands are available for Michigan, Ohio and some other States.

Online information about wetlands can be found at EPA's website at: www.epa.gov/OWOW. This also has links to many other sites about wetlands.

There are illustrated plant identification books available for Midwestern wetlands for a modest charge. *Wetland Plants and Plant Communities of Minnesota and Wisconsin*, now in its second edition, is published by the St. Paul District of the Corps of Engineers. An earlier publication, *A Field Guide to the Wetlands of Illinois*, was issued by the Illinois Department of Conservation, (now the Illinois Department of Natural Resources.) The Wetlands Hotline can help direct you to these agencies, or check for the books at nature center book shops in those States.

EPA Region 5 has publications, including "Tips for Wetland Protection" and "Protecting Wetlands from Purple Loosestrife," a children's coloring poster "Welcome to the Wetlands" (also coming out in Spanish) as well as a series of fact sheets on landscaping with native plants and its environmental benefits. Within the six-state Region, call (800) 621-8431 during business hours for these and other free environmental publications.

Thanks to You…

… for taking the time to read this fact sheet and for taking the steps toward understanding

wetlands. We hope it has given you some ideas for living in harmony with nature in your neighborhood. Please share them with your neighbors for a wetland-friendly neighborhood.

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