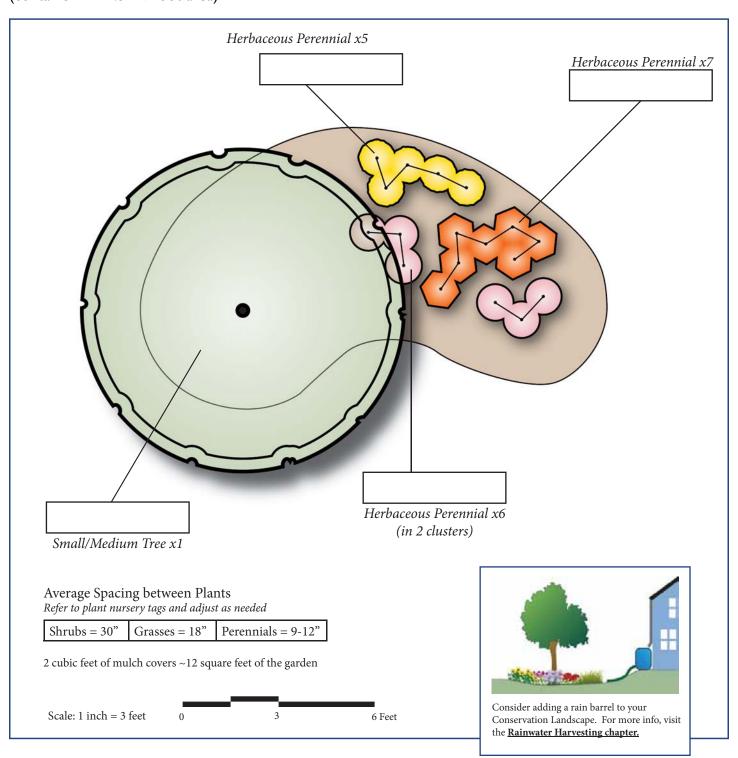
WSA Conservation Landscape Design Tool

Tree - 90 square feet

Sunny, moderately drained soils

(contained in 14.5 x 9 foot area)



Number of plants

Herbaceous perennial type 1:7 plants Herbaceous perennial type 2:6 plants Herbaceous perennial type 3:5 plants

Small/Medium Tree: I plant

Recommended plant options for Anne Arundel County, MD and surrounding areas

These plants are native, and typically successful in the climate zone for Anne Arundel County. For more information about these plants, and for additional plant options, the <u>Ladybird Johnson native plant database</u> is recommended. (Note: for shady conditions, ferns can function in place of a grass/sedge/rush or an herbaceous perennial.)

Plant Type	Plant Latin Name	Plant Common Name	Planting Condition	Maintenance Type	Spacing
Grass/Sedge/ Rush	Chasmanthium latifolium	Northern Sea Oats	Sun/Medium	Minimal	30'' apart
Grass/Sedge/ Rush	Panicum virgatum 'Cape Breeze'	Cape Breeze Switchgrass	Sun/Medium	Minimal	30'' apart
Grass/Sedge/ Rush	Panicum virgatum 'Cloud Nine'	Cloud Nine Switchgrass	Sun/Medium	Minimal	36" apart
Grass/Sedge/ Rush	Panicum virgatum 'Heavy Metal'	Heavy Metal Switchgrass	Sun/Medium	Minimal	36'' apart
Grass/Sedge/ Rush	Panicum virgatum 'Northwind'	Northwind Switchgrass	Sun/Medium	Minimal	36'' apart
Grass/Sedge/ Rush	Panicum virgatum 'Prairie Sky'	Prairie Sky Switchgrass	Sun/Medium	Minimal	36'' apart
Grass/Sedge/ Rush	Panicum virgatum 'Rotstrahlbusch'	Rotstrahlbusch Switch Grass	Sun/Medium	Minimal	36'' apart
Grass/Sedge/ Rush	Schizachyrium scoparium 'Standing Ovation'	Standing Ovation Little Blue Stem	Sun/Medium	Minimal	18" apart
Grass/Sedge/ Rush	Sorghastrum nutans	Indian Grass	Sun/Medium	Minimal	30'' apart
Herbaceous Perennial	Amsonia hubrichtii	Threadleaf Bluestar	Sun/Medium	Low	18'' apart
Herbaceous Perennial	Asclepias incarnata	Swamp Milkweed	Sun/Medium	Minimal	18'' apart
Herbaceous Perennial	Asclepias tuberosa	Butterfly Weed	Sun/Medium	Minimal	18'' apart
Herbaceous Perennial	Boltonia asteroides	False Aster	Sun/Medium	Minimal	18'' apart
Herbaceous Perennial	Eupatorium 'Little Joe'	Little Joe Joe Pye Weed	Sun/Medium	Minimal	18'' apart
Herbaceous Perennial	Heliopsis helianthoides	False Sunflower	Sun/Medium	Medium	18'' apart
Herbaceous Perennial	Liatris spicata	Gayfeather	Sun/Medium	Minimal	18'' apart

Plant Type	Plant Latin Name	Plant Common Name	Planting Condition	Maintenance Type	Spacing
Herbaceous Perennial	Penstemon digitalis 'Husker Red'	Beardtongue	Sun/Medium	Medium	18" apart
Herbaceous Perennial	Phlox divaricata	Wild Phlox	Sun/Medium	Medium	18" apart
Herbaceous Perennial	Phlox maculata	Speckled Phlox	Sun/Medium	Medium	18" apart
Herbaceous Perennial	Rudbeckia fulgida var. fulgida	Black Eyed Susan	Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Rudbeckia hirta	Black Eyed Susan	Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Rudbeckia maxima	Coneflower	Sun/Medium	Medium	18" apart
Herbaceous Perennial	Solidago rugosa 'Fireworks'	Fireworks Goldenrod	Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Vernonia 'Iron Butterfly'	Iron Butterfly New York Ironweed	Sun/Medium	Medium	18" apart
Shrub	Aronia arbutifolia	Chokeberry	Sun/Medium	Minimal	48'' apart
Shrub	Aronia arbutifolia 'Brilliantissima'	Brilliantissima Chokeberry	Sun/Medium	Minimal	18" apart
Shrub	Callicarpa americana	Purple Beautyberry	Sun/Medium	Low	48'' apart
Shrub	Clethra alnifolia 'Ruby Spice'	Ruby Spice Sweet Pepper Bush	Sun/Medium	Minimal	48'' apart
Shrub	Clethra alnifolia 'Sixteen Candles'	Sixteen Candles Sweet Pepper Bush	Sun/Medium	Minimal	48'' apart
Shrub	Cornus sericea	Red Twig Dogwood	Sun/Medium	Minimal	48'' apart
Shrub	Hibiscus coccineus	Scarlet Rose Mallow	Sun/Medium	Minimal	48'' apart
Shrub	Hibiscus moscheutos	Rose Mallow	Sun/Medium	Minimal	48'' apart
Shrub	llex glabra	Inkberry	Sun/Medium	Minimal	36'' apart
Shrub	Ilex verticillata 'Southern Gentleman'	Pollinator for Sparkleberry Winterberry	Sun/Medium	Minimal	36" apart
Shrub	Ilex verticillata 'Sparkleberry'	Sparkleberry Winterberry	Sun/Medium	Minimal	60" apart
Shrub	Viburnum dentatum	Arrowwood Viburnum	Sun/Medium	Minimal	48'' apart
Shrub	Viburnum nudum 'Winterthur'	WinterthurViburnum	Sun/Medium	Minimal	48'' apart
Tree	Amelanchier laevis	Allegheny Serviceberry	Sun/Medium	Minimal	60'' + apart
Tree	Carpinus caroliniana	Ironwood	Sun/Medium	Medium	60'' + apart
Tree	Cercis canadensis	Redbud	Sun/Medium	Minimal	60'' + apart
Tree	Chionanthus virginicus	Fringe Tree	Sun/Medium	Minimal	60'' + apart
Tree	llex opaca	American Holly	Sun/Medium	Minimal	60'' + apart
Tree	Juniperus virginiana	Eastern Red Cedar	Sun/Medium	Minimal	60'' + apart
Tree	Magnolia virginiana	Sweet Bay Magnolia	Sun/Medium	Minimal	60'' + apart
Tree	Taxodium distichum 'Peve Minaret'	Peve Minaret Bald Cypress	Sun/Medium	Minimal	60" + apart

Materials Needed

Mulch: 23 cubic feet (0.8 cubic yards) - this assumes 3" of mulch cover

Compost: 15 cubic feet (0.6 cubic yards) – this assumes the top 6" of soil is being amended with compost

Soil media: 90 cubic feet (3.3 cubic yards) – this is only required if replacing soil

Soil removal: 38 cubic feet (1.4 cubic yards) if amending soil, 113 cubic feet (4.2 cubic yards) if replacing soil

The plants recommended above are reliable, hardy, area-appropriate plants for central and eastern Maryland and the surrounding areas. However, many other options are available. Other references for appropriate plants include the <u>Maryland Stormwater Design Manual</u>, Appendix A, the <u>Ladybird Johnson native plant database</u>, and the <u>Piedmont Natives plant database</u>.

There are alternative layouts possible with the same general character and plant makeup. Click here for alternative layouts.

Also, if you use a custom size practice, by area or depth, the material quantities change. Use the following calculator to give you a more accurate set of material quantities. It will also calculate the amount of pollutant removal, which may be of interest. Note: this pollutant removal is not yet approved by the Chesapeake Bay Program, but is based on other Bay Program protocols for runoff reduction.

Conservation Landscape calculator

Installation Steps

(For more detail on these steps, please see the Conservation Landscape chapter of the WSA Manual.)

- I. Call Miss Utility to mark any existing utilities
 - a. (800) 257-7777 or 811 for most of Maryland, and Washington, DC
 - b. (800) 441-8355 for Eastern Shore Maryland
 - c. (800) 282-8555 for Delaware
- 2. Outline the area for the conservation landscape
- 3. Remove the turf grass
- 4. If amending existing soil:
 - a. Remove excess soil
 - b. Add compost
 - c. Till soil to work compost in
- 5. If replacing soil:
 - a. Remove existing soil
 - b. Replace with new soil mixture
- 6. Install stone inlet channel (if receiving water from uphill)
- 7. Install plants and mulch
- 8. Water!

Maintenance Plan

Recommended Maintenance Tasks for Conservation Landscapes

Maintenance Tasks	Frequency	
 Water once every three days for the first month and then weekly during the first growing season (April-October), depending on rainfall. Expect up to 10% of the plant stock to NOT do well in the first year, and plan accordingly for replacement plants. 	Upon establishment	
 Check inlets and overflow areas for debris or leaves that are blocking flow. Check and repair erosion areas. 	After heavy rains in 1st month; periodically in subsequent years	
Remove weeds by hand.	Monthly for first growing season; every 3 months in subsequent years	
 For "meadow" type Conservation Landscapes consisting of grasses, mow in early spring. For other types of landscapes, check for winter damage and add mulch to bare spots as desired (2–3 inches) Cut back perennials and remove dead growth 	March or April	
 Add reinforcement planting to maintain the desired vegetation density. Prune trees and shrubs; thin herbaceous plants as desired. 	Fall	
 Remove invasive and non-native plants using recommended control methods. Remove any dead or diseased plants. Stabilize any eroded or bare areas Remove trash 	As needed	

Additional References

WSA Rainscaping Manual
RainScapes Program (Montgomery County, MD)
U.S. Fish & Wildlife Service - BayScapes







