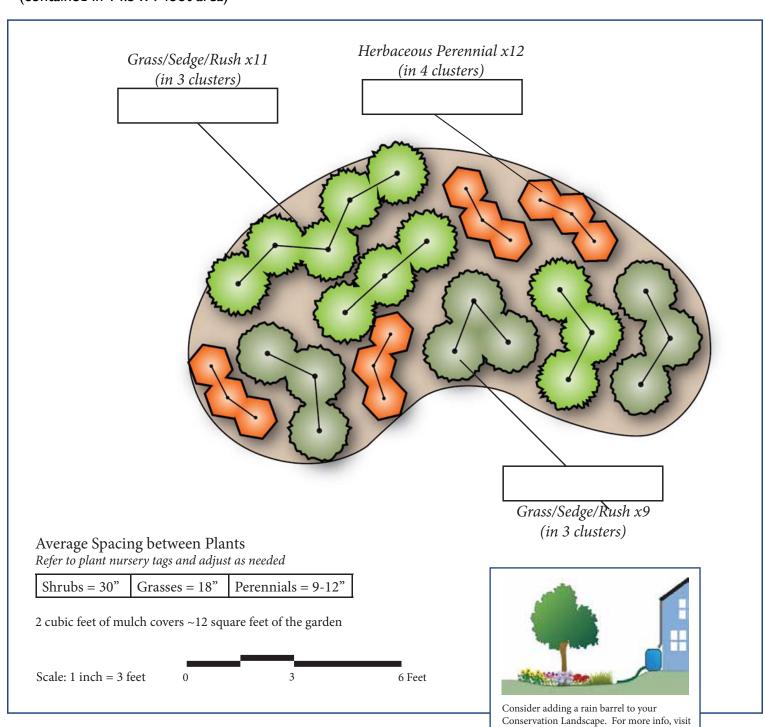
WSA Conservation Landscape Design Tool

Meadow - 90 square feet

Sunny, moderately drained soils

(contained in 14.5 x 9 foot area)



the Rainwater Harvesting chapter.

Number of plants

Grass/sedge/rush type 1: 11 plants Grass/sedge/rush type 2: 9 plants Herbaceous perennial: 12 plants

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 |
| Herbaceous Perennial | Penstemon digitalis 'Husker Red' | Beardtongue | Sun/Medium | Medium | 18'' apart |
| Herbaceous Perennial | Phlox divaricata | Wild Phlox | Sun/Medium | Medium | 18'' apart |

| Plant Type | Plant Latin Name | Plant Common Name | Planting Condition | Maintenance Type | Spacing |
|-------------------------|---|---|-----------------------|---------------------|--------------|
| 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 | Ilex glabra | Inkberry | Sun/Medium | Minimal | 36" apart |
| Shrub | llex verticillata 'Southern Gentleman' | Pollinator for Sparkleberry Winterberry | Sun/Medium | Minimal | 36'' apart |
| Shrub | llex 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.)

- 1. 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







