



Stormwater Management Ponds (SWMPs)

Engineering Services

Why do we need SWMPs?

In a natural landscape, the water from rainfall or snowmelt will soak into the soil, be absorbed by trees and other plants, evaporate into the air, or travel over land to receiving streams, lakes, rivers or wetlands. In developed areas where driveways, buildings and roads cover the soil, water cannot be absorbed and instead travels over these paved surfaces as runoff, reaching our waterways much more quickly. As it flows over these surfaces, the runoff also collects various pollutants (dirt, fertilizer containing phosphorous and nitrogen) and debris (grass clippings, paper, cigarette butts, etc.).

Stormwater management ponds (SWMPs) are facilities designed to collect runoff from the local storm sewer system following either a rainfall or snowmelt event, or activities such as watering lawns and washing cars. SWMPs are built to temporarily hold this water, provide treatment to remove the pollutants, and then slowly release it back to our waterways.

How do SWMPs help?

SWMPs control the flow of water. Without these ponds, large amounts of water would enter a stream all at once, causing flooding and eroding soil from the stream banks. SWMPs have at least one inlet that allows water to flow from the storm sewer system into the pond. The pond's outlet conveys water from the pond into a nearby creek system at a controlled rate.

SWMPs improve water quality. The permanent pool of water within the pond allows sediment to settle before water enters the stream. In addition, the buffer areas around the SWMP are usually landscaped with dense natural vegetation/grasses. This vegetation also improves the water quality by helping to filter the sediment.

Who maintains the SWMPs?

The Town carries out the maintenance once the pond has been assumed through the development process.

Routine maintenance includes removal of debris in and around the pond, removal of invasive vegetation, and maintenance of structures (i.e. gates, locks, valves, etc.). The vegetation planted around the pond is dense and appropriate for the area. Aggressive weed control operations, including the use of pesticides, are not required. Grass cutting is not recommended for the ponds in order to maintain a natural environment.

Non-routine maintenance includes bank stabilization, structure repairs, and removal of excess sediment. A clean-out of the SWMP will be required once every 10-20 years to remove accumulated sediment to ensure the pond continues to function as intended. Drainage of the SWMP will be required to facilitate the clean-out. Part of this clean-out involves soil sampling and testing to ensure proper disposal of the sediment remove

Safety Issues

SWMPs are not designed or intended for water/aquatic recreational use. For the health and safety of the public, several activities are prohibited including, but not limited to, swimming or wading, skating, boating, and fishing. Safety/warning signs have been strategically placed at each of our facilities to inform the public of prohibited activities. These signs also indicate the potential for rapid water level fluctuations in the pond. For the protection of the SWMP, several activities are prohibited to control the intrusion of wildlife and foreign matter including fish stocking, unauthorized vegetation planting/removal, and material dumping.

What about the presence of West Nile Virus at SWMPs?

SWMPs are not typically considered good mosquito breeding sites since the water level is continuously changing and exposure to wind is high.

What can you do to help the function of a SWMP?

- Dispose of trash properly to avoid accumulation of trash in and around the pond
- Dispose of grass clippings or leaves properly to avoid accumulation in and around the pond
- Minimize the use of fertilizer
- Avoid disturbing vegetated areas around the pool to minimize sediment laden runoff from entering the pond
- Avoid introducing swimming pool discharges or allowing toxic substances (oil, antifreeze, etc.) to runoff into the pond or storm sewers that lead to the pond
- Report evidence of beaver activity (damming) or other animal activity to the Town so that proper maintenance activities can be carried out
- Do not plant trees within the park area that contains the SWMP without prior approval from the Town
- Obey all signs posted around the ponds and use the amenity areas surround the pond appropriately