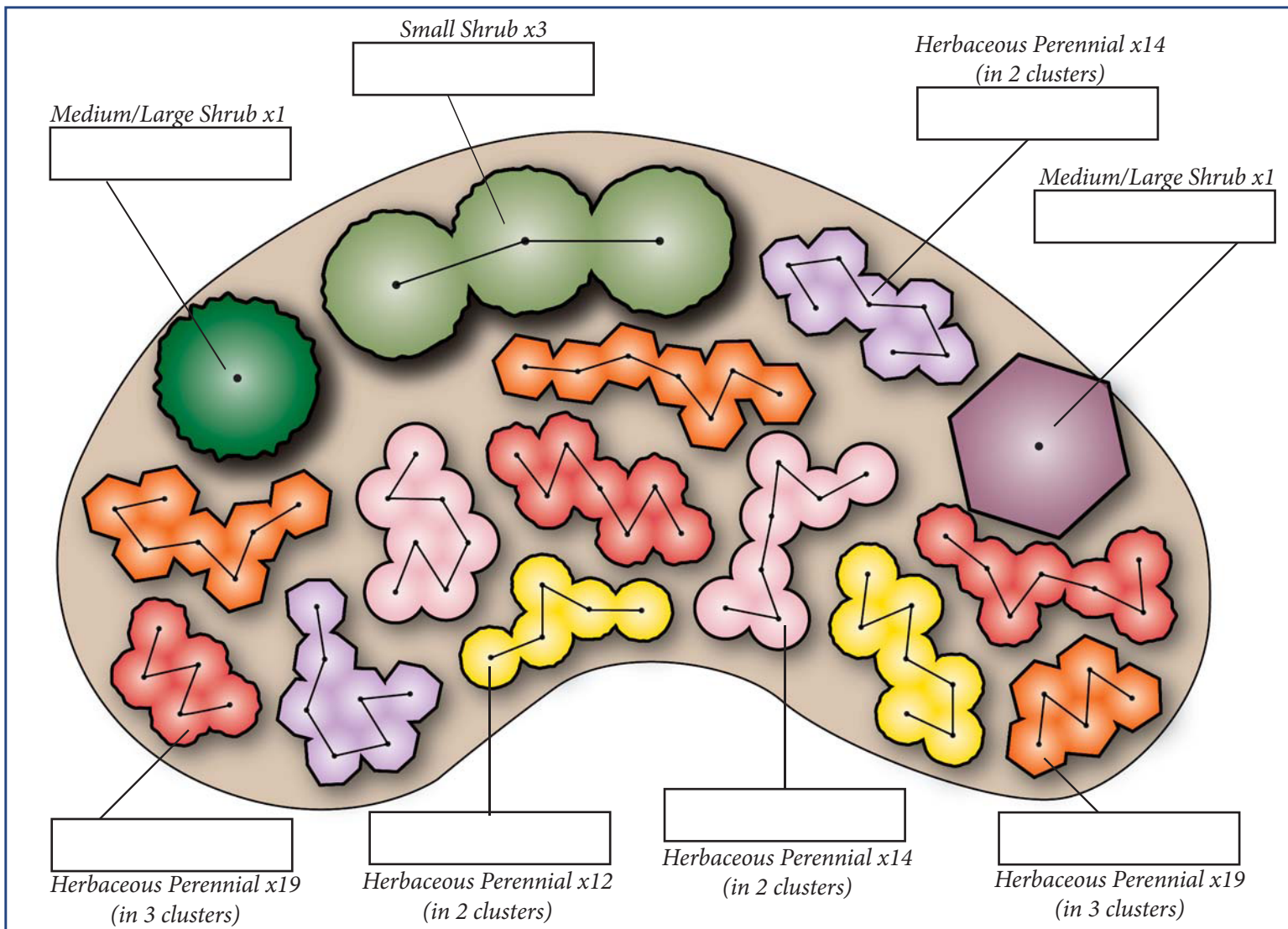


Butterfly Garden – 180 square feet

Part sun, moderately drained soils

(contained in 21 x 12.5 foot area)



Average Spacing between Plants
Refer to plant nursery tags and adjust as needed

Shrubs = 30"	Grasses = 18"	Perennials = 9-12"
--------------	---------------	--------------------

2 cubic feet of mulch covers ~12 square feet of the garden

Scale: 1 inch = 3 feet



Consider adding a rain barrel to your Conservation Landscape. For more info, visit the [Rainwater Harvesting chapter](#).

Number of plants

Herbaceous perennial type 1: 19 plants
 Herbaceous perennial type 2: 19 plants
 Herbaceous perennial type 3: 14 plants
 Herbaceous perennial type 4: 14 plants
 Herbaceous perennial type 5: 12 plants
 Medium/Large Shrub type 1: 1 plant
 Medium/Large Shrub type 2: 1 plant
 Small Shrub: 3 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 [Ladybird Johnson native plant database](#) 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 glauca 'Blue Zinger'	Blue Zinger Sedge	Part Sun/Medium	Minimal	18" apart
Grass/Sedge/Rush	Carex pensylvanica	Pennsylvania Sedge	Part Sun/Medium	Minimal	12" apart
Grass/Sedge/Rush	Chasmanthium latifolium	Northern Sea Oats	Part Sun/Medium	Minimal	30" apart
Grass/Sedge/Rush	Elymus arenarius 'Blue Dune'	Blue Lyme Grass	Part Sun/Medium	Low	18" apart
Herbaceous Perennial	Aquilegia canadensis	Columbine	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Boltonia asteroides	False Aster	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Chelone glabra	Turtlehead	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Chelone lyonii 'Hot Lips'	Pink Turtlehead	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Geranium sanguineum 'Rozanne'	Rozanne Cranesbill	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Liatris microcephala	Smallhead Gayfeather	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Liatris spicata	Gayfeather	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Lobelia cardinalis	Cardinal Flower	Part Sun/Medium	Minimal	18" apart
Herbaceous Perennial	Senecio aureus	Golden Ragwort	Part Sun/Medium	Minimal	18" apart
Shrub	Aronia arbutifolia	Chokeberry	Part Sun/Medium	Minimal	48" apart
Shrub	Aronia arbutifolia 'Brilliantissima'	Brilliantissima Chokeberry	Part Sun/Medium	Minimal	48" apart
Shrub	Comptonia peregrina	Sweetfern	Part Sun/Medium	Minimal	48" apart
Shrub	Hydrangea arborescens	Smooth Hydrangea	Part Sun/Medium	Low	48" apart
Shrub	Hydrangea arborescens 'Annabelle'	Annabelle Smooth Hydrangea	Part Sun/Medium	Low	48" apart
Shrub	Kalmia latifolia	Mountain Laurel	Part Sun/Medium	Medium	48" apart
Shrub	Lindera benzoin	Spicebush	Part Sun/Medium	Minimal	48" apart
Shrub	Rhus aromatica 'Gro Lo'	Gro Lo Fragrant Sumac	Part Sun/Medium	Minimal	48" apart



Plant Type	Plant Latin Name	Plant Common Name	Planting Condition	Maintenance Type	Spacing
Shrub	Viburnum acerifolium	Mapleleaf Viburnum	Part Sun/Medium	Minimal	48" apart
Tree	Amelanchier laevis	Allegheny Serviceberry	Part Sun/Medium	Minimal	60" + apart
Tree	Asimina triloba	Paw Paw	Part Sun/Medium	Minimal	60" + apart
Tree	Betula nigra	River Birch	Part Sun/Medium	Minimal	60" + apart
Tree	Cercis canadensis	Redbud	Part Sun/Medium	Minimal	60" + apart
Tree	Chionanthus virginicus	Fringe Tree	Part Sun/Medium	Minimal	60" + apart
Tree	Hamamelis virginiana	Witch Hazel	Part Sun/Medium	Minimal	60" + apart
Tree	Nyssa sylvatica	Black Tupelo	Part Sun/Medium	Minimal	60" + apart

Materials Needed

Mulch: 45 cubic feet (1.7 cubic yards) – this assumes 3" of mulch cover

Compost: 30 cubic feet (1.1 cubic yards) – this assumes the top 6" of soil is being amended with compost

Soil media: 180 cubic feet (6.7 cubic yards) – this is only required if replacing soil

Soil removal: 75 cubic feet (2.8 cubic yards) if amending soil, 225 cubic feet (8.3 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 [Maryland Stormwater Design Manual, Appendix A](#), the [Ladybird Johnson native plant database](#), and the [Piedmont Natives plant database](#).

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
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Remove weeds by hand. 	Monthly for first growing season; every 3 months in subsequent years
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Add reinforcement planting to maintain the desired vegetation density. Prune trees and shrubs; thin herbaceous plants as desired. 	Fall
<ul style="list-style-type: none"> 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](#)