

## Buffer Garden Plans

### Overview of the Buffer Garden Plans

**This chapter contains 24 Buffer Garden Plans that have been designed to satisfy the requirements for planting in the Buffer.** The Buffer Garden Plans can be copied and can be submitted with the accompanying Landscape Schedule and Buffer Management Plan Notes to your local government as part of your permit application. At the top of each Buffer Garden Plan, there is an approximate square footage credit that can be used to select a Plan to meet the requirements associated with your project. The Plans have been created to provide the percentages of trees, shrubs, and herbaceous plants that are specified in the Buffer regulations. (In some cases, the “Actual Total Credit” shown at the bottom of the Landscape Schedule is slightly higher where quantities have been adjusted for aesthetic purposes.) If you want to select different species to address specific conditions in your yard, just make

sure that you replace the plants with the same plant type and use plant species that are native to Maryland’s Coastal Plain. For example, a canopy tree should be replaced with another canopy tree in order to ensure that the integrity of the Plan is maintained.

If you want more information about specific plant species or want to explore some alternative species, all of the plants used were selected from the U.S. Fish and Wildlife Service publication *Native Plants for Wildlife Habitat and Conservation Landscaping Chesapeake Bay Watershed*. This publication describes in detail over 400 different species of trees, shrubs, herbaceous plants, grasses, vines, and ferns. This guide is a wealth of information about growing conditions, mature size, and wildlife value. It is available online at [nps.gov/plants/pubs/chesapeake](https://nps.gov/plants/pubs/chesapeake). When selecting alternatives, make sure to look for species that are native to the Coastal Plain.



A garden area of native shrubs, grasses, and wildflowers planted near young saplings can provide a transition between existing lawn and maturing forest.

## Landscape Schedules

Each Buffer Garden Plan is accompanied by a Landscape Schedule that includes the following information:

<b>Symbol:</b>	Identifies the type of plant on the Buffer Garden Plan
<b>Common Name:</b>	Refers to the generally used name of the plant
<b>Scientific Name:</b>	Provides the detailed Latin name of the plant that specifically identifies its genus and species
<b>Size:</b>	Indicates the size of the plant to be planted in order to obtain the credit
<b>Plant Type:</b>	Specifies the position of the plant in the forest structure and generally indicates overall mature height
<b>Total Number:</b>	Indicates the quantity of plants of each species that are included in the Buffer Garden Plan
<b>Credit:</b>	Provides the square footage credit associated with the total number of each species
<b>Actual Total Credit:</b>	Provides the actual total square footage credit. In some cases this may exceed the square footage in the title because the garden exceeds the minimum requirements for aesthetic purposes
<b>Notes:</b>	Provides additional information about species selection, alternatives to increase the total credit, and modifications to improve water quality and habitat benefits

## Plant Spacing

The Buffer Garden Plans numbered 1 through 18 in this chapter have been drawn at a scale of 1/8 inch equals one foot (1/8" = 1'– 0") or 1 inch equals eight feet. Buffer Garden Plans 19 through 24 have been drawn at a scale of 1/16 inch equals one foot (1/16" = 1"– 0") or one inch equals 16 feet. You can use a regular ruler to measure the spacing of the plants. There is some flexibility with the spacing, but do consider that many canopy trees grow to 50 feet tall or more, and the canopy may cover as much 1,000 square feet. It is fine to adjust plants to work around existing vegetation or to accommodate structures or utilities in your yard. The garden plans show how trees, shrubs, and herbaceous plants can be located and arranged so they can grow to maturity and provide optimum water quality and habitat benefits. If your site requires modification of a garden plan, the following standards should be used:

- Canopy trees (using the trunk as the planting location) should be planted 14 to 20 feet apart.
- Understory trees can be planted under canopy trees, but should be spaced at least eight to ten feet away from the trunk of a canopy tree or another understory tree.
- Large shrubs can be planted under canopy trees and understory trees, but should be planted at least five to seven feet away from trees or other large shrubs.
- Small shrubs can be planted under canopy trees and understory trees, but should be planted at least three to five feet away from trees, large shrubs, or other small shrubs.
- Herbaceous plants can be planted under and around trees and shrubs. It is important to consider how much sun the plants need. Herbaceous plants may be easier to maintain when they are planted in groups, with individual plants spaced at least one to two feet apart.

## Planting Your Buffer Garden

You will notice in some of the Buffer Garden Plans that the trees and shrubs may overlap slightly. This is to show that as the trees and shrubs grow and mature, the leaves and branches of some of the canopy trees will touch and grow over the understory trees and shrubs. Planting in this way will ensure that your garden develops into one with a natural forest structure. In a natural woodland setting, the vegetation is randomly scattered with the canopies of larger trees overlapping each other. Understory trees, large shrubs, and small shrubs grow beneath the canopy. Herbaceous plants may be present and quite dense in some areas and sparser in other areas. Some canopy tree species can actually function as understory species when the available sunlight, water, and nutrients are restricted by taller and faster growing canopy tree species. This is not problematic but is an adaptive characteristic of a natural forest.

In general, large and small shrubs can be planted either underneath the tree canopy or outside of the canopy. Many shrub species tend to adapt their growing habits and size depending on the sunlight, space, water, and nutrients available. Shrubs with ample growing area and optimum sunlight will get fuller and larger than those that may be closer to other plantings. The Buffer Garden Plans show herbaceous plants spaced two feet apart. Depending on the size of the plant at maturity, herbaceous plants can be planted more densely. They are generally more tolerant of crowded growing conditions than shrubs and trees and can be easily transplanted or separated as they mature. Allowing adequate area for the plantings in your Buffer Garden ensures the long-term survival, good health, and optimum water quality and habitat benefits of your Buffer.

*Planting more densely minimizes weeding and can improve soil porosity, composition, and texture.*

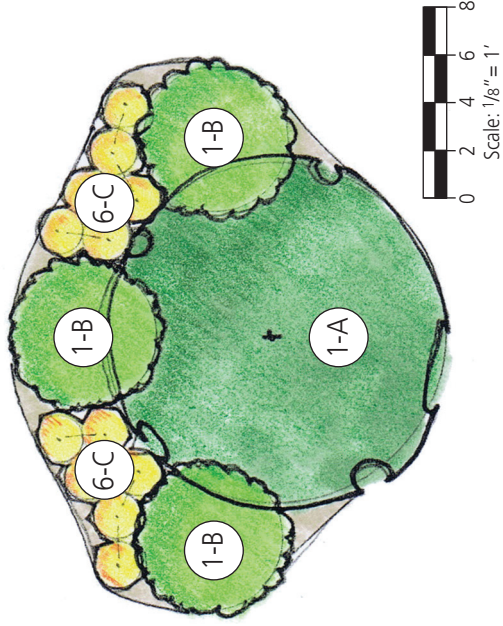
These Buffer Garden Plans have been drawn to show the general areal coverage and size of the trees and shrubs as they begin to mature. Depending on the size and age of the plants that you purchase for your garden, you may find that certain areas of the garden seem somewhat bare when the plants are first put in place. This ensures that the larger canopy and understory trees won't be overcrowded as they grow. All of the herbaceous plants, grasses, vines, and ferns listed in the Landscape Schedules are perennial plants, meaning that they come back year after year. Many of these species spread and reproduce easily, so it is likely that they will fill in the bare spots relatively quickly in the first few years. However, if you want a fuller, denser appearance when your garden is first installed, you may want to add additional small shrubs and herbaceous plants to fill in any gaps. Planting more densely minimizes weeding and can improve soil porosity, composition, and texture. Herbaceous plants can be moved to other locations or thinned as they mature.



Herbaceous plants, like wildflowers, and grasses, add color and attract birds, butterflies, and other pollinators.

**Plan 1: 300 SF (Sun)  
Fall Glory Cluster Garden**

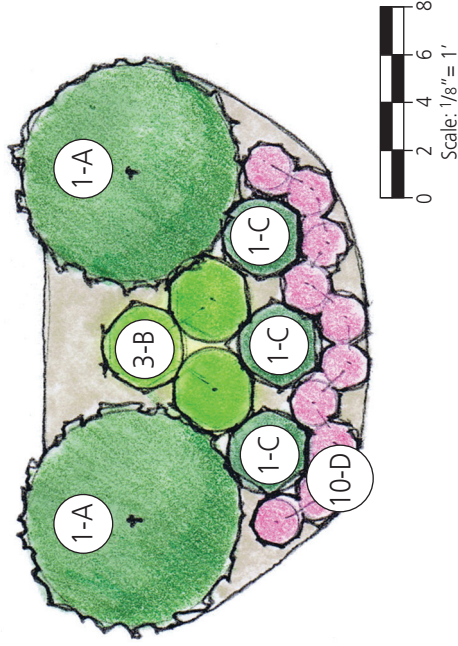
This small cluster garden has excellent value for wildlife and beautiful fall color.



Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Red Maple	<i>Acer rubrum</i>	¾-inch caliper	Canopy tree	1	N/A
B	Virginia Sweetspire	<i>Itea virginica</i>	3 feet	Large shrub	3	N/A
C	Butterfly Flower	<i>Asclepias tuberosa</i>	1 quart	Herbaceous plant	12	N/A
<b>Actual Total Credit: 300 SF</b>						
Notes: Cluster plantings are designed to be grouped together so credit is given for the cluster as a whole. Butterfly Flower has brilliant orange blooms and grows well in sun or partial shade.						

**Plan 2: 350 SF (Shade)  
Spring Beauty Cluster Garden**

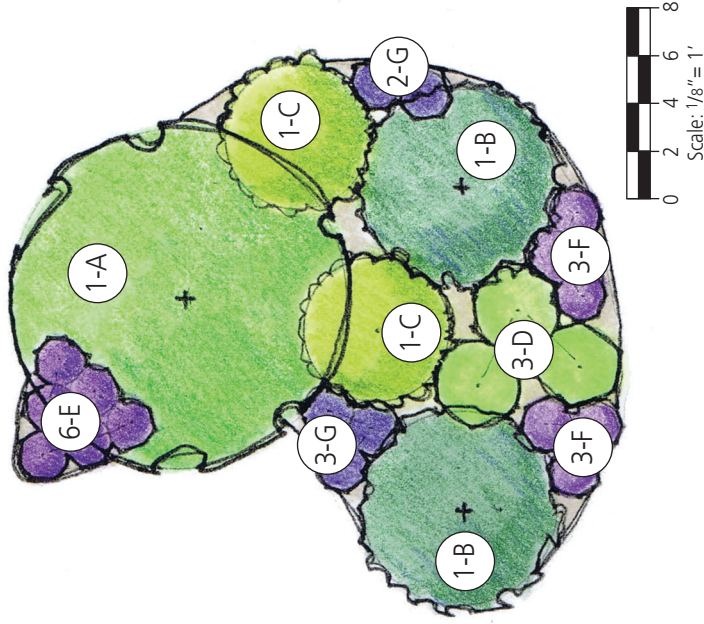
This small cluster garden has beautiful pinkish purple color in the spring, and the American Beautyberry shrubs have royal purple berries in early fall.



Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Eastern Redbud	<i>Cercis canadensis</i>	3/4-inch caliper	Understory tree	2	N/A
B	American Beautyberry	<i>Callicarpa americana</i>	18 inches	Small shrub	3	N/A
C	Pink Azalea	<i>Rhododendron periclymenoides</i>	18 inches	Small shrub	3	N/A
D	Wild Geranium	<i>Geranium maculatum</i>	1 quart	Herbaceous plant	10	N/A
<b>Actual Total Credit: 350 SF</b>						
Notes: Cluster plantings are designed to be grouped together so credit is given for the cluster as a whole. Native azaleas are required in order to receive credit for Buffer planting. If native azalea species are not readily available, they can be replaced with Steeplebush ( <i>Spiraea tomentosa</i> ).						

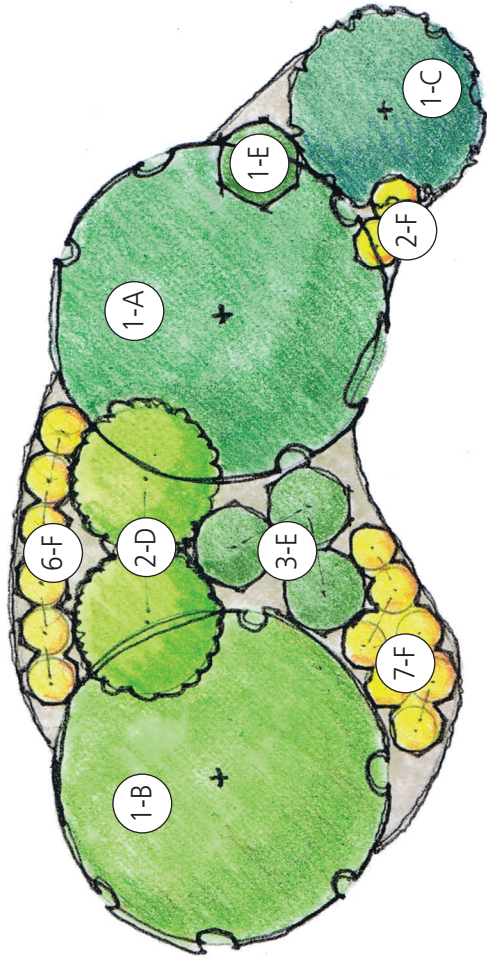
### Plan 3: 450 SF (Low-lying) Violet Mist Garden

This small garden works well in low-lying or wet areas and can be planted near a drainage swale or low spot. The plants in this garden thrive in moist soils, and the pink and purple flowers of the herbaceous plants make a beautiful contrast to the dark foliage of the trees and shrubs.



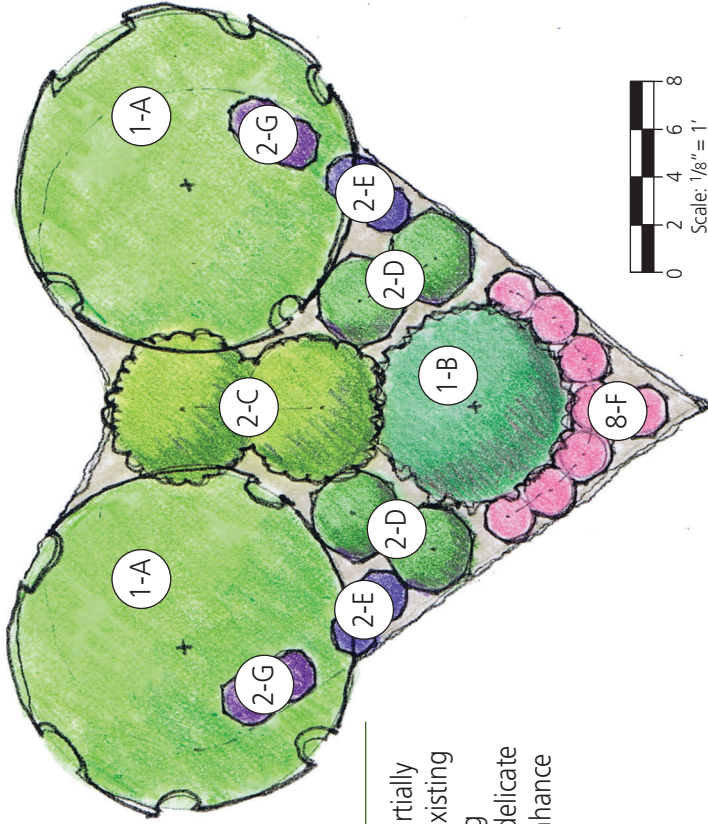
Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	River Birch	<i>Betula nigra</i>	¾-inch caliper	Canopy tree	1	100
B	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	2	150
C	Red Chokeberry	<i>Photinia pyrifolia</i>	3 feet	Large shrub	2	100
D	Sheep Laurel	<i>Kalmia angustifolia</i>	18 inches	Small shrub	3	75
E	Virginia Spiderwort	<i>Tradescantia virginiana</i>	1 quart	Herbaceous plant	6	12
F	New England Aster	<i>Symphotrichum novae-angliae</i>	1 quart	Herbaceous plant	6	12
G	Helmet Flower	<i>Scutellaria integrifolia</i>	1 quart	Herbaceous plant	5	10
<b>Actual Total Credit: 459 SF</b>						

Notes: Passionflower (*Passiflora incarnata*) is a vine with lovely and unusual purple flowers that can be used as a spreading plant in place of some of the herbaceous plants. Blue-eyed grass (*Sisyrinchium angustifolium*) is another blue flowering alternative to the herbaceous plants.



**Plan 4: 500 SF (Sun)  
Golden Sunshine Garden**  
This small garden has a variety of species with a focus on gold and yellow colors and a variety of leaf sizes, shapes, and textures.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Southern Red Oak	<i>Quercus falcata</i>	¾-inch caliper	Canopy tree	1	100
B	American Beech	<i>Fagus grandifolia</i>	¾-inch caliper	Canopy tree	1	100
C	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	1	75
D	Red Chokeberry	<i>Photinia pyrifolia</i>	3 feet	Large shrub	2	100
E	Maple-leaved Arrowwood	<i>Viburnum acerifolium</i>	18 inches	Small shrub	4	100
F	Black-eyed Susan	<i>Rudbeckia hirta</i>	1 quart	Herbaceous plant	15	30
<b>Actual Total Credit: 505 SF</b>						
Notes: Replace some of the Black-eyed Susans with Beebalm ( <i>Monarda didyma</i> ), Wood Lily ( <i>Lilium philadelphicum</i> ), or Butterfly Flower ( <i>Asclepias tuberosa</i> ) for some bright red and orange color.						



**Plan 5: 500 SF (Shade)  
Hearts and Flowers Garden**

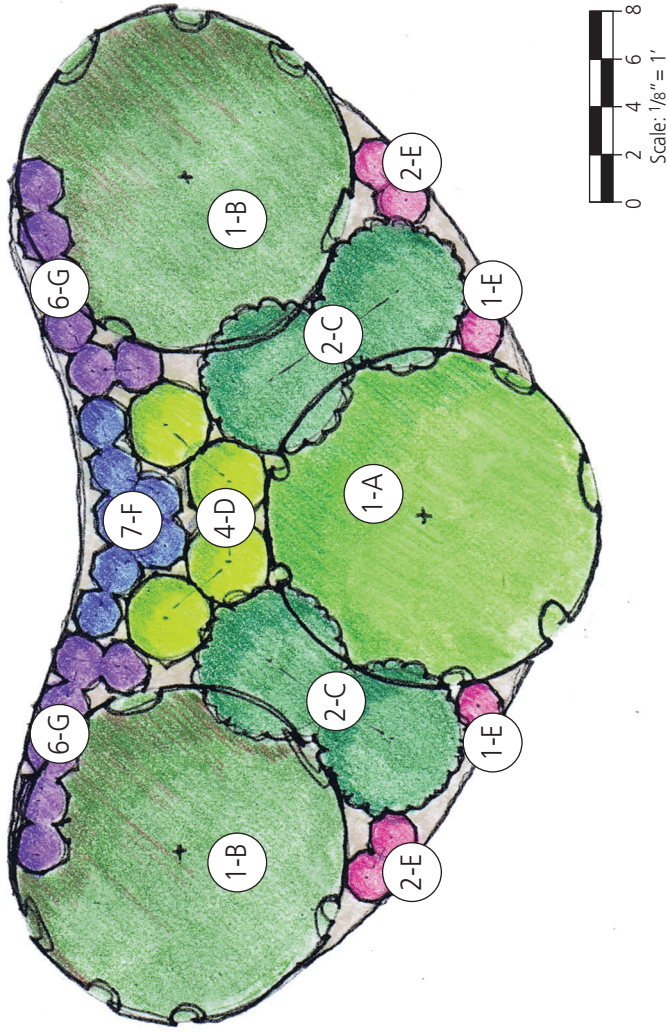
This garden works well in areas that are partially shaded and can be easily integrated with existing large canopy trees. The beautiful branching structure, lovely heart-shaped leaves, and delicate pinkish to purple blooms of the Redbud enhance the beauty of existing wooded areas.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Flowering Dogwood	<i>Cornus florida</i>	¾-inch caliper	Canopy tree	2	200
B	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	1	75
C	Silky Dogwood	<i>Cornus amomum</i>	3 feet	Large shrub	2	100
D	Black Huckleberry	<i>Gaylussacia baccata</i>	18 inches	Small shrub	4	100
E	Meadow Phlox	<i>Phlox maculata</i>	1 quart	Herbaceous plant	4	8
F	Sundial Lupine	<i>Lupinus perennis</i>	1 quart	Herbaceous plant	8	16
G	Gayfeather	<i>Liatris spicata</i>	1 quart	Herbaceous plant	4	8
<b>Actual Total Credit: 507 SF</b>						
Notes: This garden works best in areas that are not exposed to extreme sun or wind and where there are already some existing canopy species.						



### Plan 6: 650 SF (Wet) Turtles Repose Garden

The plants in this garden grow well in moist areas. Turtles are attracted to moist shady areas because these environments help them to regulate their body temperature. Turtles benefit from natural leaf mulch, so leaving this garden "natural" in the fall will provide the best turtle habitat in the spring and summer.

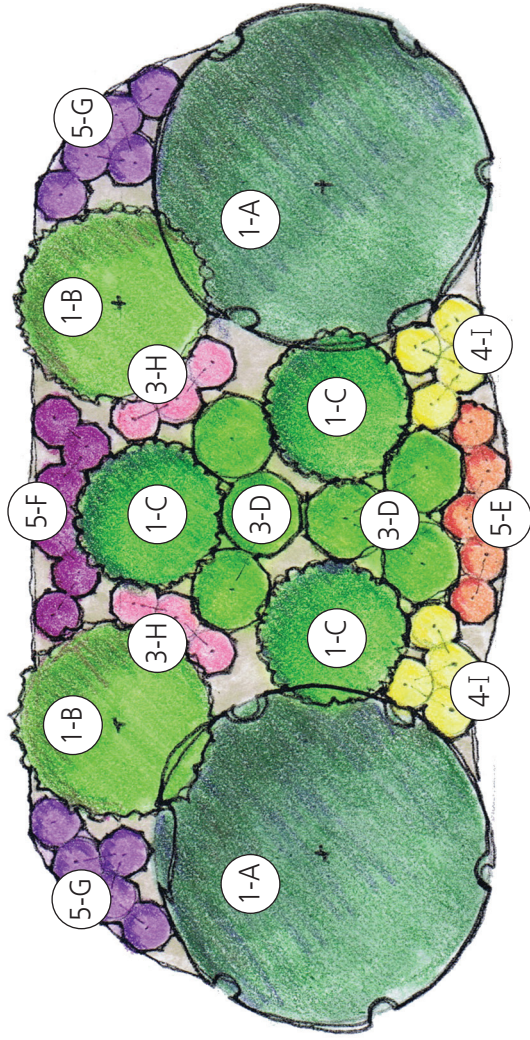


Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	American Sycamore	<i>Platanus occidentalis</i>	¾-inch caliper	Canopy tree	1	100
B	Red Maple	<i>Acer rubrum</i>	¾-inch caliper	Canopy tree	2	200
C	Winterberry	<i>Ilex verticillata</i>	3 feet	Large shrub	4	200
D	Lowbush Blueberry	<i>Vaccinium angustifolium</i>	18 inches	Small shrub	4	100
E	Wild Geranium	<i>Geranium maculatum</i>	1 quart	Herbaceous plant	6	12
F	False Blue Indigo	<i>Baptisia australis</i>	1 quart	Herbaceous plant	7	14
G	Virginia Spiderwort	<i>Tradescantia virginiana</i>	1 quart	Herbaceous plant	12	24
<b>Actual Total Credit: 650 SF</b>						

Notes: Add one Red Maple to increase the credit of this garden to 750 square feet or add two to increase it to 850 square feet. An alternative to False Blue Indigo is Virginia Bluebells (*Mertensia virginica*), which may bloom more in shady conditions.

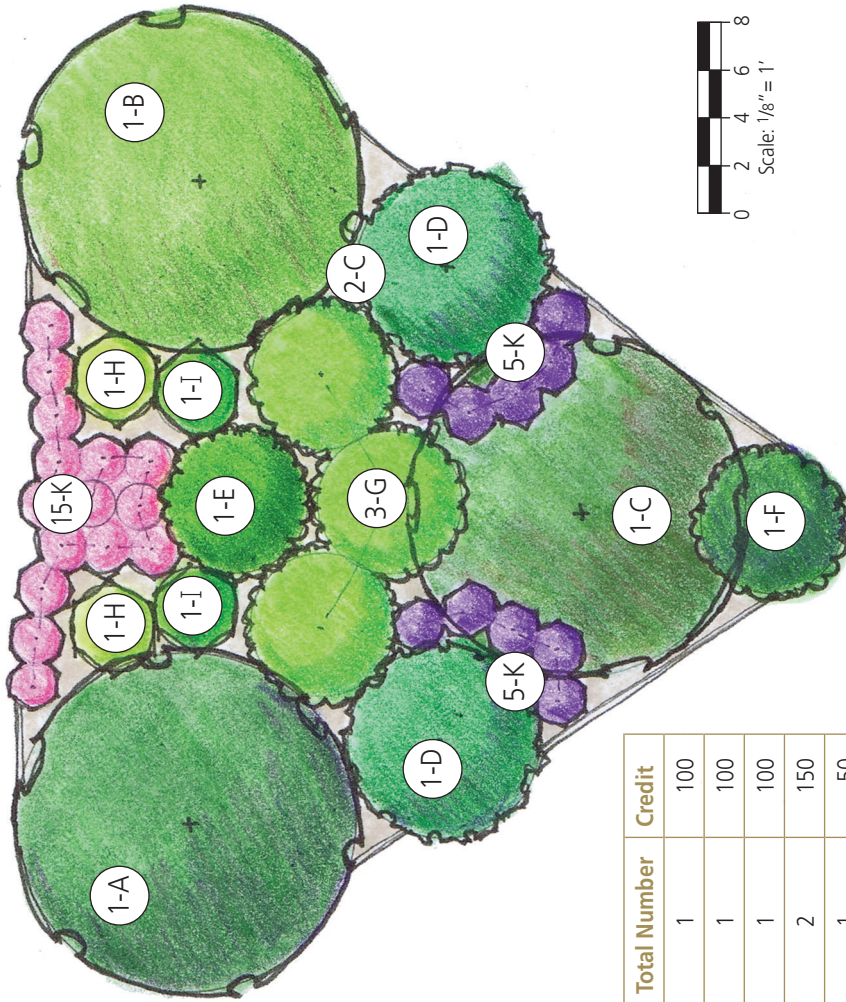
### Plan 7: 700 SF (Partial to Full Sun) Sweet Sensations Butterfly Garden

This garden will bring a variety of butterflies to your yard, as well as provide beautiful flowers throughout the spring and summer. The mix of colors, shapes, and sizes of the flowers, and the long blooming time of these hardy perennials, will enhance any Buffer area.



Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Chestnut Oak	<i>Quercus prinus</i>	¾-inch caliper	Canopy tree	2	200
B	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	2	150
C	Sweet Pepperbush	<i>Clethra alnifolia</i>	3 feet	Large shrub	3	150
D	Dense St. John's Wort	<i>Hypericum densifolium</i>	18 inches	Small shrub	6	150
E	Butterfly Flower	<i>Asclepias tuberosa</i>	1 quart	Herbaceous plant	5	10
F	Summer Phlox	<i>Phlox paniculata</i>	1 quart	Herbaceous plant	5	10
G	Stiff-leaf Aster	<i>Ionactis linariifolius</i>	1 quart	Herbaceous plant	10	20
H	Joe-Pye Weed	<i>Eupatorium dubium</i>	1 quart	Herbaceous plant	6	12
I	Tall Coreopsis	<i>Coreopsis tripteris</i>	1 quart	Herbaceous plant	8	16
<b>Actual Total Credit: 718 SF</b>						

Notes: Add one Flowering Dogwood (*Cornus florida*) to increase the credit of this garden to 800 square feet. Eastern Redbuds and Flowering Dogwoods bloom in mid- to late spring.



**Plan 8: 850 SF (Sun)  
Rabbit's Fancy Garden**

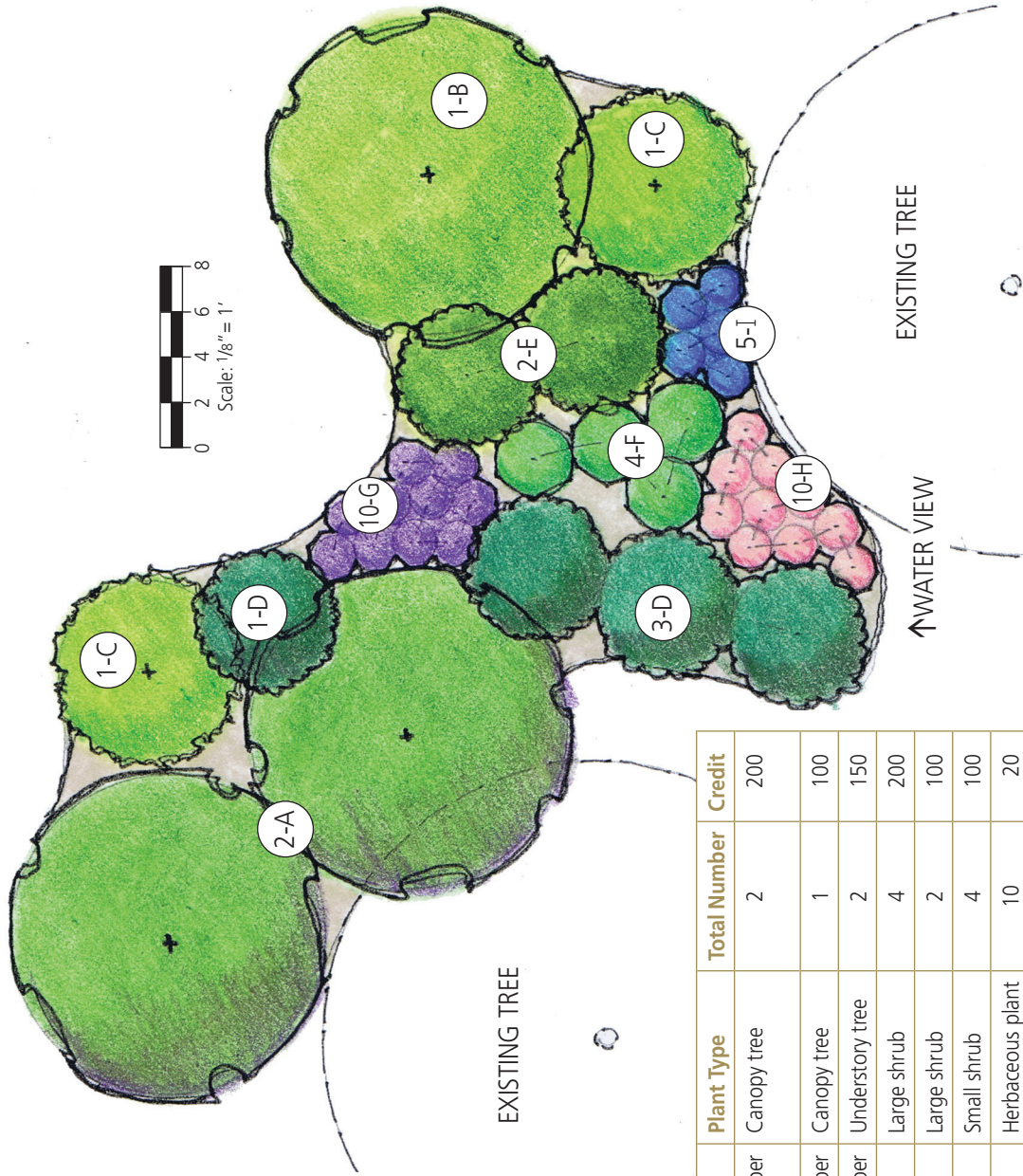
This compact garden includes a variety of plants with unique bark textures and branching patterns. The mix of canopy and understory trees combined with the large and small shrubs provide good and varied structure, which attracts birds and wildlife. The mix of colors and shapes add visual interest and work well in an existing lawn area or adjacent to existing woodlands.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Southern Red Oak	<i>Quercus falcata</i>	¾-inch caliper	Canopy tree	1	100
B	Willow Oak	<i>Quercus phellos</i>	¾-inch caliper	Canopy tree	1	100
C	Shagbark Hickory	<i>Carya ovata</i>	¾-inch caliper	Canopy tree	1	100
D	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	2	150
E	Southern Arrowwood	<i>Viburnum dentatum</i>	3 feet	Large shrub	1	50
F	Silky Dogwood	<i>Cornus amomum</i>	3 feet	Large shrub	1	50
G	Inkberry	<i>Ilex glabra</i>	3 feet	Large shrub	3	150
H	Maple-leaved Arrowwood	<i>Viburnum acerifolium</i>	18 inches	Small shrub	2	50
I	Lowbush Blueberry	<i>Vaccinium angustifolium</i>	18 inches	Small shrub	2	50
J	Plains Blazing Star	<i>Liatris squarrosa</i>	1 quart	Herbaceous plant	10	20
K	Summer Phlox	<i>Phlox paniculata</i>	1 quart	Herbaceous plant	15	30
<b>Actual Total Credit: 850 SF</b>						

Notes: Add another Southern Red Oak to increase credit to 950 square feet. Add the Oak and a second Willow Oak for 1,050 square feet. Dense St. John's Wort (*Hypericum densiflorum*) is a small shrub that can work well as a groundcover. It spreads easily and has bright yellow flowers.

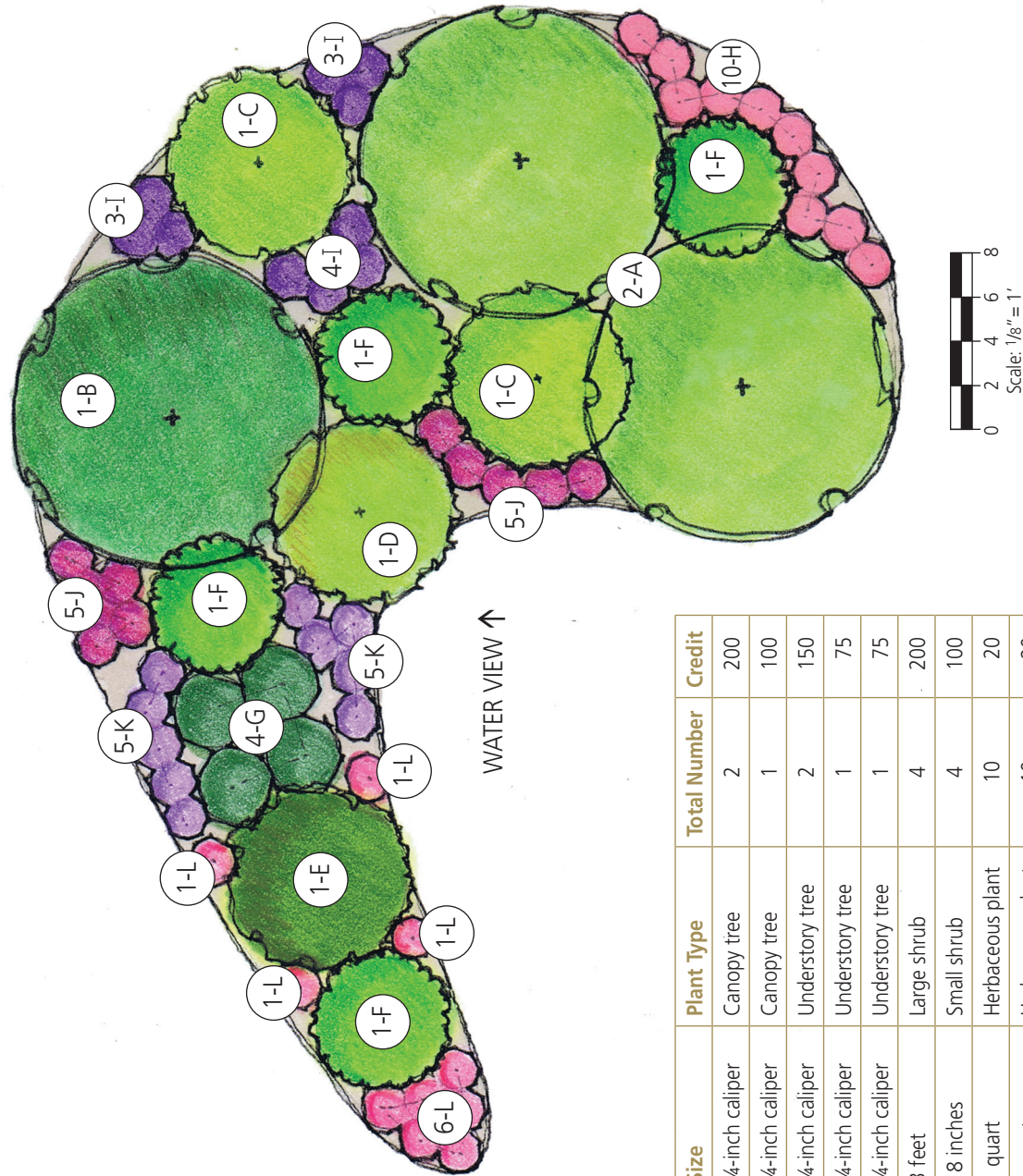
### Plan 9: 900 SF (Shade) Twilight Retreat Garden

This small garden is designed for shady places, and it can be planted in areas where there may be existing large trees. The trees and shrubs in this garden work well together and provide a mix of blue and purple color. The berries on the shrubs attract birds and wildlife. The hardy shrubs can be pruned to maintain their size and shape. This garden works well in areas where you may want to maintain a view of the water.



Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Shadbush	<i>Amelanchier canadensis</i>	¾-inch caliper	Canopy tree	2	200
B	Common Hackberry	<i>Celtis occidentalis</i>	¾-inch caliper	Canopy tree	1	100
C	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	2	150
D	Southern Bayberry	<i>Morella pensylvanica</i>	3 feet	Large shrub	4	200
E	Beach Plum	<i>Prunus maritima</i>	3 feet	Large shrub	2	100
F	American Beautyberry	<i>Callicarpa americana</i>	18 inches	Small shrub	4	100
G	Virginia Spiderwort	<i>Tradescantia virginiana</i>	1 quart	Herbaceous plant	10	20
H	Virginia Waterleaf	<i>Hydrophyllum virginianum</i>	1 quart	Herbaceous plant	10	20
I	Sundial Lupine	<i>Lupinus perennis</i>	1 quart	Herbaceous plant	5	10
<b>Actual Total Credit: 900 SF</b>						

Notes: Add another Shadbush to increase credit to 1000 square feet or add two Eastern Redbud for 1050 square feet. All of the shrub species can be pruned. Pruning should not exceed 25% of the overall shrub size.



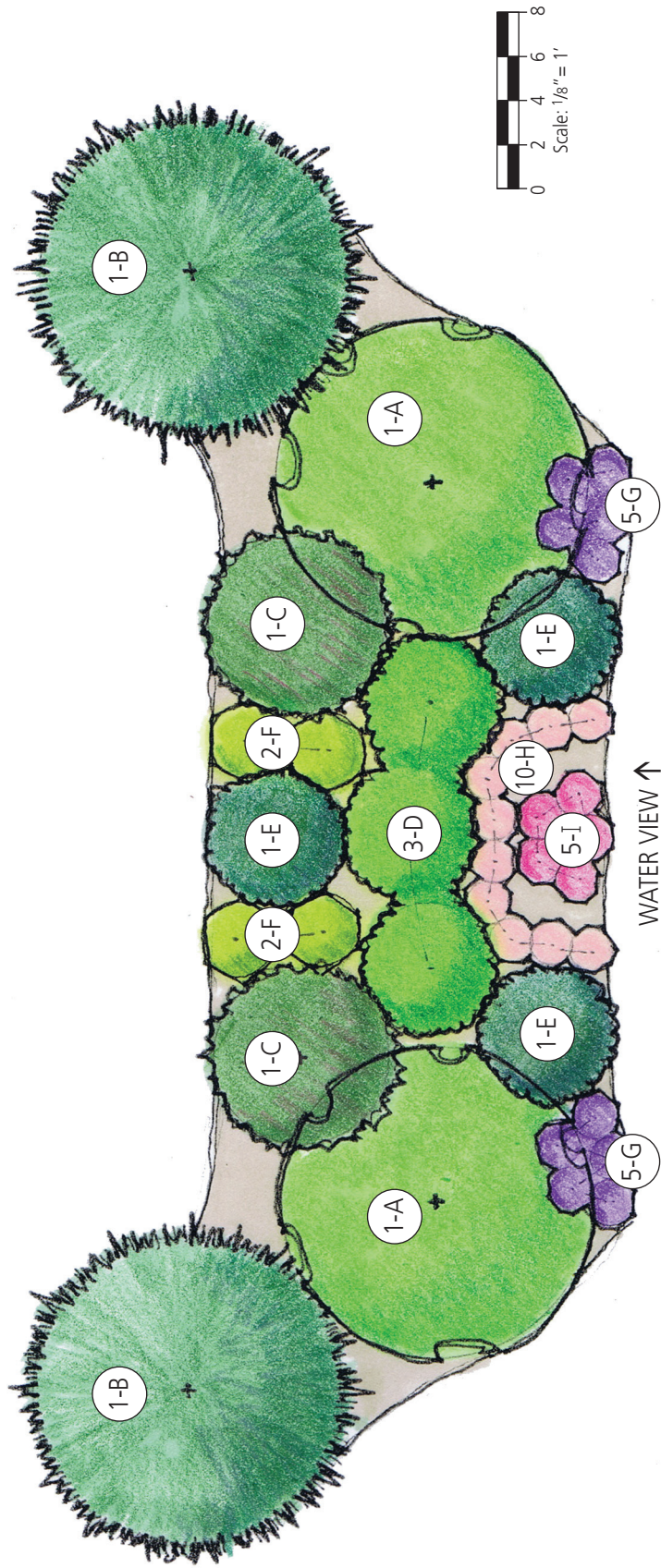
**Plan 10: 1000 SF (Dry)  
Burst of Color Garden**

This garden uses a varied mix of plant species to add texture and color. The use of evergreen and deciduous shrubs provides important cover throughout the year, and the berries add color and interest. The herbaceous plants provide a dramatic burst of color with various species blooming throughout the spring and summer months.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Red Maple	<i>Acer rubrum</i>	3/4-inch caliper	Canopy tree	2	200
B	Common Hackberry	<i>Celtis occidentalis</i>	3/4-inch caliper	Canopy tree	1	100
C	Sweetbay Magnolia	<i>Magnolia virginiana</i>	3/4-inch caliper	Understory tree	2	150
D	Eastern Redbud	<i>Cercis canadensis</i>	3/4-inch caliper	Understory tree	1	75
E	American Crabapple	<i>Malus coronaria</i>	3/4-inch caliper	Understory tree	1	75
F	Inkberry	<i>Ilex glabra</i>	3 feet	Large shrub	4	200
G	Black Chokeberry	<i>Photinia melanocarpa</i>	18 inches	Small shrub	4	100
H	Meadow Phlox	<i>Phlox maculata</i>	1 quart	Herbaceous plant	10	20
I	Smooth Blue Aster	<i>Aster laevis</i>	1 quart	Herbaceous plant	10	20
J	New York Ironweed	<i>Vernonia noveboracensis</i>	1 quart	Herbaceous plant	10	20
K	Gayfeather	<i>Liatris spicata</i>	1 quart	Herbaceous plant	10	20
L	Wild Bergamot	<i>Monarda bradburiana</i>	1 quart	Herbaceous plant	10	20

**Actual Total Credit: 1000 SF**

Notes: Herbaceous plants can be grouped together to provide dramatic bursts of color or spread out to provide better ground coverage. Most native herbaceous plants spread and multiply easily and can be divided and used in other areas or to fill in barer spots.

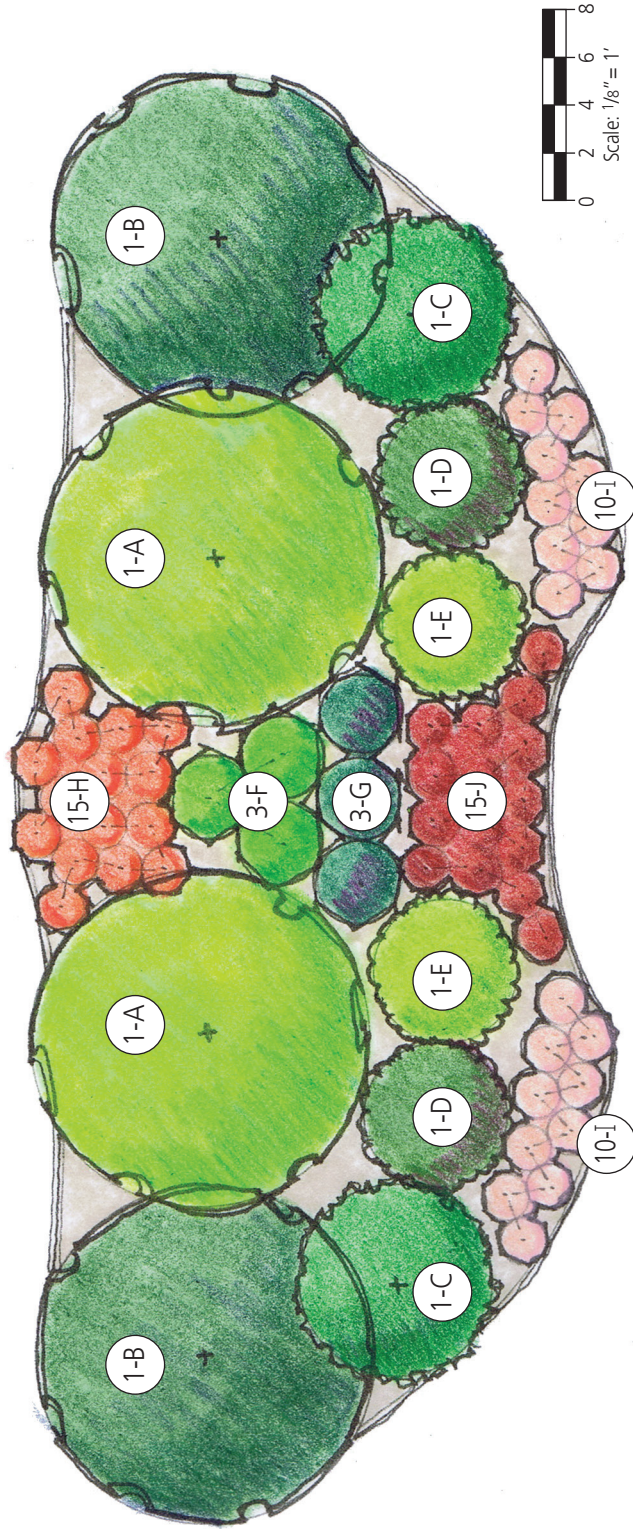


### Plan 11: 1000 SF (Shade) Riverside Refuge Garden

This garden includes an interesting mix of colors and textures, and the selected species do well in moist and shady conditions. Atlantic White Cedar is an evergreen tree with somewhat feathery blue-green foliage that provides a nice backdrop for the delicate white flowers of the Gray Dogwood and Sweet Pepperbush.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Water Oak	<i>Quercus nigra</i>	¾-inch caliper	Canopy tree	2	200
B	Atlantic White Cedar	<i>Chamaecyparis thyoides</i>	¾-inch caliper	Canopy tree	2	200
C	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	2	150
D	Gray Dogwood	<i>Cornus racemosa</i>	3 feet	Large shrub	3	150
E	Sweet Pepperbush	<i>Clethra alnifolia</i>	3 feet	Large shrub	3	150
F	Black Huckleberry	<i>Gaylussacia baccata</i>	18 inches	Small shrub	4	100
G	Virginia Spiderwort	<i>Tradescantia virginiana</i>	1 quart	Herbaceous plant	10	20
H	Foamflower	<i>Tiarella cordifolia</i>	1 quart	Herbaceous plant	10	20
I	Common Marsh-pink	<i>Sabatia angularis</i>	1 quart	Herbaceous plant	5	10
<b>Actual Total Credit: 1000 SF</b>						

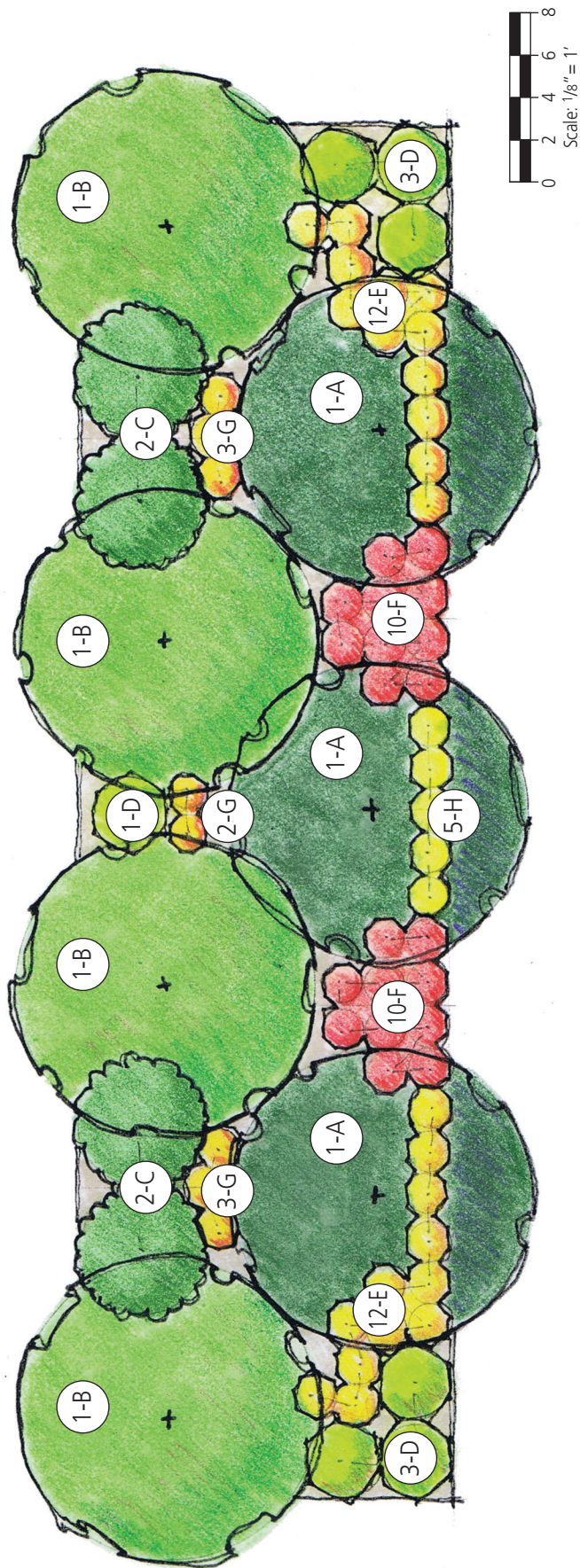
Notes: The Atlantic White Cedars can be replaced with Eastern Red Cedars (*Juniperus virginiana*) or Virginia Pines (*Pinus virginiana*). Evergreen species are important for wildlife as they provide cover and protection during the winter months.



**Plan 12: 1000 SF (Partial to Full Sun)  
Hummingbirds' Delight Garden**

This garden is designed for sunny or partially sunny areas and includes species that are known to attract a variety of birds and butterflies. This garden can play an important role in preserving native plants by attracting pollinators. Pollinators are species that fertilize plants while moving from flower to flower in search of nectar, pollen, or materials to build a nest. Bees, moths, butterflies, and hummingbirds are common pollinators that you may see when you plant this garden.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Red Maple	<i>Acer rubrum</i>	3/4-inch caliper	Canopy tree	2	200
B	Black Gum	<i>Nyssa sylvatica</i>	3/4-inch caliper	Canopy tree	2	200
C	Sweetbay Magnolia	<i>Magnolia virginiana</i>	3/4-inch caliper	Understory tree	2	150
D	Silky Dogwood	<i>Cornus amomum</i>	3 feet	Large shrub	2	100
E	Smooth Winterberry	<i>Ilex laevigata</i>	3 feet	Large shrub	2	100
F	Black Chokeberry	<i>Photinia melanocarpa</i>	18 inches	Small shrub	3	75
G	Steeplebush	<i>Spiraea tomentosa</i>	18 inches	Small shrub	3	75
H	Butterfly Flower	<i>Asclepia tuberosa</i>	1 quart	Herbaceous plant	15	30
I	Wild Bergamot	<i>Monarda bradburiana</i>	1 quart	Herbaceous plant	20	40
J	Beebalm	<i>Monarda didyma</i>	1 quart	Herbaceous plant	15	30
<b>Actual Total Credit: 1000 SF</b>						
Notes: Wood Lily ( <i>Lilium philadelphicum</i> ) is another herbaceous plant that attracts pollinators.						



### Plan 13: 1150 SF (Sun)

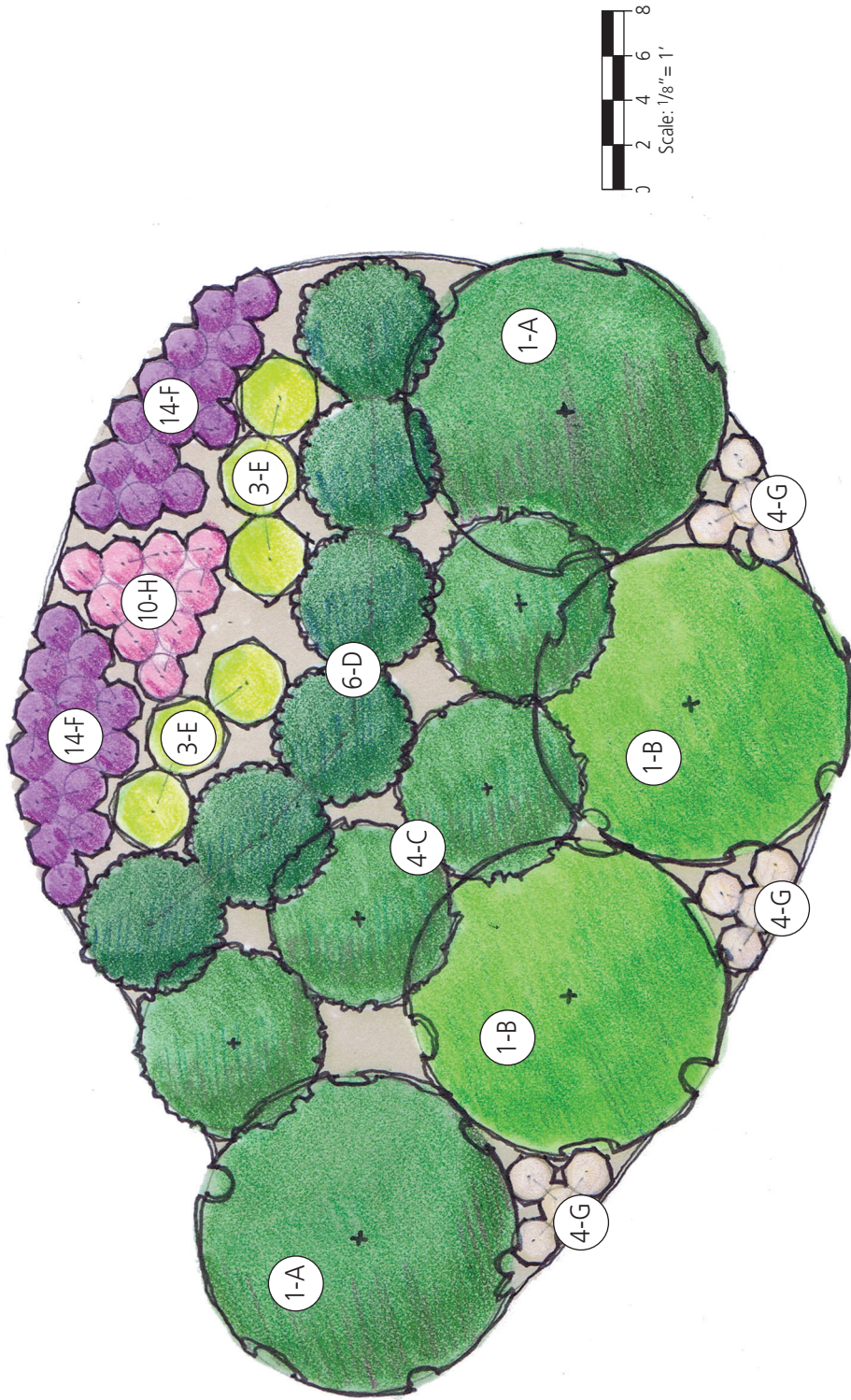
#### Quail's Content Hedgerow Garden

This linear garden is perfect for planting along property lines, lawn edges, fences, or areas adjacent to swales, ditches, or streams. The mix of species provides different levels of vegetation that are desirable to a variety of bird species. The yellow flowers of the Maryland Wild Senna and the orange flowers of the Butterfly Flower are showy and bright and can provide color from May through August.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Willow Oak	<i>Quercus phellos</i>	¾" caliper	Canopy tree	3	300
B	Green Hawthorn	<i>Crataegus viridis</i>	¾" caliper	Canopy tree	4	400
C	Winterberry	<i>Ilex verticillata</i>	3 feet	Large shrub	4	200
D	Dense St. John's Wort	<i>Hypericum densiflorum</i>	18 inches	Small shrub	7	175
E	Maryland Wild Senna	<i>Senna marilandica</i>	1 quart	Herbaceous plant	24	48
F	Butterfly Flower	<i>Asclepias tuberosa</i>	1 quart	Herbaceous plant	20	40
G	Old-Field Goldenrod	<i>Solidago nemoralis</i>	1 quart	Herbaceous plant	8	16
H	Common Sneezeweed	<i>Helenium autumnale</i>	1 quart	Herbaceous plant	5	10
<b>Actual Total Credit: 1189 SF</b>						

Notes: Add four Dangleberry (*Gaylussacia frondosa*) to increase the square footage credit to approximately 1250 square feet and greatly enhance the wildlife value of this garden.





**Plan 14: 1250 SF (Wet or Low Areas)  
Frog's Leap Garden**

This garden is perfect for low-lying or wet areas. The plants prefer moist conditions and can tolerate saturated soils. If you have a low area in your yard or have an area that collects rooftop or driveway runoff, this garden may be perfect for that location. The species and conditions in this garden provide excellent habitat for amphibians, like frogs and salamanders.

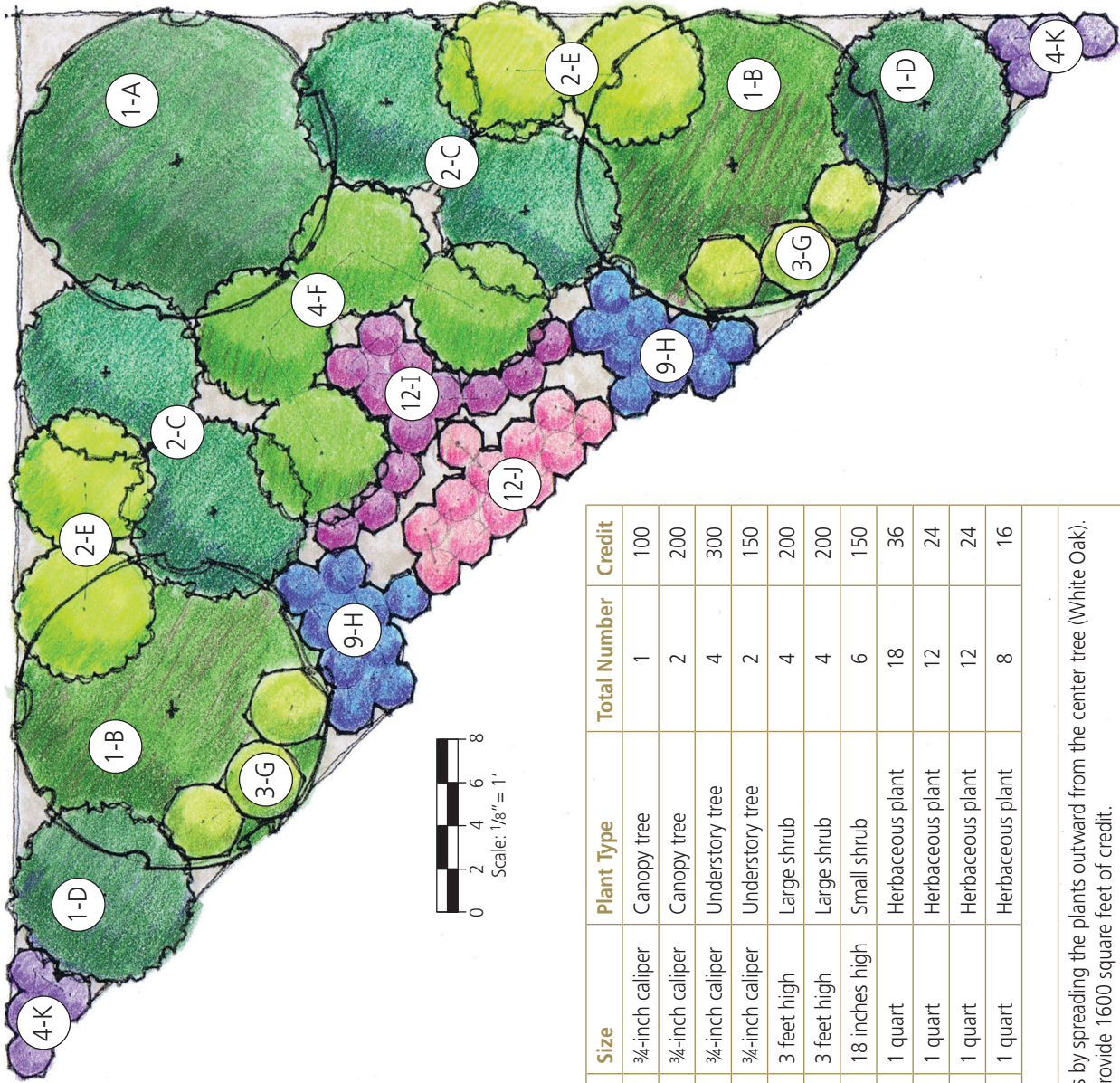
Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	River Birch	<i>Betula nigra</i>	¾-inch caliper	Canopy tree	2	200
B	American Hornbeam	<i>Carpus caroliniana</i>	¾-inch caliper	Canopy tree	2	200
C	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	4	300
D	Sweet Pepperbush	<i>Clethra alnifolia</i>	3 feet	Large shrub	6	300
E	Dangleberry	<i>Gaylussacia frondosa</i>	18 inches	Small shrub	6	150
F	Carolina Wild Petunia	<i>Ruellia caroliniensis</i>	1 quart	Herbaceous plant	28	56
G	Joe-Pye Weed	<i>Eupatorium dubium</i>	1 quart	Herbaceous plant	12	24
H	White Turtlehead	<i>Chelone glabra</i>	1 quart	Herbaceous plant	10	20

**Actual Total Credit: 1250 SF**

Notes: This garden can easily be modified to function as a rain garden by creating a 6- inch to 8- inch depression where the herbaceous plants are located and incorporating herbaceous emergent species (wetland type plants) such as Virginia Blue Flag (*Iris virginica*) and Pickerelweed (*Pontederia cordata*) in the areas where water ponds.

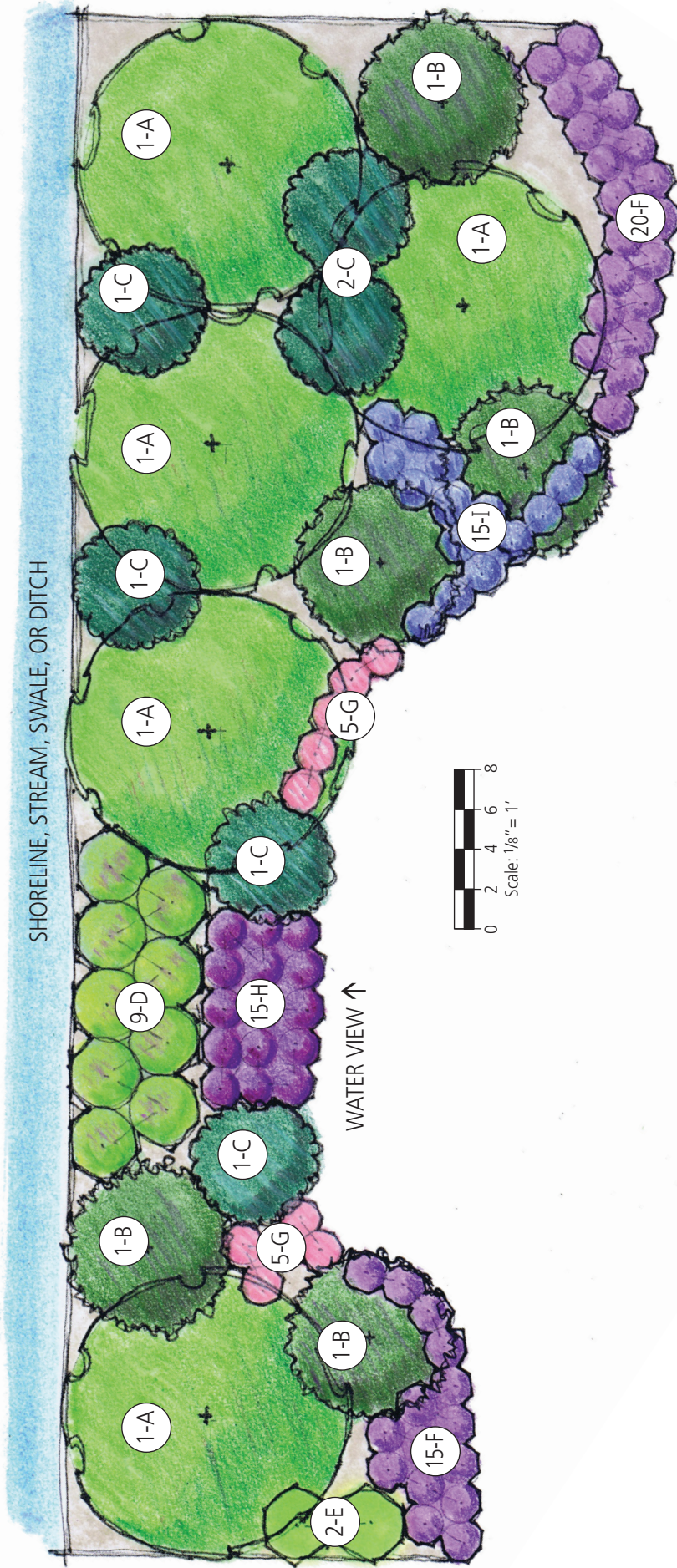
### Plan 15: 1400 SF (Shade) Corner Cottage Garden

This compact corner garden works well in a corner of your property or at the water's edge, and it can also be used to create defined outdoor "spaces" for different activities. The mix of large canopy trees and understory trees can create a shady area for relaxing and eating outdoors. The variety of leaf and branch colors, shapes, and textures will enhance any backyard.



Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	White Oak	<i>Quercus alba</i>	¾-inch caliper	Canopy tree	1	100
B	Serviceberry	<i>Amelanchier canadensis</i>	¾-inch caliper	Canopy tree	2	200
C	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	4	300
D	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	2	150
E	Smooth Winterberry	<i>Ilex laevigata</i>	3 feet high	Large shrub	4	200
F	Silky Dogwood	<i>Cornus amomum</i>	3 feet high	Large shrub	4	200
G	Maple-leaved Arrowwood	<i>Viburnum acerifolium</i>	18 inches high	Small shrub	6	150
H	Heart-leaved Aster	<i>Symphotrichum cordifolium</i>	1 quart	Herbaceous plant	18	36
I	Carolina Wild Petunia	<i>Ruellia caroliniensis</i>	1 quart	Herbaceous plant	12	24
J	Summer Phlox	<i>Phlox paniculata</i>	1 quart	Herbaceous plant	12	24
K	Hedge Nettle	<i>Stachys tenuifolia</i>	1 quart	Herbaceous plant	8	16
<b>Actual Total Credit: 1400 SF</b>						

Notes: This garden can be adjusted to fit a variety of corner locations by spreading the plants outward from the center tree (White Oak). Adding two more White Oaks on either side of the center tree will provide 1600 square feet of credit.



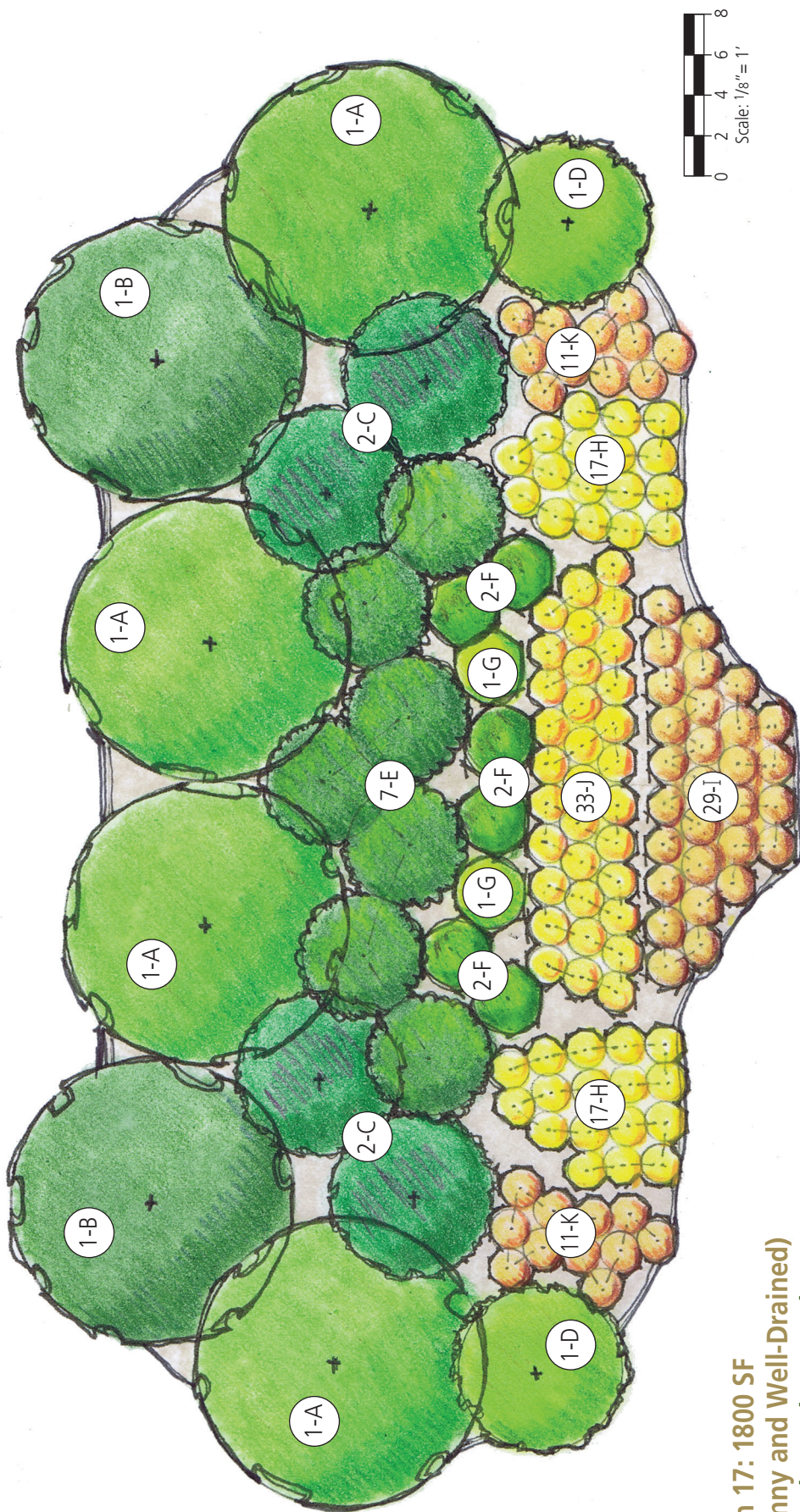
**Plan 16: 1600 SF (Sun)  
Bountiful Border Garden**

This linear garden makes a wonderful border when planted along a shoreline, wetland edge, or stream bank. The varied structure of the species and the use of semi-evergreen and deciduous species provide a variety of benefits including nutrient uptake, soil stabilization, and enhanced infiltration of stormwater. This border garden can also be planted adjacent to a swale or ditch, which can help to stabilize the drainageway, reduce flooding, and filter sediment and debris.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	American Beech	<i>Fagus grandifolia</i>	¾-inch caliper	Canopy tree	5	500
B	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	5	375
C	Inkberry	<i>Ilex glabra</i>	3 feet	Large shrub	6	300
D	Sheep Laurel	<i>Kalmus angustifolia</i>	18 inches	Small shrub	9	225
E	Lowbush Blueberry	<i>Vaccinium angustifolium</i>	18 inches	Small shrub	2	50
F	New England Aster	<i>Symphotrichum novae-angliae</i>	1 quart	Herbaceous plant	35	70
G	Narrow-leaved Mountain Mint	<i>Pycnanthemum tenuifolium</i>	1 quart	Herbaceous plant	10	20
H	Gayfeather	<i>Liatris spicata</i>	1 quart	Herbaceous plant	15	30
I	False Blue Indigo	<i>Baptisia australis</i>	1 quart	Herbaceous plant	15	30

**Actual Total Credit: 1600 SF**

Notes: If the area to be planted stays moist or wet or can be watered easily, native iris species including Blue Flag Iris (*Iris versicolor*), Slender Blue Flag (*Iris prismatica*), and Virginia Blue Flag (*Iris virginica*) can survive in fresh to moderately brackish areas. If the area to be planted is along a shoreline and is regularly exposed to salt water, replace the American Beech with Red Maple (*Acer rubrum*) and five of the Sheep Laurel (at the shoreline) with Southern Bayberry. This will increase the credit to 1725 square feet.



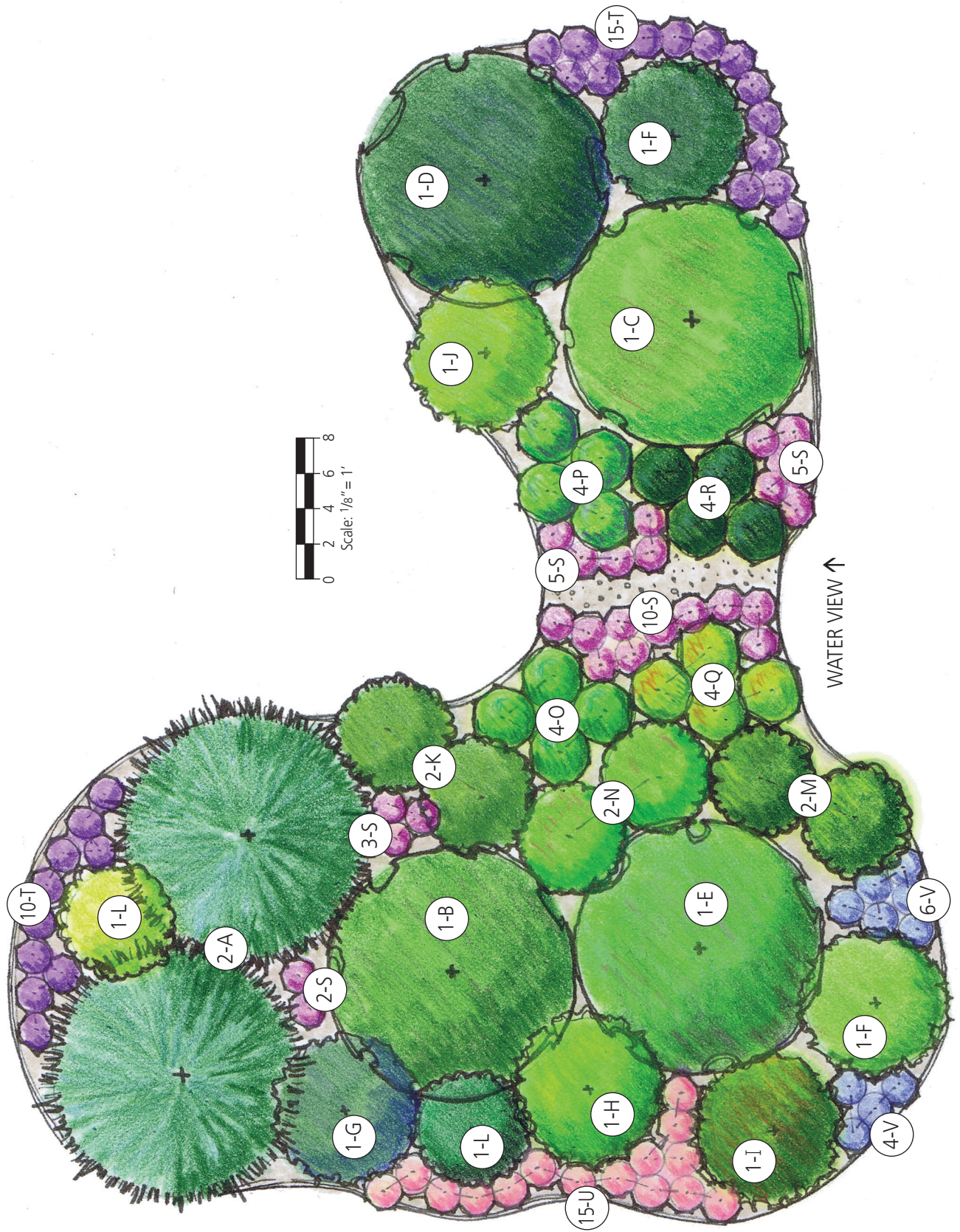
### Plan 17: 1800 SF (Sunny and Well-Drained) Mixed Meadow Garden

Planting a Buffer garden in drier, sunny areas that have well-drained soils provides opportunities to use a variety of grasses that are attractive because of the unique and varied texture and their different appearance in the fall and winter. Because many grasses grow in clumps, this garden also creates habitat for species that tend to prefer dense meadow cover. Native grasses provide significant water quality benefits because of their deep and fibrous root systems that take up nutrients and stabilize soil. Turf grass does not provide these benefits because of its small, fine stems and shallow root system.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Southern Red Oak	<i>Quercus falcata</i>	¾-inch caliper	Canopy tree	4	400
B	Common Persimmon	<i>Diospyros virginiana</i>	¾-inch caliper	Canopy tree	2	200
C	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	4	300
D	White Fringetree	<i>Chionanthus virginicus</i>	¾-inch caliper	Understory tree	2	150
E	Southern Bayberry	<i>Morella cerifera</i>	3 feet	Large shrub	7	350
F	Deerberry	<i>Vaccinium stamineum</i>	3 feet	Small shrub	6	150
G	Steeplebush	<i>Spiraea tomentosa</i>	18 inches	Small shrub	2	50
H	Big Bluestem	<i>Andropogon gerardii</i>	1 quart	Grass	34	68
I	Broomsedge	<i>Andropogon virginicus</i>	1 quart	Grass	29	58
J	Redtop	<i>Tridens flavus</i>	1 quart	Grass	33	66
K	Little Bluestem	<i>Andropogon scoparius</i>	1 quart	Grass	22	44

#### Actual Total Credit: 1836 SF

Notes: If you want a mix of flowers and grasses, replace some of the grasses with sun-loving herbaceous plants that do well in field environments, such as Black-eyed Susans (*Rudbeckia hirta*), Wild Bergamot (*Monarda bradburiana*), or Plains Blazing Star (*Liatris squarrosa*).



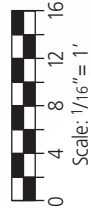
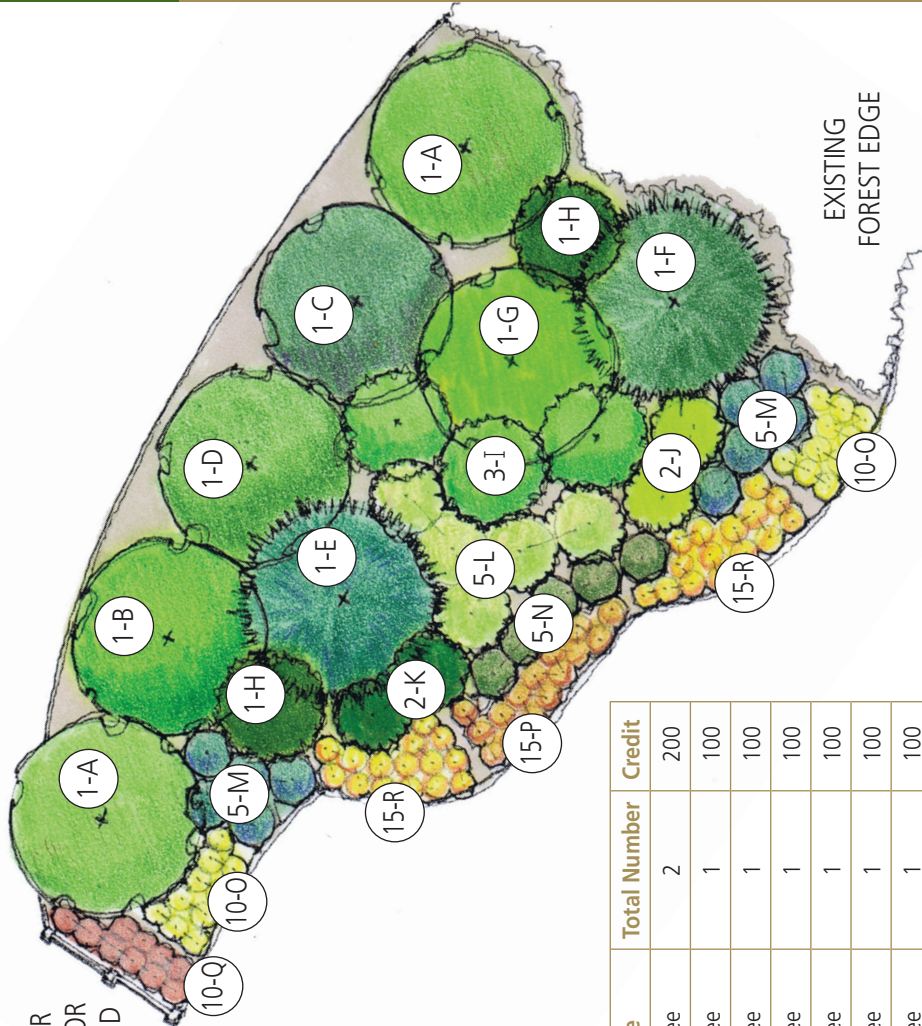
### Plan 18: 2000 SF (Shoreline Sun) Four Seasons Garden

This garden is designed to have blooms and berries along with varied leaf colors and textures throughout the year. A wide variety of species and plant types were selected so that each season presents different focal points. Several of the tree species have interesting bark colors and textures, and the Eastern Red Cedars are evergreen with dark needles. Eastern Red Cedars also produce pale green to dark blue berries and adapt well to a variety of growing conditions. Many of the species bloom in the spring, and others produce berries in late summer and fall.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Eastern Red Cedar	<i>Juniperus virginiana</i>	¾-inch caliper	Canopy tree	2	200
B	American Sycamore	<i>Platanus occidentalis</i>	¾-inch caliper	Canopy tree	1	100
C	Flowering Dogwood	<i>Cornus florida</i>	¾-inch caliper	Canopy tree	1	100
D	River Birch	<i>Betula nigra</i>	¾-inch caliper	Canopy tree	1	100
E	Red Maple	<i>Acer rubrum</i>	¾-inch caliper	Canopy tree	1	100
F	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	2	150
G	Paw-paw	<i>Asimina triloba</i>	¾-inch caliper	Understory tree	1	75
H	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	1	75
I	White Fringetree	<i>Chionanthus virginicus</i>	¾-inch caliper	Understory tree	1	75
J	American Crabapple	<i>Malus coronaria</i>	¾-inch caliper	Understory tree	1	75
K	Naked Witherod	<i>Viburnum nudum</i>	3 feet	Large shrub	2	100
L	Southern Bayberry	<i>Morella carolinensis</i>	3 feet	Large shrub	2	100
M	Smooth Sumac	<i>Rhus glabra</i>	3 feet	Large shrub	2	100
N	Deerberry	<i>Vaccinium stamineum</i>	3 feet	Large shrub	2	100
O	American Beautyberry	<i>Callicarpa americana</i>	18 inches	Small shrub	4	100
P	Black Chokeberry	<i>Photinia melanocarpa</i>	18 inches	Small shrub	4	100
Q	Maple-leaved Arrowwood	<i>Viburnum acerifolium</i>	18 inches	Small shrub	4	100
R	New Jersey Tea	<i>Ceanothus americanus</i>	18 inches	Small shrub	4	100
S	New England Aster	<i>Symphotrichum novae-angliae</i>	1 quart	Herbaceous plant	25	50
T	Helmet Flower	<i>Scutellaria integrifolia</i>	1 quart	Herbaceous plant	25	50
U	Narrow-leaved Mountain Mint	<i>Pycnanthemum tenuifolium</i>	1 quart	Herbaceous plant	15	30
V	Beardtongue	<i>Penstemon digitalis</i>	1 quart	Herbaceous plant	10	20
<b>Actual Total Credit: 2000 SF</b>						

Notes: If you want a mix of flowers and grasses, replace some of the flowers with shade tolerant grasses such as Virginia Wild Rye (*Elymus virginicus*) or River Oats (*Chasmanthium latifolium*).

FENCE OR  
ARBOR FOR  
VINES AND  
PERCH



### Plan 19: 2150 SF (Mixed Sun and Shade) Songbird Garden

Maryland has a wide variety of native songbirds that rely on forests in the Critical Area. In this garden, the trees are planted next to existing forest to expand the canopy cover. Many songbird species require large expanses of continuous forest to nest and breed. The shrubs, vines, flowers, and grasses provide nesting locations, food, and protection from predators. Different bird species require different types of food at different times, so using a variety of species is important. Fruit and seed bearing trees, shrubs, and herbaceous plants, as well as species that provide winter cover, ensure that this garden provides essential habitat elements all year round.

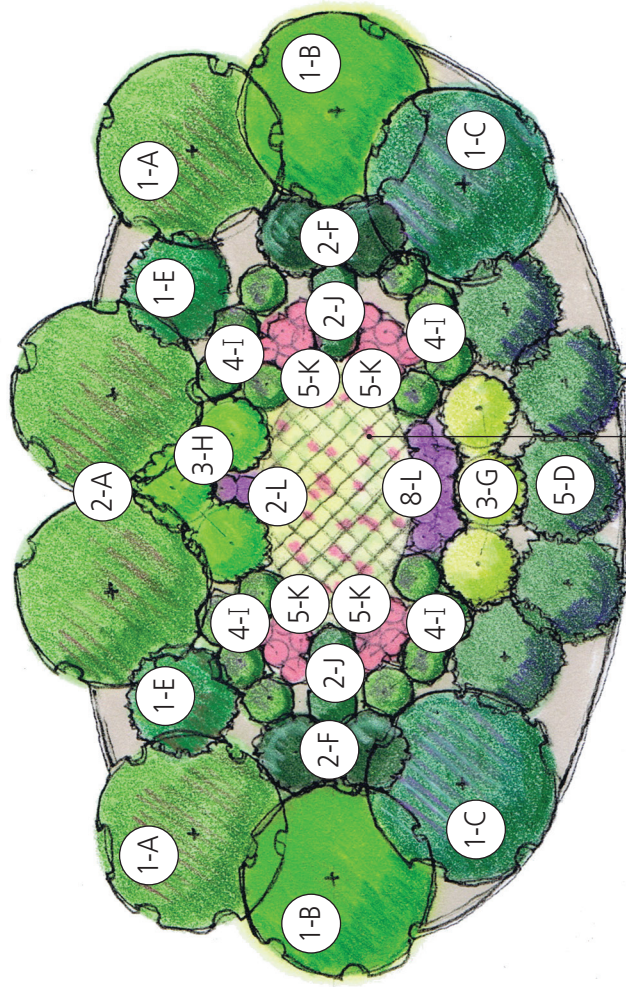
Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Pin Oak	<i>Quercus palustris</i>	¾-inch caliper	Canopy tree	2	200
B	Red Maple	<i>Acer rubrum</i>	¾-inch caliper	Canopy tree	1	100
C	Flowering Dogwood	<i>Cornus florida</i>	¾-inch caliper	Canopy tree	1	100
D	River Birch	<i>Betula nigra</i>	¾-inch caliper	Canopy tree	1	100
E	American Holly	<i>Ilex opaca</i>	¾-inch caliper	Canopy tree	1	100
F	Eastern Red Cedar	<i>Juniperus virginiana</i>	¾-inch caliper	Canopy tree	1	100
G	Shadbush	<i>Amelanchier canadensis</i>	¾-inch caliper	Canopy tree	1	100
H	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	2	150
I	American Crabapple	<i>Malus coronaria</i>	¾-inch caliper	Understory tree	3	225
J	Silky Dogwood	<i>Cornus amomum</i>	3 feet	Large shrub	2	100
K	Highbush Blueberry	<i>Vaccinium corymbosum</i>	3 feet	Large shrub	2	100
L	Black Chokeberry	<i>Aronia melanocarpa</i>	3 feet	Large shrub	5	250
M	Dense St. John's Wort	<i>Hypericum densifolium</i>	18 inches	Small shrub	10	250
N	Dangleberry	<i>Gaylussacia frondosa</i>	18 inches	Small shrub	5	125
O	Black-eyed Susan	<i>Rudbeckia herta</i>	1 quart	Herbaceous plant	20	40
P	Maryland Wild Senna	<i>Senna marilandica</i>	1 quart	Herbaceous plant	15	30
Q	Trumpet Honeysuckle	<i>Lonicera sempervirens</i>	1 quart	Vine	10	20
R	Switch Grass	<i>Panicum virgatum</i>	1 quart	Grass	30	60

**Actual Total Credit: 2150 SF**

Notes: This garden can work especially well when planted near a fence. The fence provides support for the Trumpet Honeysuckle, which flowers with red to coral and yellow blooms from April through October. The fence also provides a perch for songbirds.

## Plan 20: 2500 SF (Shade and Sun) Secret Grove Garden

This garden is designed to create a small glade of grasses and wildflowers surrounded by deciduous trees and shrubs. This garden includes a variety of tree, shrub, and herbaceous species that attract wildlife. The protected cover around the edges makes the center grassy area ideal for a variety of wildlife species. It is also a lovely area to place a bench to enjoy the tranquil surroundings. You may end up having some visitors.



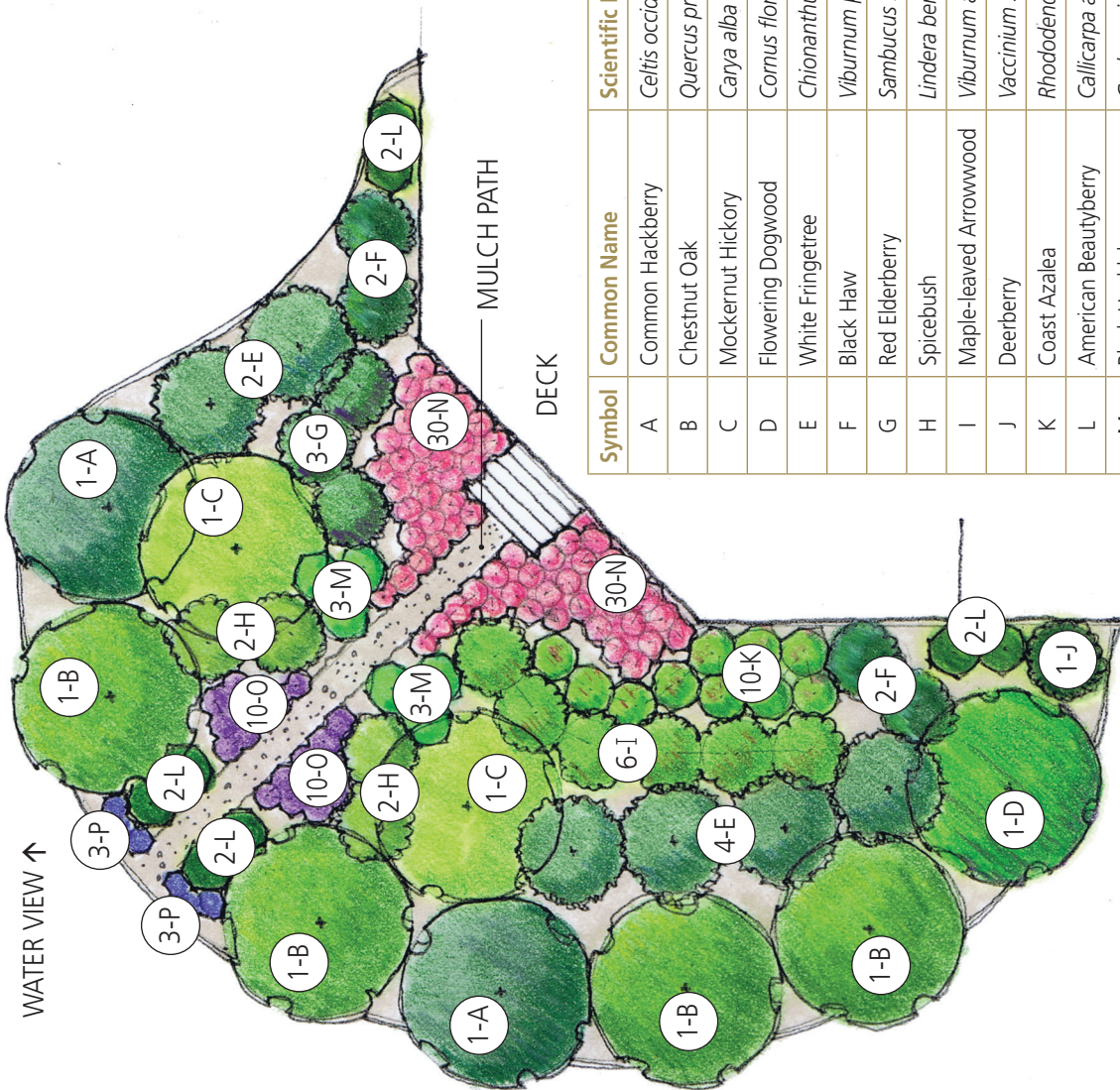
Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Northern Red Oak	<i>Quercus rubra</i>	3/4-inch caliper	Canopy tree	4	400
B	Tulip Poplar	<i>Liriodendron tulipifera</i>	3/4-inch caliper	Canopy tree	2	200
C	American Holly	<i>Ilex opaca</i>	3/4-inch caliper	Canopy tree	2	200
D	Paw-paw	<i>Asimina triloba</i>	3/4-inch caliper	Understory tree	5	375
E	Eastern Redbud	<i>Cercis canadensis</i>	3/4-inch caliper	Understory tree	2	150
F	Inkberry	<i>Ilex glabra</i>	3 feet	Large shrub	4	200
G	Virginia Sweetspire	<i>Itea virginica</i>	3 feet	Large shrub	3	150
H	Witch Hazel	<i>Hamamelis virginiana</i>	3 feet	Large shrub	3	150
I	Sheep Laurel	<i>Kalmia angustifolia</i>	18 inches	Small shrub	16	400
J	Dangleberry	<i>Gaylussacia frondosa</i>	18 inches	Small shrub	4	100
K	Rose Pink	<i>Sabatia angularis</i>	1 quart	Herbaceous plant	20	40
L	Wild Geranium	<i>Geranium maculatum</i>	1 quart	Herbaceous plant	10	20
M	Smooth Blue Aster	<i>Aster laevis</i>	1 quart	Herbaceous plant	10	20
N	Autumn Bentgrass	<i>Agrostis perennans</i>	1 quart	Grass	25	50
O	Blue-eyed Grass	<i>Sisyrinchium angustifolium</i>	1 quart	Grass	25	50
<b>Actual Total Credit: 2505 SF</b>						

Notes: Replace the American Holly with Eastern Red Cedar to provide more cover. Replace the Paw-paw with Sweetbay Magnolia for denser cover and white flowers in the early summer. For the center meadow area, the ten asters and 50 grasses can be replaced with a grass and wildflower seed mix.



### Plan 21: 3000 SF (Shade) Rest and Relaxation Garden

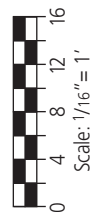
This garden uses trees, shrubs, and herbaceous plants that do well in shady or partially shady conditions. It is ideal for a backyard or near a porch or deck where you want to create an outdoor area for summertime relaxing. Planting shade trees can significantly reduce summer cooling costs. Several of the species used bloom throughout the summer, and all of the species require very little maintenance once they are established. This garden helps you spend less time caring for a lawn and more time enjoying your beautiful backyard garden.

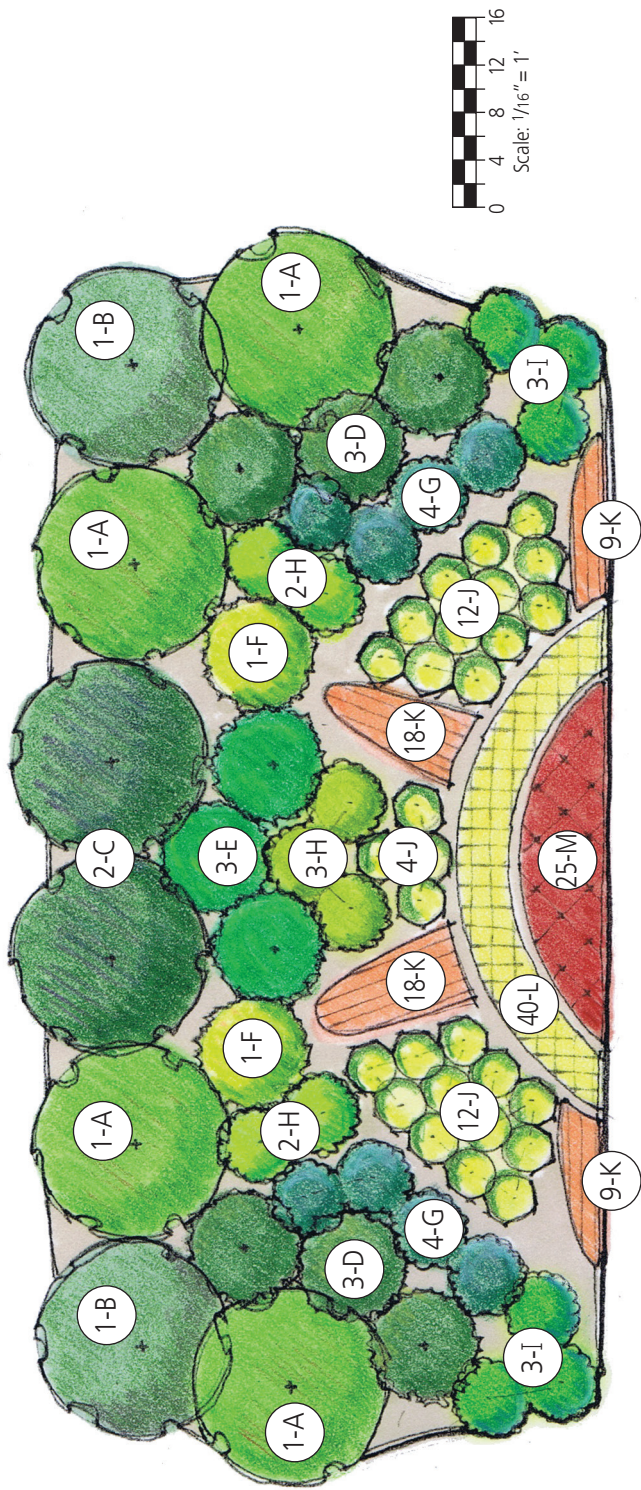


Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Common Hackberry	<i>Celtis occidentalis</i>	¾-inch caliper	Canopy tree	2	200
B	Chestnut Oak	<i>Quercus prinus</i>	¾-inch caliper	Canopy tree	4	400
C	Mockernut Hickory	<i>Carya alba</i>	¾-inch caliper	Canopy tree	2	200
D	Flowering Dogwood	<i>Cornus florida</i>	¾-inch caliper	Canopy tree	1	100
E	White Fringetree	<i>Chionanthus virginicus</i>	¾-inch caliper	Understory tree	6	450
F	Black Haw	<i>Viburnum prunifolium</i>	3 feet	Large shrub	4	200
G	Red Elderberry	<i>Sambucus racemosa</i>	3 feet	Large shrub	3	150
H	Spicebush	<i>Lindera benzoin</i>	3 feet	Large shrub	4	200
I	Maple-leaved Arrowwood	<i>Viburnum acerifolium</i>	3 feet	Large shrub	6	300
J	Deerberry	<i>Vaccinium stamineum</i>	3 feet	Large shrub	1	50
K	Coast Azalea	<i>Rhododendron atlanticum</i>	18 inches	Small shrub	10	250
L	American Beautyberry	<i>Callicarpa americana</i>	18 inches	Small shrub	8	200
M	Black Huckleberry	<i>Gaylussacia baccata</i>	18 inches	Small shrub	6	150
N	Meadow Phlox	<i>Phlox maculata</i>	1 quart	Herbaceous plant	60	120
O	Virginia Spiderwort	<i>Tradescantia virginiana</i>	1 quart	Herbaceous plant	20	40
P	Virginia Bluebells	<i>Mertensia virginica</i>	1 quart	Herbaceous plant	6	12

**Actual Total Credit: 3022 SF**

Notes: Add three Red Maple (*Acer rubrum*) and two Eastern Redbud (*Cercis canadensis*) on the eastern side of the garden to create more evening shade, provide beautiful red and pink color in the spring, and increase the square footage credit to 3500 square feet.





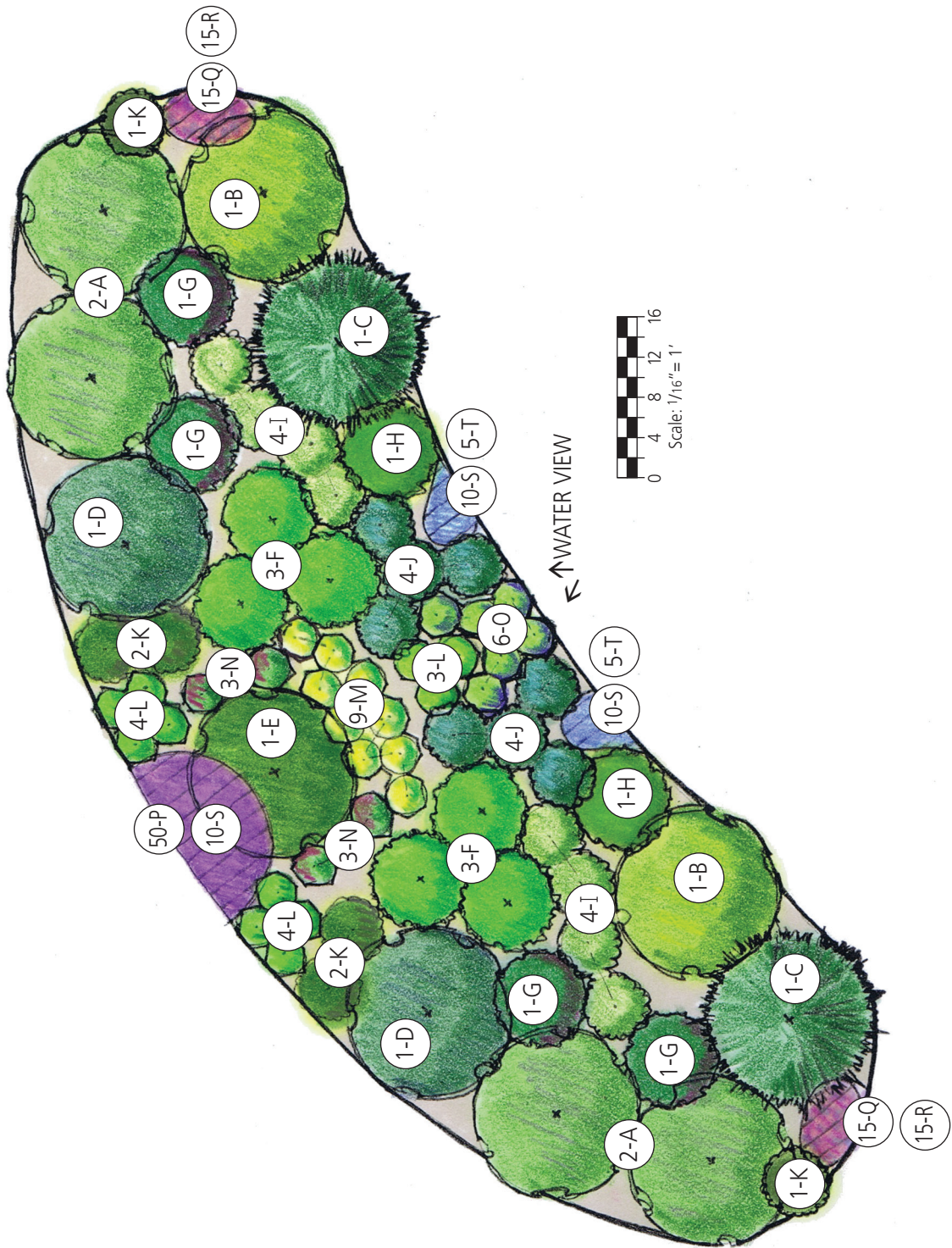
### Plan 22: 3600 SF (Sun) Sunset Garden

This garden is a hardy mix of native trees, shrubs, and long flowering perennials that provide red, orange, gold, and yellow color throughout the year. The trees have wonderful fall color, and the Red Maple has red blooms in the spring as well. The large shrubs all have beautiful fall color. The Dense St. John's Wort is a small shrub that blooms with golden yellow blossoms from July through September. It spreads easily and is a beautiful complement to the red Beebalm, orange Butterfly Flower, and gold Black-eyed Susans.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Red Maple	<i>Acer rubrum</i>	¾-inch caliper	Canopy tree	4	400
B	White Ash	<i>Fraxinus americana</i>	¾-inch caliper	Canopy tree	2	200
C	Black Gum	<i>Nyssa sylvatica</i>	¾-inch caliper	Canopy tree	2	200
D	White Fringetree	<i>Chionanthus virginicus</i>	¾-inch caliper	Understory tree	6	450
E	Green Hawthorn	<i>Crataegus viridis</i>	¾-inch caliper	Understory tree	3	225
F	Eastern Redbud	<i>Cercis canadensis</i>	¾-inch caliper	Understory tree	2	150
G	Spicebush	<i>Lindera benzoin</i>	3 feet	Large shrub	8	400
H	Southern Arrowwood	<i>Viburnum dentatum</i>	3 feet	Large shrub	7	350
I	Virginia Sweetspire	<i>Itea virginica</i>	3 feet	Large shrub	6	300
J	Dense St. John's Wort	<i>Hypericum densiflorum</i>	18 inches	Small shrub	28	700
K	Butterfly Flower	<i>Asclepias tuberosa</i>	1 quart	Herbaceous plant	54	108
L	Black-eyed Susan	<i>Rudbeckia hirta</i>	1 quart	Herbaceous plant	40	80
M	Bee Balm	<i>Monarda didyma</i>	1 quart	Herbaceous plant	25	50

**Actual Total Credit: 3613 SF**

Notes: To create the curved beds for the herbaceous plants, tie a string to a stake and drive the stake in the ground in the middle of and approximately eight feet from the southern edge of the garden. Use lime to mark the "lines." Remember, a perfect circle is not necessary as your usual view of this garden will be at eye level.

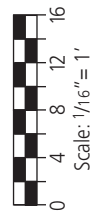
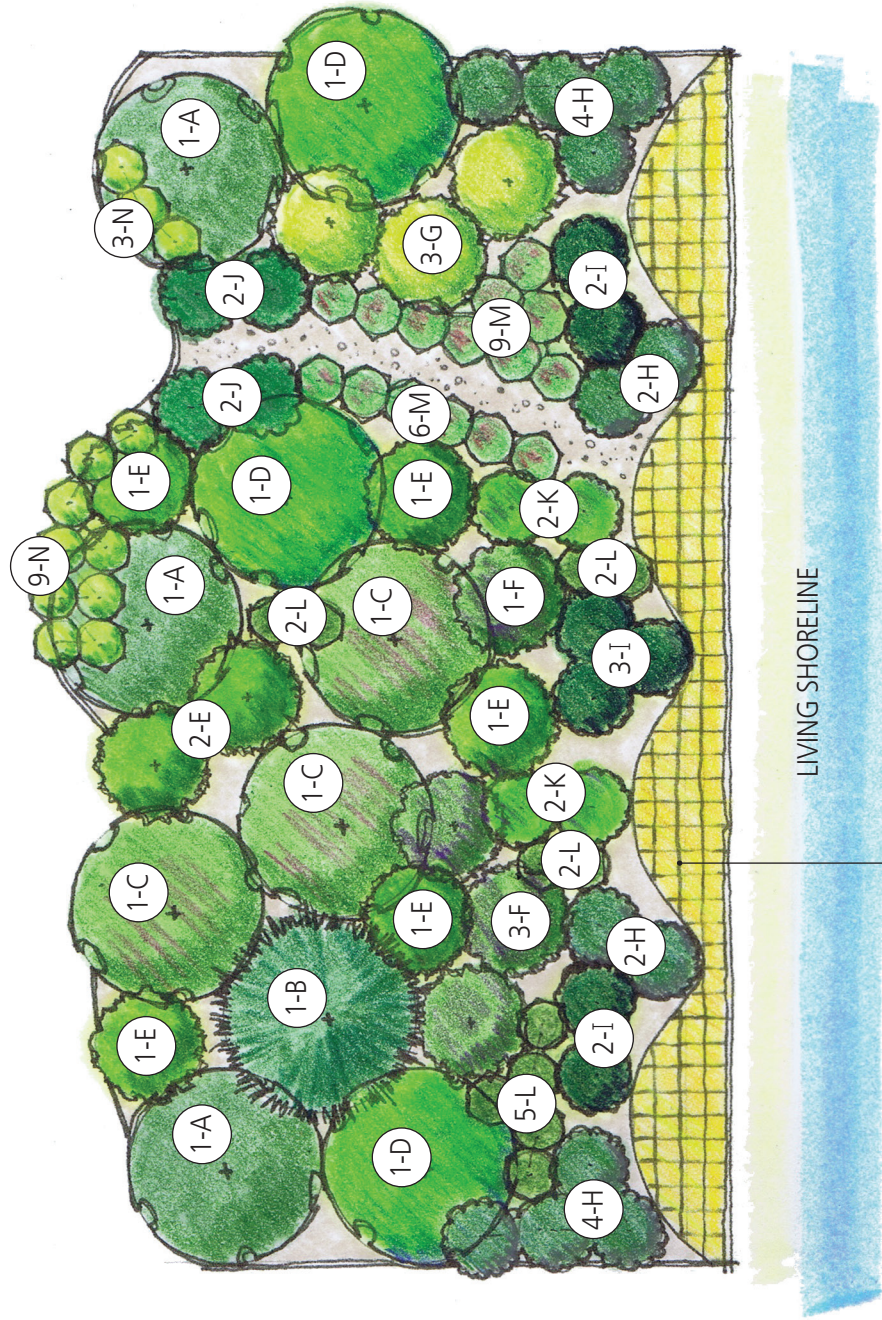


### Plan 23: 4200 SF (Sun) Wild and Wonderful Garden

This planting is designed to use a variety of evergreen and deciduous species with varied size and structure, while maintaining views through the center. The American Sycamore in the middle of the garden is a lovely focal point. American Sycamores have an interesting branching pattern and can be limbed up to allow for views. This tree species has mottled bark that peels away to reveal a white trunk and limbs that are quite dramatic against the sky, water, or a mixed evergreen forest. This garden includes a wide variety of large and small shrubs with interesting forms and structures. Most of the shrubs can be pruned or left "wild." This garden has several pockets of mixed native flowering perennials that provide spring and summer color.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Shagbark Hickory	<i>Carya ovata</i>	¾-inch caliper	Canopy tree	4	400
B	American Beech	<i>Fraxinus americana</i>	¾-inch caliper	Canopy tree	2	200
C	Eastern Red Cedar	<i>Juniperus virginiana</i>	¾-inch caliper	Canopy tree	2	200
D	White Oak	<i>Quercus alba</i>	¾-inch caliper	Canopy tree	2	200
E	American Sycamore	<i>Platanus occidentalis</i>	¾-inch caliper	Canopy tree	1	100
F	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾-inch caliper	Understory tree	6	450
G	Cockspur Hawthorn	<i>Crataegus crus-galli</i>	¾-inch caliper	Understory tree	4	300
H	American Crabapple	<i>Malus coronaria</i>	¾-inch caliper	Understory tree	2	150
I	Inkberry	<i>Ilex glabra</i>	3 feet	Large shrub	8	400
J	Common Elderberry	<i>Sambucus nigra</i>	3 feet	Large shrub	8	400
K	Male-Berry	<i>Lyonia ligustrina</i>	3 feet	Large shrub	6	300
L	Dangleberry	<i>Gaylussacia frondosa</i>	18 inches	Small shrub	11	275
M	Stagger-bush	<i>Lyonia mariana</i>	18 inches	Small shrub	9	225
N	Early Lowbush Blueberry	<i>Vaccinium pallidum</i>	18 inches	Small shrub	6	150
O	Sheep Laurel	<i>Kalmia angustifolium</i>	18 inches	Small shrub	6	150
P	Summer Phlox	<i>Phlox paniculata</i>	1 quart	Herbaceous plant	50	100
Q	Gayfeather	<i>Liatris spicata</i>	1 quart	Herbaceous plant	30	60
R	Stiff Leaf Aster	<i>Ionactis linariifolius</i>	1 quart	Herbaceous plant	30	60
S	Wild Blue Indigo	<i>Baptisia australis</i>	1 quart	Herbaceous plant	30	60
T	Passionflower	<i>Passiflora incarnata</i>	1 quart	Vine	10	20
<b>Actual Total Credit: 4200 SF</b>						

Notes: This garden uses species that do well in sun or shade. If the area beneath the canopy trees seems too bare, most fern species do very well in shady forested conditions. Add some Christmas Fern (*Polystichum acrostichoides*) or Sensitive Fern (*Onoclea sensibilis*) to fill in. Many native fern species spread easily. Add two American Holly (*Ilex opaca*) to enhance winter structure and cover and increase the credit to 4400 square feet.



LIVING SHORELINE

RANDOM MIX OF 75-O 75-P 75-Q

## Plan 24: 4800 SF (Mixed Sun and Shade) Living Shoreline Garden

This planting is perfect for shoreline areas where a “living shoreline” has been (or will be) implemented to control shoreline erosion. The garden is designed to provide ample sunlight near the shoreline so that the native grasses that are part of the shoreline erosion control practice will grow and spread. The area next to the shoreline is a mix of grasses and salt tolerant shrubs that will work well with the plantings that are part of the living shoreline. Adjacent to this area, there is a mix of shrubs and smaller trees. Larger canopy trees and shade tolerant shrubs are planted farthest from the shoreline so as not to interfere with the sunlight needed for the living shoreline or affect the structural integrity of the bank. A three-foot-wide mulched path lined with shrubs provides access and a view through the garden.

Symbol	Common Name	Scientific Name	Size	Plant Type	Total Number	Credit
A	Green Ash	<i>Fraxinus pennsylvanica</i>	¾-inch caliper	Canopy tree	3	300
B	Eastern Red Cedar	<i>Juniperus virginiana</i>	¾ – inch caliper	Canopy tree	1	100
C	Black Gum	<i>Nyssa sylvatica</i>	¾ – inch caliper	Canopy tree	3	300
D	Swamp White Oak	<i>Quercus bicolor</i>	¾ – inch caliper	Canopy tree	3	300
E	Sweetbay Magnolia	<i>Magnolia virginiana</i>	¾ – inch caliper	Understory tree	7	525
F	Eastern Redbud	<i>Cercis canadensis</i>	¾ – inch caliper	Understory tree	4	300
G	Chinquapin	<i>Castanea pumila</i>	¾ – inch caliper	Understory tree	3	225
H	High-Tide Bush	<i>Baccharis halimifolia</i>	3 feet	Large shrub	12	600
I	Southern Bayberry	<i>Morella cerifera</i>	3 feet	Large shrub	7	350
J	Smooth Winterberry	<i>Ilex laevigata</i>	3 feet	Large shrub	4	200
K	Inkberry	<i>Ilex glabra</i>	3 feet	Large shrub	4	200
L	Black Chokeberry	<i>Photinia melanocarpa</i>	18 inches	Small shrub	11	275
M	Steeplebush	<i>Spiraea tomentosa</i>	18 inches	Small shrub	15	375
N	Maple-leaved Arrowwood	<i>Viburnum acerifolium</i>	18 inches	Small shrub	12	300
O	Little Bluestem	<i>Schizachyrium scoparium</i>	1 quart	Grass	75	150
P	Switchgrass	<i>Panicum virgatum</i>	1 quart	Grass	75	150
Q	Broomsedge	<i>Andropogon virginicus</i>	1 quart	Grass	75	150
<b>Actual Total Credit: 4800 SF</b>						

Notes: Rose Mallow (*Hibiscus moscheutos*) is a beautiful flowering herbaceous plant that can be used in place of some of the grasses as it tolerates brackish areas. Add two additional Eastern Red Cedars to reduce the quantity of grasses (by 100 plants) or to increase the credit to 5000 square feet. The grasses can be replaced with a native seed mix that includes salt tolerant species.

## Preparing the Location for Your Buffer Garden

Converting a portion of a lawn into your Buffer garden starts with eliminating the turf grass. An easy non-chemical method is to use newspaper and mulch. Cut grass as short as possible, spread several overlapping layers of newspaper over the entire area, wet thoroughly, and cover it with compost and mulch. Keep the area moist and after six to eight weeks, the area will be free of grass and ready for planting. This can work any time of the year.

Another option is digging up the turf grass. Removing the sod is labor intensive but may be your best option if you are in prime planting time (early spring and fall). Depending upon the size of the area involved, a rototiller and rake, or for smaller areas, a shovel and rake are the best tools to have at hand. Regardless of whether you use a rototiller or do it by hand, thoroughly turn over the soil and rake away the grass. The area should be planted with your trees, shrubs, and perennials and then covered in mulch to reduce the amount of grass returning.

## Improving the Soil of Your Buffer Garden

The surest way to improve plant growth is the regular incorporation of organic matter such as composted yard waste. Organic matter improves soil structure, slowly releases nutrients, and increases beneficial microbial activity. The best time to provide wholesale soil improvement is prior to planting your Buffer garden, but even after the garden is planted, regular soil improvements can greatly enhance the long-term appearance and survival of your Buffer garden.

Start with a soil test. The University of Maryland Extension, Home and Garden Information Center at **800-342-2507** or [hgic.umd.edu](http://hgic.umd.edu) can provide all the information you may need about doing a soil test and how to address any problems such a test may find.

## How to Plant a Tree

1. Dig a shallow, broad planting hole. Make the hole wide and shaped like a saucer, at least three to five times the diameter of the container or root ball but only as deep as the root ball.
2. Remove the tree from the container or remove all rope, wire, and burlap from the sides of the root ball. Cut or remove any circling roots.
3. Place the tree in the planting hole with the top of the root ball level with or slightly above the existing soil line (to allow for some settling). Backfill with the loosened soil. Gently pack the soil around the base of the root ball.
4. Fill the remainder of the hole, taking care to firmly pack soil to eliminate air pockets that may cause roots to dry out. Add soil a few inches at a time and settle with water. Keep backfilling until the soil is just below the root collar. Do not fertilize a newly planted tree.
5. Create a slight water-holding basin around the base of the tree and give the tree a good watering. Once the water has soaked in, spread approximately two to four inches of mulch around the base of the tree. Leave a mulch-free area of about two inches around the trunk to avoid decay.
6. Keep the soil moist but not soaked by watering at least once a week (if it does not rain) and more frequently during hot weather. When the soil is dry below the surface of the mulch, it is time to water.