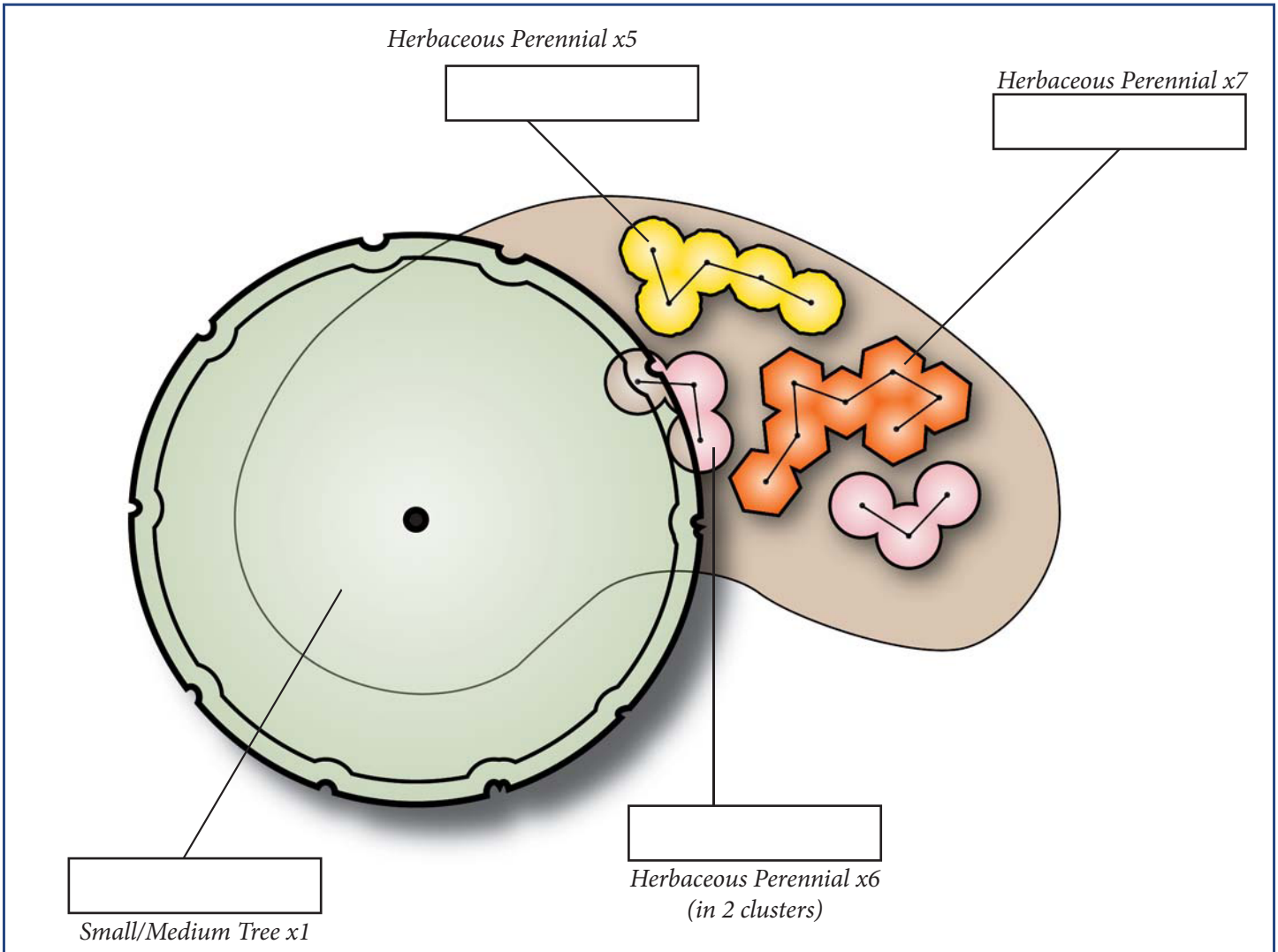
WSA Conservation Landscape Design Tool

Tree – 90 square feet

Shady, wet soils

(contained in 14.5 x 9 foot area)



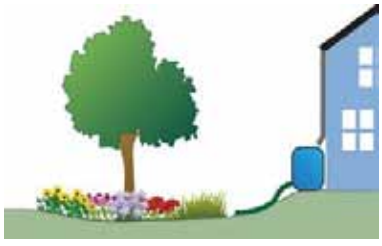
Average Spacing between Plants

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: 7 plants
Herbaceous perennial type 2: 6 plants
Herbaceous perennial type 3: 5 plants
Small/Medium Tree: 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 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
Fern	Dryopteris intermedia	Evergreen Wooded Fern	Shady/Wet	Low	18" apart
Fern	Matteucia pensylvanica	Ostrich Fern	Shady/Wet	Low	18" apart
Fern	Onoclea sensibilis	Sensitive Fern	Shady/Wet	Low	18" apart
Fern	Osmunda cinnamomea	Cinnamon Fern	Shady/Wet	Low	18" apart
Fern	Polystichum aristichoides	Christmas Fern	Shady/Wet	Low	18" apart
Grass/Sedge/Rush	Acorus calumus	Sweet Flag	Shady/Wet	Minimal	18" apart
Grass/Sedge/Rush	Acorus gramineus 'Minimus Aureus'	Dwarf Golden Variegated Sweet Flag	Shady/Wet	Minimal	18" apart
Grass/Sedge/Rush	Carex crinita	Fringed Sedge	Shady/Wet	Minimal	18" apart
Herbaceous Perennial	Chelone glabra	Turtlehead	Shady/Wet	Minimal	18" apart
Herbaceous Perennial	Chrysogonum virginianum	Green and Gold	Shady/Wet	Minimal	18" apart
Herbaceous Perennial	Iris versicolor	Blue Flag Iris	Shady/Wet	Minimal	18" apart
Herbaceous Perennial	Lobelia cardinalis	Cardinal Flower	Shady/Wet	Minimal	18" apart
Shrub	Clethra alnifolia	Sweet Pepper Bush	Shady/Wet	Minimal	48" apart
Shrub	Cornus sericea	Red Twig Dogwood	Shady/Wet	Minimal	48" apart
Shrub	Lindera benzoin	Spicebush	Shady/Wet	Minimal	48" apart
Tree	Acer rubrum	Red Maple	Shady/Wet	Minimal	60" + apart
Tree	Asimina triloba	Paw Paw	Shady/Wet	Minimal	60" + apart
Tree	Magnolia virginiana	Sweet Bay Magnolia	Shady/Wet	Minimal	60" + apart
Tree	Salix sericea	Silky Willow	Shady/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 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
• 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