

Stormwater Ponds

Frequently Asked Questions

What is Non-Point Pollution?

Urban and rural nonpoint pollution is the leading cause of water quality problems in Wisconsin (according to the Wisconsin Department of Natural Resources).

Non-point pollution is water pollution that originates from everyday practices found in urban, rural, and agricultural areas, such as washing your car on the driveway or blowing your grass clippings onto the street or sidewalk. These practices result in debris or pollutants that are carried away by rainwater and storm events.

Why Stormwater Detention Ponds?

As more houses, driveways, parking lots, and streets have been constructed, the amount of land available for rainwater to soak in has decreased. Instead, that water runs off rooftops and paved surfaces flowing over the ground surface, picking up debris, chemicals, dirt, and other pollutants on its way. Stormwater runoff then takes these pollutants along as it flows directly into the same waterbodies we use for swimming, fishing, and providing drinking water. Stormwater detention ponds are strategically placed to capture this runoff before it enters our waterways. They also provide water quality improvements to help offset these detrimental effects.

What is a Stormwater Detention Pond?

Stormwater detention ponds are used to control non-point pollution in stormwater runoff. The ponds trap pollutants such as sediment, phosphorous, lead, and zinc. They do this by detaining stormwater long enough for the sediment to settle out of the water. As the sediment settles, many pollutants that attach to it settle to the bottom of the pond. In addition to trapping pollutants, ponds can reduce flooding and provide attractive open space. The ponds are generally about 5 to 6 feet deep and have several sections – a forebay to collect large particles and the main pond. Both the forebay and the main pond are cleaned out periodically as they accumulate sediment and other pollutants.

Why are we seeing more ponds?

Stormwater runoff directly impacts the waters that we all enjoy. For that reason, controlling polluted runoff and protecting these waters has been regulated throughout the years, beginning with the Clean Water Act of 1972. The Environmental Protection Agency has delegated the duties of controlling stormwater from urban and rural land uses to the Wisconsin Department of Natural Resources. In turn, the WDNR works with regional and local communities to control stormwater and its impacts. Detention ponds are one component that helps a community control both stormwater quality and quantity which helps reduce flooding.

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What about safety?

Safety is always a primary concern, however, a properly designed detention pond should be no more hazardous than an urban lake, a playground, a hiking trail, or any other recreational or park facility in a community. It definitely is a safer facility than a city street, yet no one fences off streets.

Probably the most reliable safety feature to protect the public against accidentally falling into a pond is to install gentle side slopes for all the banks and the embankment. The state DNR engineering standard requires pond side slopes of 4 to 1 (4 units horizontally for each 1 unit vertically) or flatter. A safety shelf 8 feet wide is also required at or just below the pool surface. These measures act together to provide safe borders for the ponds.

What about fencing?

Surrounding stormwater ponds with fences may provide an additional safeguard, but fences are not a cure-all. While they may discourage toddlers, fences will not keep older children out. Furthermore, they may hamper rescue efforts, collect debris, interfere with mowing and maintenance, and detract from the area's overall appearance as open space. (*Wisconsin Priority Watershed Program*)

What about mosquitoes?

According to the Environmental Protection Agency: "Properly designed, operated, and maintained ponds are not conducive to standing water and as such should not be fertile breeding grounds for mosquitoes. " Stormwater ponds are required to be designed to have a permanent pool at least 5 feet deep, this reduces the shallow areas where mosquitoes breed. The variety of mosquito which carries the West Nile disease prefers the small stagnant pools available from old tires, small depressions and unused pails and other debris to the open, deeper pools provided by property designed stormwater ponds.

What about algae?

Proper pond design and maintenance are the best tools to avoid excessive algae. A deeper pond depth away from the edges of the pond decreases vegetation growth potential. Pond design, coupled with occasional harvesting of the vegetative growth at the bottom of the pond, is an effective measure in reducing algae. The reduction of fertilizer use, specifically phosphorus, will also help reduce algae.

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Will the pond decrease my property values?

Many residents are concerned that the location of detention ponds near their property or in their neighborhood will decrease their property values. However, many studies show the opposite to be true. In fact, a study conducted by the National Association of Home Builders found that "whether a beach, pond, or stream, the proximity to water raises the value of a home by up to 28 percent." Additionally, a 1991 American Housing Survey conducted by the Department of Housing and Urban Development and the Department of Commerce found "when all else is equal, the price of a home located within 300 feet from a body of water increases by up to 27.8 percent." (*EPA*)

What can you do?

Some of your everyday actions could be contributing to non-point source pollution. Amending your current behaviors and adopting the following actions will assist in protecting our waterways:

- never dump anything down storm drains;
- sweep off driveways, sidewalks, and roads onto grass;
- avoid pesticides;
- learn about Integrated Pest Management (IPM);
- direct downspouts away from paved surfaces;
- take your car to the car wash instead of washing it in the driveway;
- check you car for leaks;
- recycle motor oil;
- pick up after your pet

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