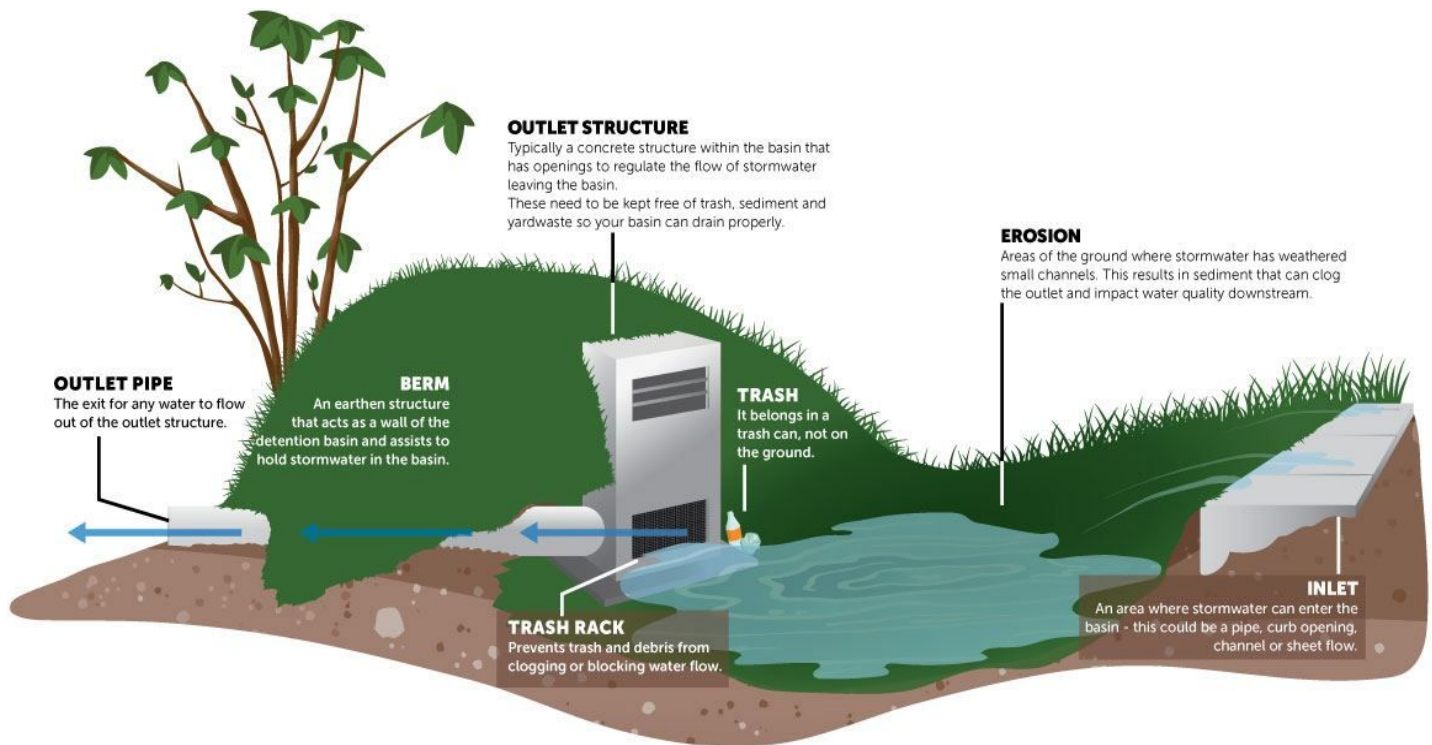




Homeowner's guide to detention pond maintenance

*image courtesy of springfieldmo.gov



Anatomy of a dry detention pond

-Your pond may look different from this example

- They can all look a bit different, but their purpose is the same. Dry Detention Ponds temporarily store stormwater runoff while allowing time for pollutants to settle and the water to slowly be released off site. This reduces flooding as well as erosion to creeks and streams.
- If a pond is not functioning properly, no one is benefiting. If water is still pooling in the pond after 72 hours then maintenance is required.
- Refer to the construction drawings or As-Built certification or contact the City of Chattanooga for clarification on design, and use the guide below to reference maintenance tasks.

Plants in your detention pond

Help! There's plants in there... determining what is best for your pond

Most detention ponds were originally designed with turf grass being the only vegetation present. However, over time, ponds without proper maintenance can develop other plant species. Sometimes this is a problem, and other times it is not.

- **Not all tall plants in your detention pond are bad.** Certain vegetation may be allowed to grow as long as it is not interfering with the pond's ability to function properly.
- Many native plants have deep root systems that help uptake water and hold the soil together. They also aerate the soil with their root systems, allowing it to better infiltrate water. Native plants also provide food & habitat for pollinators & other native flora & fauna (i.e., they support the ecosystem).

Whether the vegetation in your pond should stay or go depends on many factors. One is what type of maintenance you can provide. Maintenance for a turf grass pond is different from one with other types of vegetation present. Typically, a turf grass pond will require only mowing or weed whacking of the grass on a regular basis along with some other basic maintenance tasks. Ponds with native vegetation can require more in-depth vegetation knowledge & care. See the chart below for more information.

- Our *Water Quality Specialists* can give you more information on your pond's specific condition. If your pond does not currently look as it was originally designed, we can help. WQ Specialists can determine what maintenance your pond needs, and what plant species are present, as well as about the pros and cons of each option. For more information:
 - **Contact the City of Chattanooga Water Quality Program** by email at: chattanoogawq@chattanooga.gov for help with your detention pond
 - **Apply for the SFR Ponds program, or learn more about detention/retention ponds:** <http://www.chattanooga.gov/public-works/water-quality-program/sfr-ponds-program>
 - **Find out more about plant ID & how plants impact water quality:** <http://www.chattanooga.gov/public-works/water-quality-program/native-exotic-invasive-plants-resources>

General maintenance for detention ponds

This is a list of maintenance activities that should be done to keep your pond in working order.

Detention Pond Maintenance Activities	Suggested Frequency
<p>Remove accumulated trash & debris from the basin, around the riser pipe, side slopes, embankment, emergency spillway, and outflow trash racks. The frequency of this activity may be altered to meet specific site conditions.</p>	<p>Quarterly, or more frequently, as needed</p>
<p>Clear vegetation out of conveyances and remove sediment from around inlet(s) & outlet to reduce the frequency of main basin cleaning.</p> <ul style="list-style-type: none"> ● Do NOT use herbicide, pesticide, or other chemical sprays in the pond. These have a negative effect on water quality & the environment 	<p>Annually, as needed, if applicable</p>
<p>Remove nuisance or invasive plant species.</p> <ul style="list-style-type: none"> ● Visit http://www.chattanooga.gov/public-works/water-quality-program/native-exotic-invasive-plants-resources for resources on exotic-invasive plant ID. ● Do NOT use herbicide, pesticide, or other chemical sprays in the pond. These have a negative effect on water quality & the environment. 	<p>Annually, as needed</p>
<p>Trim overgrown vegetation in the spring & fall to prevent further establishment of woody vegetation. Remove all clippings from the pond. This also can aid in mosquito control and may add aesthetic value.</p>	<p>Semi-annually, or more frequently, as needed</p>
<p>Keep vegetation around inlet & outlet trimmed to enable water to flow in and out.</p>	<p>Quarterly, or as needed</p>

Keep access (easement) to the pond clear of obstructions like structures and woody vegetation.	Annually
For turf grass ponds, mow the bottom and side slopes. Keep grass at a stand of 6-8" . For native vegetation ponds, only mow side slopes, if applicable	As needed
Repair erosion, may include: grading, seeding, or sod placement	As needed
Monitor structural components (pipes, riser structures, or energy dissipators) for signs of deterioration such as cracks, sinkholes, and separation.	Annually, as needed
Supplement desirable native plants if a significant portion has not been established (at least 50% of the surface area). <i>* This only applies to certain ponds, which have sufficient coverage already present by beneficial native plant species</i>	Annually, as needed
Monitor sediment accumulation and remove accumulated sediment when it exceeds 10-20% of the basin volume, when accumulation reaches 6 inches, or if re-suspension is observed. Sediment removal may require re-grading the pond and establishing new vegetation. Clean in early spring so any vegetation damaged during cleaning has time to re-establish.	Every 10-25 years, as needed
Check inlet & outlet areas for erosion, as these areas can become vulnerable as water comes in and goes out. Make sure there is something in place to dissipate the energy of the water, such as riprap stones. Replace stones as needed.	As needed