STORMWATER & YOU

A PRESENTATION FOR HOME OWNERS ASSOCIATIONS

Adapted from a SCDHEC presentation

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WHY ARE STORMWATER PONDS IMPORTANT

Stormwater ponds are a common sight in urban and suburban areas. They are constructed during the development process to safeguard water quality by collecting and treating stormwater runoff and to protect against flooding. Both state and local authorities require most new developments to manage stormwater runoff.

HOW STORMWATER PONDS WORK

Stormwater ponds detain runoff and allow the pollutants carried by runoff to settle out. First, runoff is conveyed to stormwater ponds by a a combination of overland flow, ditches, swales, and underground pipes. Once runoff reaches a stormwater pond, the sediment settles to the bottom. The water that entered as polluted runoff leaves the pond gradually through an outfall structure, ultimately resulting in cleaner water entering the receiving creek or river.

Stormwater Pond Design & Management

When stormwater ponds are well designed and maintained, they can be moderately to highly effective in reducing the amount of nonpoint source pollutants that reach our shared waterways.

Well-managed stormwater ponds can serve as an amenity to a community and provide habitat for a variety of wildlife and vegetation. Keep in mind that this is not the primary purpose of your community's ponds--filtering pollutants is first and foremost.

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YOUR HOA MAINTENACE RESPONSIBILITIES

All stormwater ponds require maintenance. The homeowners association is often the party responsible for maintaining the neighborhood's stormwater pond(s). This may happen when the developer turns over the neighborhood or sometime in the future (often one year post-construction). Make sure you know when your HOA takes responsibility for the infustructure of your neighborhood.

If not adequately maintained, stormwater ponds can become an eyesore, breed mosquitos and create undesirable odors--in addition to creating situations that will require expensive repairs.

Inspections

- Removal of trash & debris
- Monitoring aquatic plant growth
- Weed management
- Annual inspections and after major storms

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Regular maintenance, annual inspections & periodic dredging are all neccesary for proper pond managment.

Why do you need to maintain your ponds?

When ponds are ignored, problems escalate and can lead to expensive problems!

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DREDGING

Every 10 Years

Stormwater ponds need to be dredged roughly every 10 years or as recommended by a stormwater professional.

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WEED CONTROL

Aquatic vegetation thrive in warm, humid conditions--exactly what we have in South Carolina. For desirable native plants to thrive, weed species must be controlled.

Four Groups of Aquatic Plants

Submersed

Immersed

Shoreline

Algae

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BIOLOGICAL CONTROL

Stocking your pond with certain species, such as tilapia, can help control algea and undesired weeds

HERBICIDES

Herbicides can be cost-effective, but must be used properly in ensure they do not harm desired plant life, cause fish kills or impact water quality.

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RESPONSIBLE PESTICIDE USE

THE USER IS RESPONSIBLE FOR THE EFFECTS OF HERBICIDE: HIRE A PROFESSIONAL!

GENERAL POND MAINTENANCE INCLUDES

Trash and invasive vegetation removal

Mowing adjacent landscape and banks

Revegetation as needed

Inspecting components (inlets, outlet, forebay)

Removing vermin (beavers, muskrats) as needed

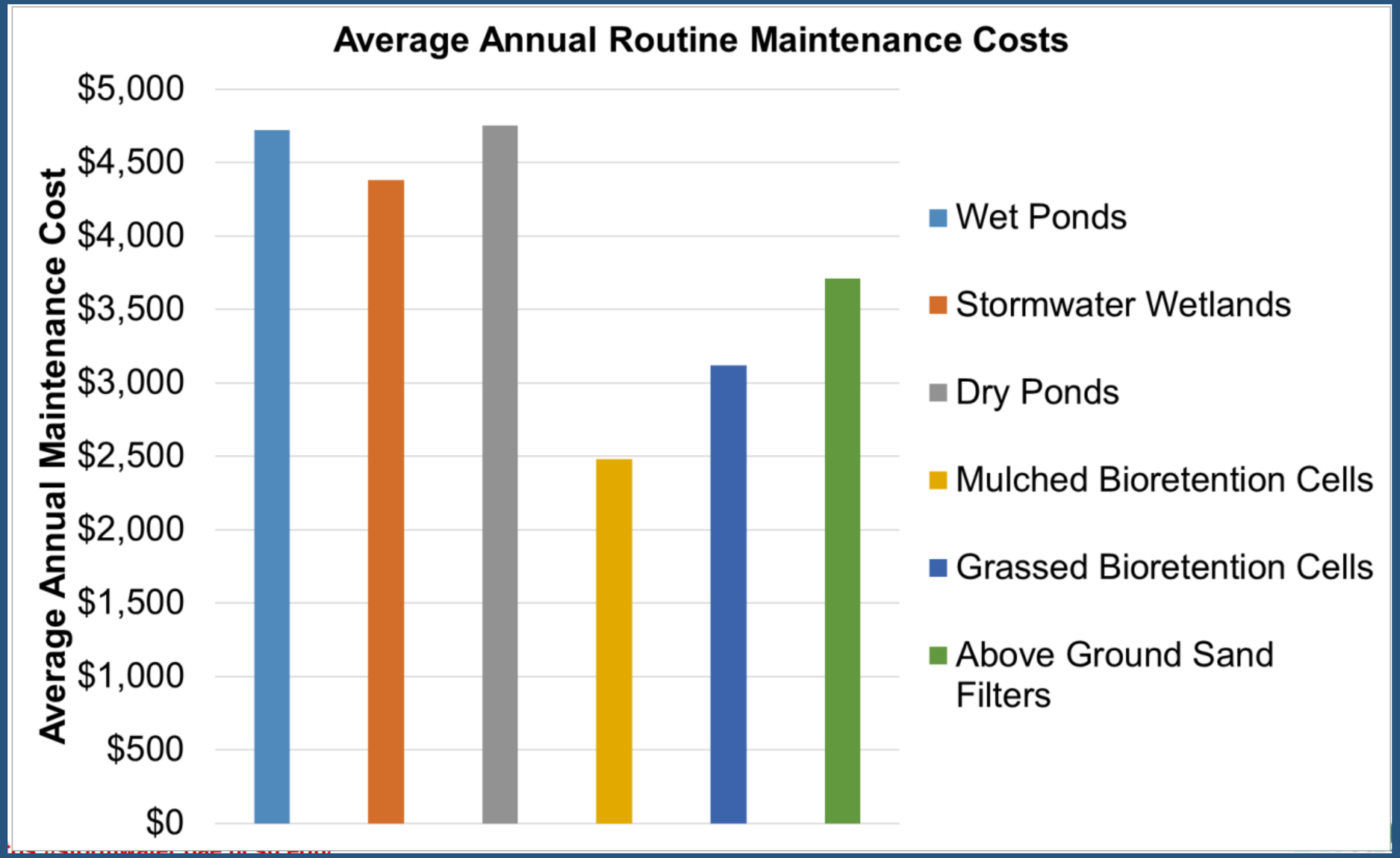

Chart from NC State https://stormwater.bae.ncsu.edu/

Stormwater Utility Fee Credit

Table 1-1: Summary of the Town of Fort Mill Potential Stormwater Utility Credits

Type	Term	Potential Credit	Applications Need to be Prepared by a Qualified Individual*?
Structural SCM Credits			
Specific SCM Credits			
Rain Barrel Credit	Bi-annually	Up to 20% per ERU	N
Rain Garden Credit	Annually	Up to 25%	N
Impervious Surface Reduction Credit	Annually	Up to 25%	N
Pervious Pavement Credit	Annually	Up to 25%	Y
Vegetated Filter Strip Credit	Annually	Up to 25%	Y
Peak Discharge Rate Reduction Credit	Annually	Up to 30%	Y
Runoff Volume Reduction Credit	Annually	Up to 50%	Y
Quality Treatment Credit	Annually	Up to 10%	Y
Non-Structural SCM Credits			
Low Impact Parcel Credit	Annually	Up to 20%	N
Watershed Stewardship Credit	Annually	Up to 10%	N
Education Credit	Annually	Up to 25%	N
Individual NPDES Permit Credit	Permit Term	Up to 20%	N

**Calculated report needs to be signed and sealed by a registered professional engineers or a landscape architects*

For citizens who want to mitigate both pollution, and stormwater flow into storm drains, a credit system has been established in order to reward their conscious efforts.

This table displays all possible stormwater utility credits. The maximum a household can receive is a 50% reduction.

Stormwater Peek Rate Reduction Credit

Peak Rate Reduction Credit is available to property owners who have Town-approved SCMs that reduce the peak rate of stormwater runoff discharged from the property owner's property. Only the impervious surfaces of a particular site that drain through the SCM are eligible for a credit.

The peak rate reduction credit applies to properties with a SCM that reduces post-development peak runoff rates for the 5-year, 10-year, 25-year, 50-year and 100-year design storms to pre-development levels.

Table 3-5: Stormwater Peak Rate Reduction Credit Structure

Controlling 5-YR Storm	Controlling 10-YR Storm	Controlling 25-YR Storm	Controlling 50-YR Storm	Controlling 100-YR Storm
10%	15%	20%	25%	30%

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WAYS HOMEOWNERS CAN HELP

Don't overuse Fertilizers

Don't overuse Herbicides & Pesticides

Pick up after your pets--even in your own yard

Don't water your driveway: use a broom, not a hose to clean off driveways and sidewalks

Wash your car in the grass, not on a hard surface or use a commercial carwash

Stormdrains are for rainwater ONLY.

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VOLUNTEER OPPORTUNITIES FOR RESIDENTS

Adopt-a-Stream

Litter patrol a section of stream that your neighborhood ponds drain into. Help keep your backyard and waterways clean and healthy.

Adopt-a-Stream Water Testing

Once a month volunteers will test water in their neighborhood creek or stream and report their findings to SC DHEC.

Adopt-a-Storm Drain

Families can volunteer right on their own street to keep a stormdrain clean.

REMEMBER, KEEP YOUR PONDS MAINTAINED AND YOU WON'T FEEL ANY *(FINANCIAL)* PAIN!

STORMWATER DEPARTMENT

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THANK YOU

WWW.FORTMILLSC.GOV/STORMWATER

Additional Resources

- SCDHEC: https://scdhec.gov/bow/stormwater
- Clemson Extension Service: https://www.clemson.edu/extension/water/stormwater-ponds/
- South Carolina Department of Natural Resources' Booklet: Illegal Aquatic Plants of South Carolina: https://www.dnr.sc.gov/water/envaff/aquatic/img/illegalaqua.pdf

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