Guidance for Planting in Stormwater Management Ponds

Montgomery County, MD
What we’ll cover

- Take a closer look at ponds
- The benefits of plants
- Planting decision drivers
- Appropriate types of plants
- Maintenance
Ponds—a closer look

- Types
- How they function
Dry or wet? Different opportunities

Dry Pond

Wet Pond
How do they work?

Follow the water...
Plants provide benefits
Why add plants?

Benefits:

- Infiltrate water—roots loosen soil and provide channels
- Evapotranspiration
- Pollutant transformation through soil biology
- Shade and cool runoff
Other benefits of planting

- Habitat
- Aesthetics
- Reduce mowing
- Buffer toxic runoff
- Prevent erosion
- Reduce geese
Planting Decision Drivers

- Maintain functionality
- Determine type of facility
- Understand local conditions
- Minimize costs, maximize effectiveness
- Address challenges: nuisance wildlife, people and pets, soil erosion
- Other considerations: aesthetics, wildlife habitat, erosion control, ease of maintenance
Maintain functionality

Critical features that constrain planting
Where **not** to plant—
control structure, inlets, outlets

Stay 25’ away, plus outfall pipes

Keep flowpaths clear

Don’t block inlets
Where not to plant—Dam embankments

No plants on dams, or 15’ from toe

Before

After
Where **not** to plant—sand filter bottoms

No planting in sand filters or over pipes
Great opportunities to plant—pond slopes
Great opportunities to plant—dry bottoms
Great opportunities to plant—wet edges
Type of facility/local conditions

**WET**
- Shallow water
- Wet edges
- Dry bottoms

**DRY**
- Pond slopes

**SUN**

**SHADE**
Challenges—anticipate and plan for

**Nuisance Wildlife**

**Excess Nutrients**

**People and Pets**

**Ease of Maintenance**
Other considerations

- Aesthetics
- Ease of Maintenance
- Soil Protection
- Wildlife Habitat
How to maximize a limited budget?

- Focus on the edges: reduce water temperature on edges of wet ponds, or along wet channels
- Be selective: choose locations that block or enhance views
- Go native: locally adapted species are more likely to survive and thrive
- Choose trees to reduce maintenance
- Seek support from grant or municipal resources
Selecting Appropriate Plants

- Use native species whenever possible
- Do your research—no invasives!
- Select for local conditions
Shallow water
- Emergent aquatics
- Do not use invasives

Wool Grass
Rose Mallow
Pickerelweed
Wet edges

- Need to handle some drought/low water levels
- Can be subject to salt or pesticides

Soft Rush

New York Ironweed

Blue flag Iris

Swamp Milkweed
Dry bottoms
- Will be temporarily submerged
- Most susceptible to maintenance activity damage

Winterberry
River Birch
Virginia Sweetspire
Blackgum
Pond slopes
-Dry conditions

- Black-eyed Susans
- Switchgrass
- Asters
- Ninebark
If you dream it...

you can build it

(Borrowing from Home Depot)
A Few Words about Maintenance
Maintenance and inspection

- No mulching
- Remove heavy leaf accumulations and debris
- Low flow drains may need more frequent cleaning
- Monitor and remove invasives
- Keep access paths clear
- Keep dams mowed
- Remove captured trash
- Weed on a regular basis
Resources

A Montgomery County Owner’s Guide To Adding Plantings Around Your Stormwater Pond

This guidance document provides information to property owners who want to plant around their existing stormwater management pond.

This guide answers the following questions as well as provides examples and additional resources:

- Why?
  - Why should I add plantings?
- Where?
  - Where am I allowed to plant?
- What?
  - What should I plant?
- How?
  - How should I plant?
- Planted pond example

Stormwater Facility Maintenance Program
www.montgomerycountymd.gov/stormwater
Key Take-aways

- Functionality first
- Plant to reflect conditions
- Choose and locate plants wisely
- DEP can help if you need guidance