

LIVING NEAR A STORM WATER POND

The purpose of stormwater ponds is to collect, store, and purify stormwater runoff. They are built to improve water quality and prevent downstream flooding.

Construction of commercial and residential developments greatly increases areas of impervious surface. Water from pavement, sidewalks, roofs, parking lots, patios and hard-scapes can't infiltrate into the ground, so it runs off in increasing amounts at increased velocity.

These factors cause soil erosion and resulting sedimentation of downstream water bodies.

Contaminants from construction, polluted runoff from streets and driveways, lawn chemicals and other unwanted materials are carried in stormwater. Deteriorating water quality in streams and lakes results.

Stormwater ponds intercept runoff, allow sediments and contaminants to settle out, and decrease velocity to protect water quality, [municipal infrastructure and private property.

COMPONENTS OF A STORMWATER POND

Stormwater ponds are built with a **forebay** to catch and settle out the greatest amount of sediment. Water leaving the forebay enters the larger **storage area** (micropool in diagram). An **outlet structure** and **outfall area** permit water to leave the pond in a controlled flow. Shallow areas near the shore – the **safety benches** and **aquatic benches** – create places for plants to grow and provide a margin of safety for people and pets.

The forebay usually needs to be cleaned periodically to retain capacity as sediments settle out of stormwater flows. Access to the pond will be necessary.

COMMON MANAGEMENT CONCERNS AND QUESTIONS

Cattails: Cattails and other emergent plants are good for the stormwater pond. They stabilize shorelines, filter sediments, take up nutrients and provide habitat for desirable wildlife. Cattail stems host colonies of micro-organisms that clean contaminants from the water. Cattails will not spread over upland lawns, they grow where roots stay wet.

Geese: Allowing cattails to grow on the aquatic benches will keep geese from entering adjacent lawns. Geese relish eating freshly mowed grass, but avoid walking through tall plants where they can't see predators approaching.

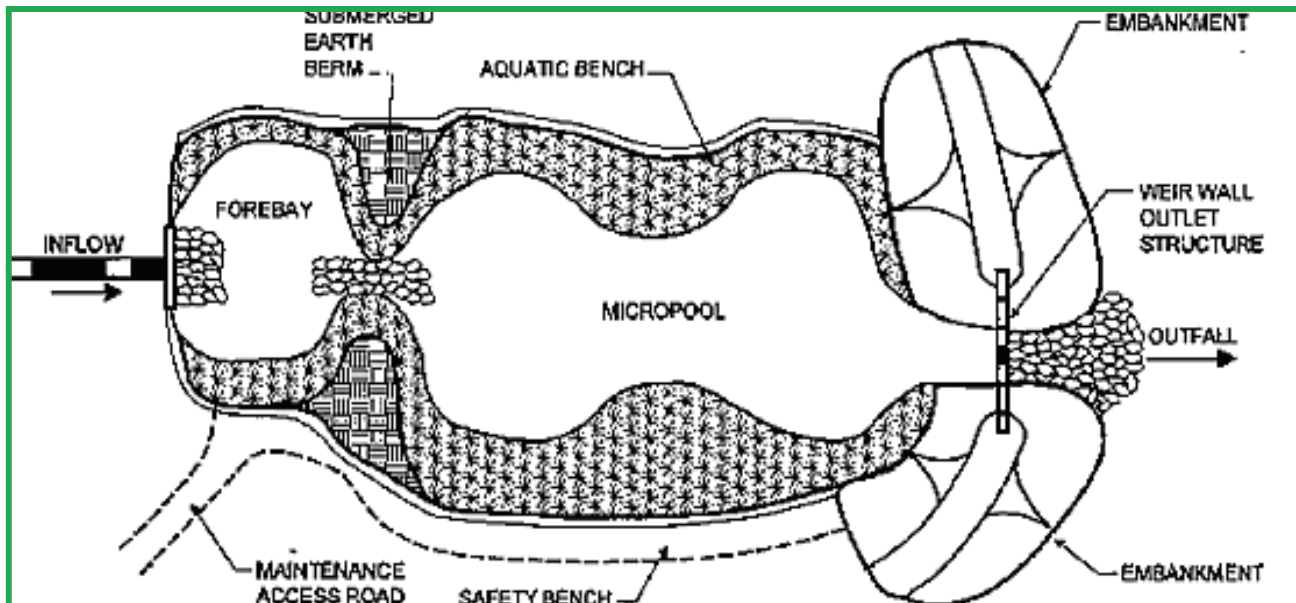
Mosquitoes: Mosquitoes breed in stagnant water. Properly designed and maintained stormwater ponds minimize stagnant water. Frogs, toads and birds that live in the cover provided by cattails and other plants help control insects. Mosquitoes are more likely to breed in old tires, clogged roof gutters and other stagnant water sources.

Algae Blooms: Use phosphorus-free lawn fertilizers. Leave a buffer of unfertilized lawn around the pond. Keep grass clippings and pet droppings out of the pond. Use a NYSDEC approved dye (Aquashadow®) or barley straw to reduce algae growth. Wash vehicles on the lawn, not the driveway, to prevent soap from entering the pond.

Erosion and Siltation: Plant shrubs and grasses near the water's edge. Watch for invasive plants such as purple loosestrife and remove it before it becomes established. Watch for muskrat and beaver activity that might undermine the dam. Contact DEC for control methods.

MAXIMIZE THE PLEASURE OF THE POND

Stormwater ponds can be a beautiful as well as useful part of the community landscape. Native plants that require no fertilizer or pesticide will do well in a pond area. Button bush, elderberry, witch hazel, New England Aster, bee balm, Joe Pye and other native shrubs and forbs will entice birds and butterflies to the pond. Little care is needed after these plants are established as they are adapted to native soils and climate. Bluebird and purple martin houses will add to the richness of the setting.





Stormwater ponds, while providing storm-water management and protection of water quality downstream, also create vistas and recreational opportunities.

Stormwater ponds are focal points of many communities, often equipped with fountains and walking trails. Opportunities for bird-watching and wildlife viewing encourage residents to enjoy life in nature.

Care of the stormwater pond should include both understanding benefits to the neighborhood and the responsibility to protect the pond from contamination.

Fertilizer, lawn clippings, litter and debris entering the stormwater pond damage its function and impair its beauty.



Ontario-Wayne Stormwater Coalition Members

Town of Victor
Town of Farmington
Town of Macedon
Town of Ontario
Town of Walworth
Village of Victor

Wayne County Highway Department
Ontario County Highway Department
Ontario County Soil and Water
Conservation District
Wayne County Soil and Water
Conservation District



<http://www.owsc.org>

For more information, contact:

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Living Near a Stormwater Pond



***Helping Municipalities
Comply With
Stormwater
Regulations
and
Keeping Water Clean***