DPS | Montgomery County
Department of Permitting Services

2425 Reedie Drive, 7th Floor
Wheaton, MD 20902
240-777-0311
montgomerycountymd.gov/dps

LANDSCAPE DESIGN GUIDELINES

In accordance with Montgomery County Executive Regulation 7-02AM, all above ground stormwater management facilities in Montgomery County shall be landscaped to improve their aesthetics, enhance water quality and improve wildlife habitat. The intent of this requirement is to insure that these structures are developed in a manner that will yield the greatest environmental and amenity benefit to the community.

Design Objectives

At a minimum, the entire stormwater management easement shall be landscaped. At least 40% of the plantable area of the easement shall be planted to vegetation other than turf grass. The following objectives should be considered when choosing the types of plants and their placement, in order to:

1. Assure aesthetic compatibility with the community
2. Enhance water quality
3. Provide wildlife habitat

Plantable area is defined as all areas that can be landscaped with vegetation other than grass. **All other areas will be clearly delineated on the landscape plan, and must be planted in turf grass.** These other areas include: MD 378 embankments and stormwater management easement access areas. Public utility rights-of-way are not considered plantable unless permission has been granted by the responsible utility.

A detailed landscape plan of the stormwater management parcel must be included as part of the sc/swm plan submittal. The plan must be prepared by a Landscape Architect registered in the State of Maryland.

Design Criteria

Landscaping shall enhance the aesthetic appeal of the facility. The facility should blend with the overall landscaping of the site.

The facilities must be designed with irregular, naturalistic curved outlines. Rectangular is not natural.

On MD-378 facilities:

1. No trees or shrubs will be allowed anywhere on the embankment, within 15 ft. of either toe of the embankment, or within 25 ft. of the riser.
2. Plantings are encouraged around private storm drain outfalls.
3. Only groundcovers which meet MD 342 Critical Area Stabilization shall be planted on the embankment. Tall groundcovers make maintenance inspections difficult.
4. Planting trees above the Cpv water surface elevation is encouraged. Limited tree planting may be allowed below the Cpv water surface elevation, with the understanding that this area may flood for long periods if the pond is not properly maintained, and the trees may not survive.
5. Landscaping shall not impede the flow of water in the facility or impede the function of the facility.
6. See MD 378 for further details pertaining to pond design.

On Non MD-378 facilities:

1. Mulched planting islands are permitted on the embankment. These islands can be planted with perennials, ornamental grasses or small shrubs (less than 5 ft mature height), and will cover no more than 30% of the embankment surface area. No running type vegetation will be allowed in these islands.
2. Plantings are allowed within 15 ft of the toe of the dam.
3. Plantings are not allowed within 15 ft of the riser or low flow orifice.
4. No perforated pipes are allowed within the mature tree canopy zone.

5. Except for the planting islands, the remainder of the embankment shall meet MD 342 Critical Area Stabilization.
6. No vegetation will be planted in the sand filter.
7. No woody vegetation will be planted in the grass filter above the sand filter.
8. Limited tree planting may be allowed below the 2 year water surface elevation or the water quality elevation, with the understanding that this area may flood for long periods if the pond is not properly maintained, and the trees may not survive.
9. Landscaping shall not impede the flow of water in the facility or impede the function of the facility.

Trees are not permitted on slopes greater than 3:1 within the stormwater easement.

Slopes steeper than 3:1 anywhere in the easement shall be stabilized according to MD 342 Critical Area Stabilization. No slopes greater than 2:1 are allowed.

Invasive species are not permitted. See appendix A.

No landscaping shall obstruct any maintenance access to the facility.

Choose plant materials that can also supply food and cover for native birds, insects, and mammals wherever possible.

Trees and shrubs shall be selected for the anticipated soil wetness and ponding frequency.

Trees and shrubs should be planted around the perimeter of wet ponds or wetland ponds and at inflow points to help reduce thermal impacts. Ornamental grasses and other tall perennials can be used at outfalls to reduce thermal impacts.

Wildflower meadows are permitted. When used on embankments, the grass component of the wildflower mix shall be doubled and the slopes shall be no steeper than 5:1. Annual inspection is encouraged to check for erosion and woody growth. For greatest wildlife benefit, once yearly mowing should occur in late winter.

Stormwater facilities must have irregular outlines to blend naturally into the environment and provide more aesthetic appeal. Rectangular is not natural.

Vegetation should be planted thickly enough to hold the soil, shade out weeds, and be aesthetically pleasing. Native plants are encouraged, but not required.

Trees shall be a minimum of 2" caliper, shrubs shall be minimum 3 gal. size and herbaceous material shall be a minimum of 1 gallon size.

The soil within the easement area shall be loosened to a depth of three to five inches. Topsoil shall be spread to a depth of four to eight inches. The addition of topsoil will allow plants to become established faster, and will help insure quicker and more complete stabilization.

The Forest Conservation easement and the Stormwater management easement may not overlap. Forest Conservation easements are allowed within the Stormwater management parcel, exclusive of the easement.

The landscape plan shall be included as part of the asbuilt plan, and must be certified by a registered landscape architect.

Substitutions and modifications from the approved landscape plan must be approved by MCDPS prior to implementation. This includes plant substitutions, changes in the number of plants, and revised planting location.

Landscape plan requirements

The plan view of the facility must show, at a minimum:

1. Existing and proposed topography
2. Planting plan/layout. Delineate areas within the easement that must be planted to grass.
3. Label all appropriate water surface elevations.
4. Plant schedule
5. Planting detail
6. Tree staking detail
7. Mulching specification
8. Seeding specification
9. Topsoil specification
10. Fertilizer specification
11. Management plan
12. Delineate the embankment area and all “non-plantable” areas for MD-378 ponds.
13. Delineate the stormwater maintenance easement, including the maintenance access. Note that the access area is not to have trees or shrubs planted on it.
14. Delineate slopes of 3:1 or greater
15. Delineate public utility easements
16. General landscape notes
17. Landscape architect seal

(Follow Landscape Specification Guidelines of the Landscape Contractors association, MD-DC-VA, latest edition.)

Appendix A

Invasive Species

Scientific Name	Common Name	Growth Habit
Acer platanoides	Norway Maple	Tree
Acer pseudoplatanus	Sycamore Maple	Tree
Ailanthus altissima	Tree of Heaven	Tree
Ampelopsis brevipedunculata	Porcelain Berry	Vine
Berberis thunbergii	Japanese Barberry	Shrub
Catalpa sp.	Catalpa	Tree
Celastrus orbiculatus	Oriental Bittersweet	Vine
Coronilla varia	Crown Vetch	Herbaceous
Eleagnus angustifolium	Russian Olive	Shrub
Eleagnus umbellata	Autumn Olive	Shrub
Eulalia vimineus	Beefsteak Mint	Herbaceous
Euonymus alatus	Winged Euonymus	Shrub
Euonymus fortunei	Climbing Euonymus	Vine
Hedera helix *	English Ivy	Vine
Ligustrum sp.	Privet	Shrub
Lonicera sp.	Bush Honeysuckles	Shrub
Lonicera japonica	Japanese Honeysuckle	Vine
Lysimachia nummularia	Moneywort	Herbaceous
Lythrum sp.	Purple Loosestrife	Herbaceous
Morus alba	White Mulberry	Tree
Myoston aquaticum	Moneywort	Herbaceous
Paulownia tomentosa	Empress Tree	Tree
Phellodendron amurense	Amur Cork Tree	Tree
Phragmites australis	Wild Reed	Herbaceous
Phyllostachys sp.	Bamboo	Herbaceous
Prunus avium	Sweet Cherry	Tree
Pueraria lobata	Kudzu	Vine
Rhamnus cathartica	Common Buckthorn	Shrub
Rhamnus frangula	European Buckthorn	Shrub
Rubus illecebrosus	Strawberry-Raspberry	Shrub
Rubus phoenicolasius	Wineberry	Shrub
Spiraea japonica	Japanese Spirea	Shrub
Symphoricarpos orbiculatus	Coralberry	Shrub
Typha sp.	Cattail	Herbaceous
Vinca minor *	Periwinkle	Vine
Wisteria floribunda	Wisteria	Vine
Wisteria sinensis	Chinese Wisteria	Vine

* use with caution. May be used in areas such as parking lot islands where it is not likely to spread.