

## Why should you be concerned?

Development replaces open land and forest with impervious surfaces such as parking lots, roads and roof tops. As storm water runs off these impervious surfaces it enters streams and rivers at a much faster rate, causing streambank erosion and possible flooding downstream. Detention ponds help to control potential flooding and improve water quality.

Property owners are entirely responsible for maintaining their detention ponds. Detention ponds require maintenance to ensure that they function properly. Poorly maintained ponds, regardless of their design, lose their ability both to control flooding on private property and prevent pollutants like sediments, fertilizers and pesticides from entering the creeks and streams.

## Maintenance Tasks

The following tasks should be conducted regularly to maintain your detention pond:

- Inspect for sediment accumulation
- Remove sediment accumulation
- Inspect and clean debris including dead vegetation or trash
- Inspect for erosion on banks and bottom
- Reestablish vegetation on eroded slopes
- Rake out dead vegetation
- Replace stone riprap
- Mowing
- Inspect structural elements during wet weather
- Make adjustments as determined by annual wet weather inspections
- Keep records of all inspections and maintenance activities

## What type of maintenance is required?

Detention ponds require regular inspection and maintenance to ensure that they are functioning properly to protect private property and improve water quality. At a minimum, the property owner, Homeowners' Association, or business owner should conduct an annual inspection and an inspection after major storms.

## Additional Information

- For new construction in the City of Connersville: drainage plans, post-construction storm water quality plans, and Rule 5 Stormwater Pollution Prevention and Erosion Control Plans are submitted to Connersville Utilities. Copies of the drainage standards and examples of detention pond designs are available from the Utility.
- Please feel free to contact Connersville Utilities at (765) 825-2158 for more information or visit the website at: [www.connersvilleutilities.com](http://www.connersvilleutilities.com)
- Contact the Fayette County Soil and Water Conservation District (SWCD) if you would like more information on stormwater at 765-825-2331.



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# Pond Management and Maintenance



## Helpful Tips for Property Owners

## Inspect Inlet and Outlet Pipes

**Inlet Pipes** direct storm water from developments into detention ponds, including storm water from residential yards, driveways and roads. There may be more than one inlet pipe in a pond.

Check for the following:

- Structural integrity - Inspect the pipe to make sure it isn't crumbling or broken.
- Rip rap - Rip rap (typically pieces of stone) is placed around the pipe where it enters the basin to prevent erosion. Check for erosion around the pipe or missing rip rap.
- Obstructions - Inspect the pipe end to determine if sediment, dirt, or debris is obstructing the flow of water from the pipe into the pond. Minor amounts of sediment around pipe openings can be removed with a shovel and wheelbarrow, spread evenly on upland areas and seeded with grass seed.



**Outlet Pipes** direct storm water from a detention pond to a nearby creek or stream. Typically, there is only one outlet associated with a pond. The outlet may consist of a single pipe, a riser pipe, or some other overflow structure.

Check for the following:

- Structural integrity - Check the pipe to ensure that it isn't crumbling or broken.
- Obstructions - Inspect the pipe end to determine if sediment, dirt, or debris is obstructing the flow of water into the pipe and preventing water from leaving the basin. Stone around the outlet pipe may need to be replaced if it becomes clogged with sediment.

If any of these problems are occurring, or if you have questions, contact Connersville Utilities for assistance.

## Inspect for Litter and Debris

- Twice each year (spring and fall) and after a major storm, check for debris near the inlets and in the pond. Remove and dispose of debris or litter with your household trash.

## Examine the Side Slopes for Erosion

- Twice each year (spring and fall) and after a major storm, check for gullies or sloughing of the banks and other disturbances from animals or vehicles. Any damage observed should be repaired immediately by filling any eroded areas with topsoil and seeding with grass seed. It is also important to place mulch or straw over the seed to prevent it from being washed into the pond.



## Inspect Vegetation

- In the spring and fall, inspect the vegetation on the banks and in the pond. Maintenance activities will vary depending on the type of pond. Dead cattails and other decomposing vegetation in the pond should be removed if they are clogging pipe openings. Living vegetation greatly improves the water quality by filtering out pollutants such as fertilizers, pesticides, oils and grease, and other pollutants from the storm water.
- Late fall is a good time to cut down cattails. This will minimize clogging from dead vegetation. Cut cattails should be disposed of with other compost materials.
- Repair bare spots along banks with grass seed, meadow grass or wildflowers. Most of the pre-mixed wildflower seed packages at local nurseries contain a mix of short-lived, brightly colored annuals and long-lived, less showy perennials. Meadow grasses and wildflowers grown along the banks of the pond will reduce long-term landscape maintenance. Consult with professional landscape architects and nurseries to learn more about meadow plantings.

## Conduct Mowing

- The amount of mowing required depends on the type of pond and the desired appearance. Typically, ponds with grass only need to be mowed two or three times a year. Basins with native grasses and wildflower plantings should be mowed only once a year in the late fall or early spring. More frequent mowing will prevent the wildflowers from blooming and producing seed. Pathways or walkways through wildflower plantings can be mowed more frequently.

## Maintain Vegetation on Banks

- You can add more color and visual interest, as well as improve bird habitat, by planting a variety of shrubs and wildflowers along the banks of ponds.
- When planting vegetation around your pond, remember that it's best to add plants in a 15 to 20-foot zone next to the water's edge. Remember that pesticides and fertilizers usually applied to grass and planting beds should not be applied within this "edge" zone.

## Vegetation Control

- Woody trees and other plants should not be planted along the bank. Their roots can destabilize the banks causing erosion. Plant growth should always be managed and controlled.
- Excessive plant growth will lead to a build-up of dead vegetation which will require dredging and impair the effectiveness of a pond.
- Over applying fertilizers, pesticides, and other chemicals can cause algae blooms in the pond leading to fish kills. Always apply the manufacturer's recommended amount.
- Vegetation control should be checked annually.

## Keep Records

- Keep records of all inspections including the date, name of inspector, what was observed, and maintenance activities performed. Keep records of all costs for inspections, such as consulting with professional engineers, and repair costs. Good records will help you make adjustments to the maintenance program as needed.