

HAMPTON VA

Stormwater Management Facilities

October 25, 2017



Background

- To meet stormwater regulations for quantity and quality, the City is required to construct stormwater management facilities (SWMF) for a variety of capital projects including buildings, roads, and drainage.
- The City is also constructing SWMF's to achieve the requirements of the City's Municipal Separate Storm Sewer System (MS4) Permit and meet the objectives of the Chesapeake Bay Total Maximum Daily Load (TMDL).

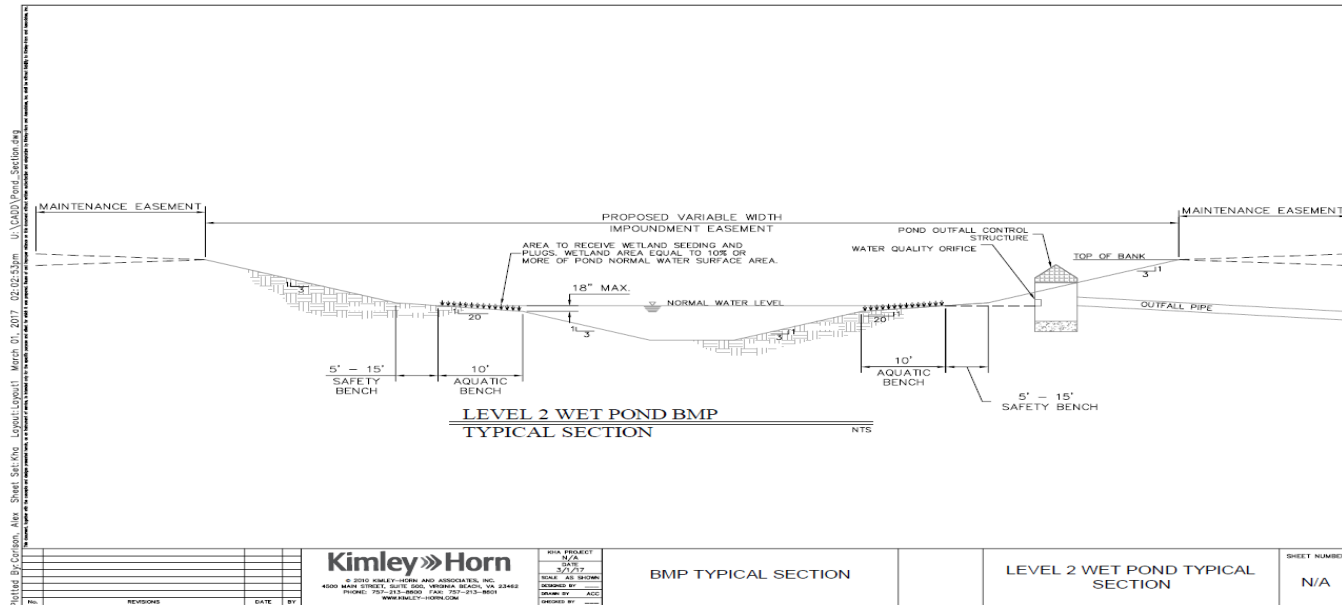
Background

- The City currently is responsible for a total of 45 SWMF's as shown in the table below.

Type	Quantity
Bioretention Basins	2
Detention Basins	8
Grass Swale	2
Green Roof	1
Manufactured BMP	6
Retention Basins/Wet Ponds	26

Safety Guidelines

- Pond safety is an important community concern.
- The most effective safety measures are to provide gentle side slopes, safety benches, and aquatic benches.



Fencing of Wet Ponds

- Due to ongoing concerns with safety at wet ponds, staff contacted other Hampton Roads localities and determined that no one has written policies on when to fence a SWMF.
- The consensus is to use good engineering judgement in determining when a fence is needed.
- The VDOT Drainage Manual states “Fencing of SWM basins may occasionally be needed...”.
- The VA DEQ Stormwater Design Specification for a Wet Pond states “Fencing of the perimeter of wet ponds is discouraged”.

Staff Recommendation

- Staff has developed Safety Guidelines for Publically Owned SWMF's for City Council's consideration.
- These guidelines include:
 - Safety benches and aquatic benches.
 - Recommendations when fencing may be needed, such as:
 - » The basin is deep with a ponded depth greater than about 3' and/or has steep side slopes and is unable to provide the safety and aquatic benches because of design constraints.
 - » The basin is in close proximity to schools, playgrounds or similar areas where children may be expected to frequent
 - » It is recommended by the project engineer and reviewed by the project manager.
 - Requirements for types of fencing.
 - Appropriate signage adjacent to all SWMF's.

Types of Fencing and Signage



NO TRESPASSING
City of Hampton
Stormwater Management Facility

This Stormwater Management Facility (SWMF) plays a crucial role in treating stormwater runoff prior to runoff entering the Chesapeake Bay. Please do not enter, pollute, alter or disturb this SWMF in any way. All routine maintenance will be performed by the City or their designee in accordance with City Code § 33.2-7(b)4 and the State Code § 9VAC25-870-58. If you have questions or need to report a problem please contact the Stormwater Operations Manager at 757-727-8311.

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Costs of Fencing

- Staff has researched the costs of various types of fencing.

Fence Type	Cost per Linear Foot	Burbank Elementary Pond, Length = 370 feet	Forrest Elementary Pond, Length = 650 feet
Metal/Chain	\$17.00	\$6,290.00	\$11,050.00
Wood	\$24.00	\$8,880.00	\$15,600.00
Vinyl	\$24.00	\$8,880.00	\$15,600.00
Aluminum	\$36.00	\$13,320.00	\$23,400.00

Questions?

