STORMWATER BEST MANAGEMENT PRACTICES (BMPS)

Pond and Waterway Maintenance

This document describes various best management practices for owners/operators of neighborhood ponds/water features that drain or discharge to the City of Tulsa's storm sewer system or local waterways. It provides a few easy tips to protect the environment and comply with local water-quality regulations.

See below for ways to keep your ponds clean and free of debris all year long.

Inspect Detention Ponds Regularly

- Inspect ponds once per year and after every large rainfall event.
- Check for flooding, trash, excessive sediment build-up, excessive algae growth and other signs of pollution such as oil sheens, discolored water or unpleasant odors or dead/ distressed fish or wildlife.
- · Schedule maintenance and/or cleaning as needed.

Monitor Drain Times

 For the best water-quality benefit, the pond should hold excess water for at least 24 hours and drain to the normal pool elevation within 72 hours.

Maintain and Protect Vegetative Buffers Around Ponds

- Leave a vegetated buffer around the pond/stream perimeter.
 This will help prevent erosion and pollutants from entering the waterbody.
- Within the vegetated buffer, keep the grass at a longer height and plant or maintain native grasses, shrubs, and trees for shade.
- Protect existing native vegetation and wetland plants in and around ponds.
- Some aquatic plants that make great natural filters include water hyacinth, watercress, cattails, papyrus, water iris, arrowhead and water lettuce.
- If vegetation must be controlled around a pond or waterway
 the use of manual and mechanical devices is mostly
 preferred due to the risk of applying chemicals. If herbicides
 must be used select one that is safe for use around water
 and follow the label.

Draining or Lowering of Water Levels

- In order to conduct needed maintenance, some ponds require the draining or lowering of the water level.
- During draining, care must be taken to ensure that pollutants are not discharged into the storm sewer or other adjacent bodies of water.
- Reduce contaminants through proper placement of intake or outlet structures by utilizing a filtering material to trap the pollutants.
- Take care to control the volume of water in order to prevent downstream flooding.

Notifications and Violations

- Any scheduled discharge to the City of Tulsa's storm sewer system requires notification and approval by the Stormwater and Land Management Division (918) 591-4325.
- Disposal or discharge of anything other than stormwater to the storm sewer system is a violation of the City of Tulsa's Pollution Ordinance, (Title 11- A, Chapter 5). Please review the ordinance before draining or discharging pond water to the storm sewer or adjacent bodies of water.
 - Violators may be subject to enforcement actions.





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Handling Sedimentation Issues

Urbanization can concentrate pollutants that are washed into your pond or water feature during rainfall events. Ponds provide storage for stormwater that allows sediments, and other pollutants, to settle out and accumulate on the bottom. In order to maintain the pond's design capacity, sediment must be removed from time to time. This is usually done using draglines or bucket dredges (when the pond contains water), or bulldozer/backhoe (when the pond is drained of water).

The No. 1 violation incurred during maintenance is the failure to properly dispose of sediment. Sediment must be disposed of in accordance with the Pollution Ordinance.

Waterfowl Population Control

Although ducks and geese are among Tulsa's treasured natural resources, waterfowl populations can quickly get out of hand, resulting in over-population of your pond or water feature in a very short period of time. The accumulation of fecal material around water features will impact the water quality and damage turf and nearby vegetation.

To control waterfowl:

- Discontinue feeding.
- Modify the habitat to make it unattractive to waterfowl so they will not return.
 - Add items that will frighten the waterfowl as soon as it lands.
 - Introduce other repellants.

City of Tulsa Maintainence of Waterbodies

The City of Tulsa is authorized to maintain City owned property and private property to ensure there are no channel blockages or risks to the citizens of Tulsa from flooding issues.. The City however will not maintaince trees, vegetation, erosion or non-flood threatening blockages that are on private property Tulsa's Stormwater and Land Management Division maintains City owned ponds and stream bank property through the use of aquatic herbicides. These herbicides are approved for use around waterbodies and the labels followed appropriately.

If unused pond/waterway maintenance chemicals are leftover disposing of them correctly is imperative. It is against the law to dispose of chemicals down the storm sewer system. To dispose of unused chemicals correctly (from non-business generated waste only) please call 918-596-2100 to schedule a free appointment to drop off chemicals at Tulsa's Household Pollutant Collection Facility. For a list of businesses that take unwanted commercial chemicals, visit: www.cityoftulsa.org/resourcerecovery

Please contact the City of Tulsa Stormwater Quality Department, if you have any questions about the above guidelines at (918) 591-4325.

BMPs are an important tool in helping the City of Tulsa remain a vibrant and healthy place to live and work. They also help the city maintain compliance with its Stormwater Quality Permit.



