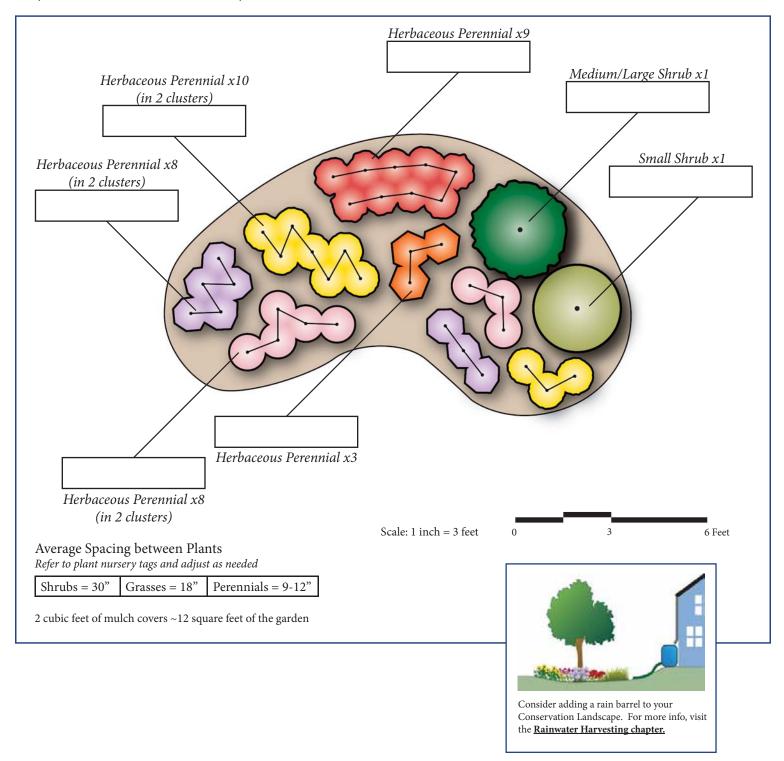
WSA Conservation Landscape Design Tool

Butterfly Garden – 90 square feet

Part Sun, wet soils

(contained in 14.5×9 foot area)



Number of plants

Herbaceous perennial type 1: 10 plants Herbaceous perennial type 2: 9 plants Herbaceous perennial type 3: 8 plants Herbaceous perennial type 4: 8 plants Herbaceous perennial type 5: 3 plants Medium/Large Shrub: 1 plant Small Shrub: 1 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	Carex stricta	Tussock Sedge	Part Sun/Wet	Minimal	18'' apart
Grass/Sedge/Rush	Chasmanthium latifolium	Northern Sea Oats	Part Sun/Wet	Minimal	30'' apart
Grass/Sedge/Rush	Juncus effusus	Common Rush	Part Sun/Wet	Minimal	18'' apart
Grass/Sedge/Rush	Juncus inflexus 'Blue Arrows'	Blue Arrows Common Rush	Part Sun/Wet	Minimal	18'' apart
Herbaceous Perennial	Chelone glabra	Turtlehead	Part Sun/Wet	Minimal	18'' apart
Herbaceous Perennial	Chelone Iyonii 'Hot Lips'	Pink Turtlehead	Part Sun/Wet	Minimal	18'' apart
Herbaceous Perennial	Iris versicolor	Blue Flag Iris	Part Sun/Wet	Minimal	18'' apart
Herbaceous Perennial	Lobelia cardinalis	Cardinal Flower	Part Sun/Wet	Minimal	18'' apart
Herbaceous Perennial	Mertensia virginica	Virginia Bluebells	Part Sun/Wet	Minimal	18'' apart
Shrub	Aesculus parvifolia	Bottlebrush Buckeye	Part Sun/Wet	Minimal	48'' apart
Shrub	Cepholanthus occidentalis	Buttonbush	Part Sun/Wet	Minimal	48'' apart
Shrub	Hibiscus moscheutos	Rose Mallow	Part Sun/Wet	Minimal	48'' apart
Shrub	llex verticillata 'Southern Gentleman'	Pollinator for Sparkleberry Winterberry	Part Sun/Wet	Minimal	36" apart
Shrub	llex verticillata 'Sparkleberry'	Sparkleberry Winterberry	Part Sun/Wet	Minimal	60" apart
Shrub	Lindera benzoin	Spicebush	Part Sun/Wet	Minimal	48'' apart
Shrub	Sambucus canadensis	Elderberry	Part Sun/Wet	Minimal	48'' apart
Tree	Alnus incana	Gray Alder	Part Sun/Wet	Minimal	60'' + apart
Tree	Amelanchier laevis	Allegheny Serviceberry	Part Sun/Wet	Minimal	60'' + apart
Tree	Asimina triloba	Paw Paw	Part Sun/Wet	Minimal	60'' + apart
Tree	Betula nigra	River Birch	Part Sun/Wet	Minimal	60'' + apart
Tree	Carpinus caroliniana	Ironwood	Part Sun/Wet	Medium	60'' + apart
Tree	Nyssa sylvatica	Black Tupelo	Part Sun/Wet	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</u> <u>Stormwater Design Manual, Appendix A</u>, the <u>Ladybird Johnson native plant database</u>, and the <u>Piedmont Natives plant</u> <u>database</u>.

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

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 1 st 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

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







