

Designing with Native Plants

BARBARA RYAN, CHAIN BRIDGE NATIVE LANDSCAPES LLC
NOVA WILD ONES MAY MEETING
MAY 21, 2023



- ▶ The basics
- ▶ Elements of a sustainable landscape
- ▶ Getting ready
- ▶ Essential design steps

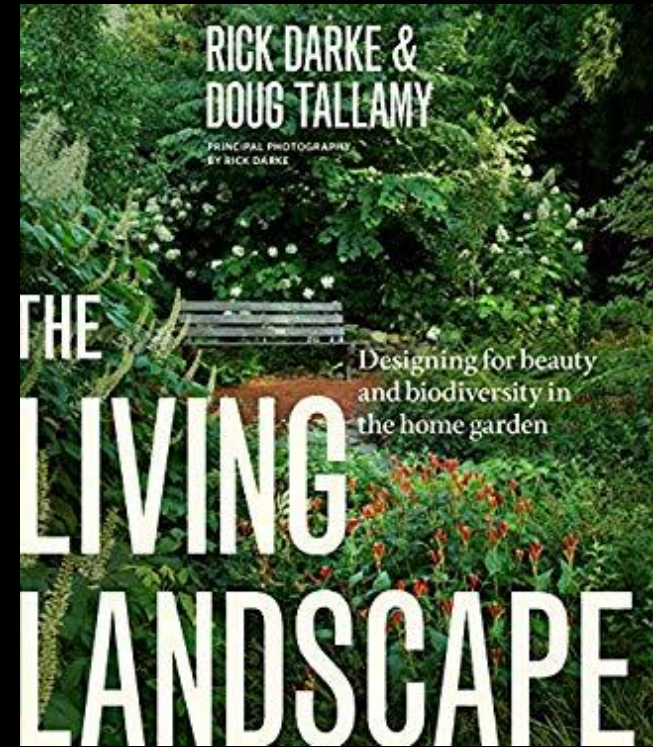


The basics

What is a native plant?


“native: a plant or animal that has evolved in a given place over a period of time sufficient to develop complex and essential relationships with the physical environment and other organisms in a given ecological community.”

-- Rick Darke & Doug Tallamy, “The Living Landscape”



The basics

What about cultivars?



Virginia Native Plant Society
Conserving Wild Flowers and Wild Places

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Statement on Cultivars

The Virginia Native Plant Society (VNPS) encourages communities and individuals to incorporate native plants into managed landscapes and, when doing so, to maximize the use of wild-type plants. Such an approach provides the most reliable way to support the flora and fauna with which these plant species have coevolved over millennia, to maintain genetic diversity and to minimize the risks inherent in introducing plants to an ecosystem. This is particularly important in ecological restoration projects, mass plantings in parks and on private grounds and in any landscaping in proximity to natural areas.

VNPS recognizes that wild-type plants may be difficult to find in the marketplace, and that cultivars and hybrids of native plant species can offer distinctive characteristics which increase their effectiveness in landscape design. However, due to documented cases where the introduction of cultivated plants has negatively impacted natural populations, and because the ecological implications of such plants have not yet been adequately evaluated, we recommend avoiding hybrids and using cultivars only in locations distant from natural areas (e.g., urban gardens) and to exercise caution in the selection of plants that vary significantly from the wild type (e.g., in flower structure, flower color, fruit size and leaf color).

VNPS encourages the horticulture industry to provide more wild-type plants and to clearly label cultivars to assist the public in distinguishing between the two.

Adopted March 17, 2021

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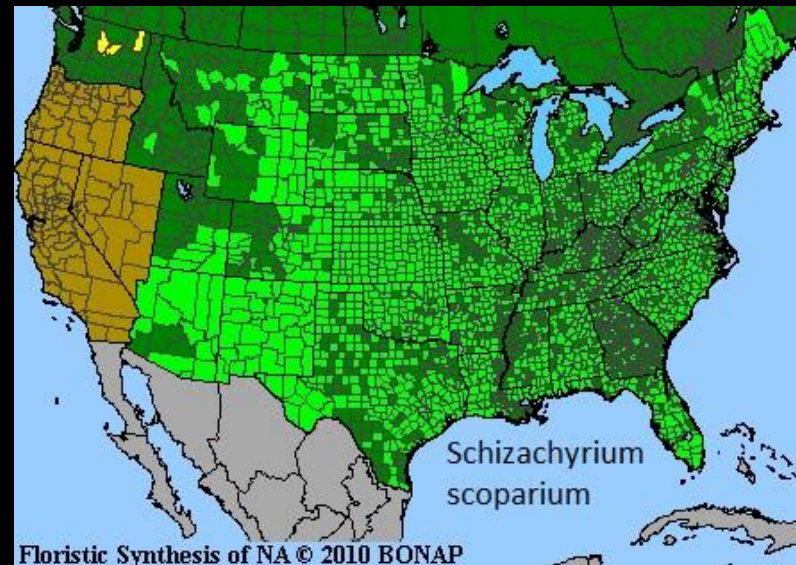
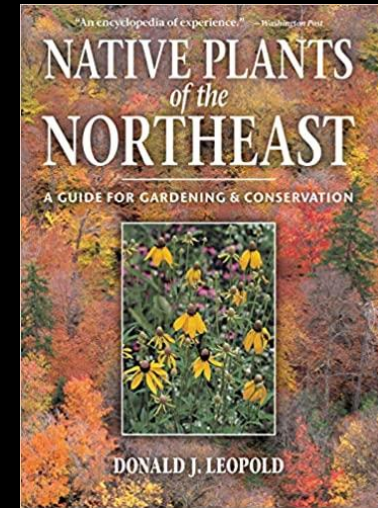
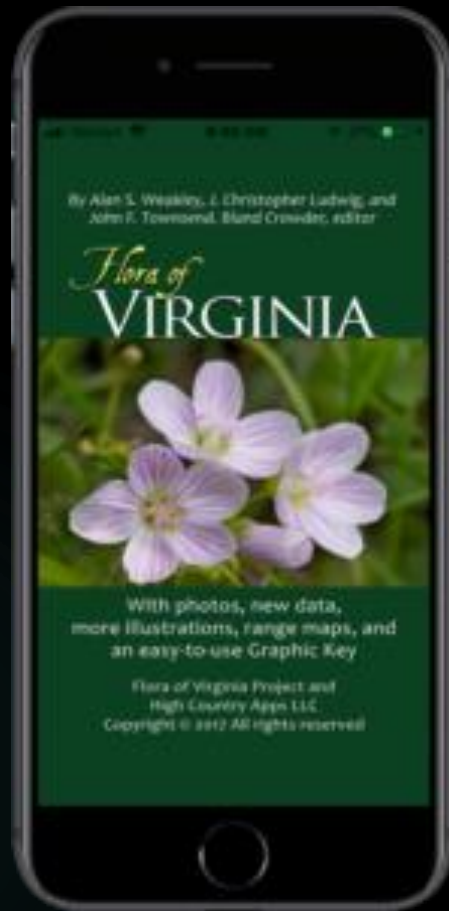
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Conservation

- [Cultivars](#)
- [Deer Management](#) ^{PDF}
- [Green & Clean Lawn Care Providers](#)
- [Invasive Plants](#)
- [- Invasive Landscape](#)

The basics

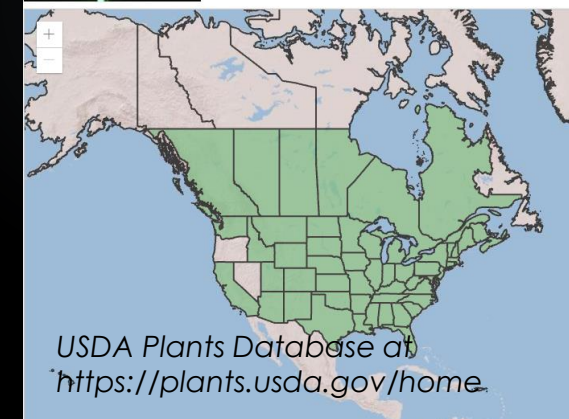
Native to
where?



Schizachyrium scoparium (Michx.) Nash
little bluestem



General Information	
Symbol:	SCSC
Group:	Monocot
Duration:	Perennial
Growth Habit:	Graminoid
Native Status:	CAN N HI I L48 N
Plant Guide (doc) (pdf)	



USDA Plants Database at
<https://plants.usda.gov/home>

Elements of a sustainable landscape

Supports
life



Monarda fistulosa
Wild Bergamot

Elements of a sustainable landscape

Hosts caterpillars



Oaks are hosts for the Gray Hairstreak

Birch, Willow, and Maple are hosts for the Yellow Tiger Moth



Serviceberry, Tulip Poplar, and Sweetbay Magnolias are hosts for the Eastern Tiger Swallowtail



Spicebush and Sassafras are hosts for the Spicebush Swallowtail

Elements of a sustainable landscape

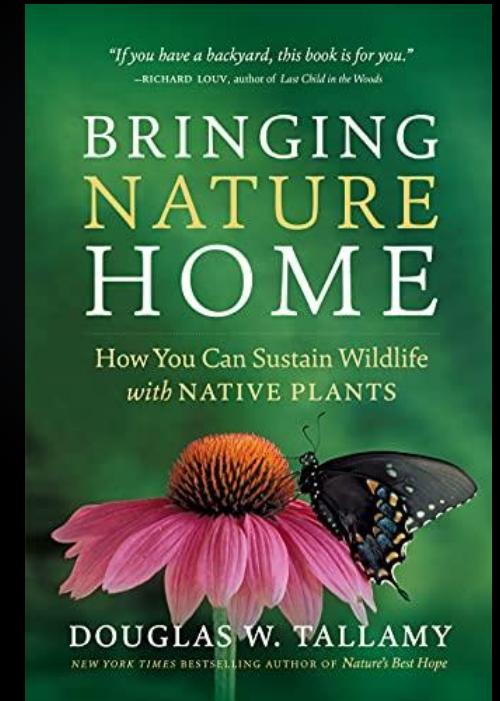
Shelters
life



Elements of a sustainable landscape

Relies
primarily
on native
plants

“All plants are not created equal, particularly in their ability to support wildlife... unless we restore native plants to our suburban ecosystems, the future of biodiversity in the United States is dim
-- Doug Tallamy, “Bringing Nature Home”



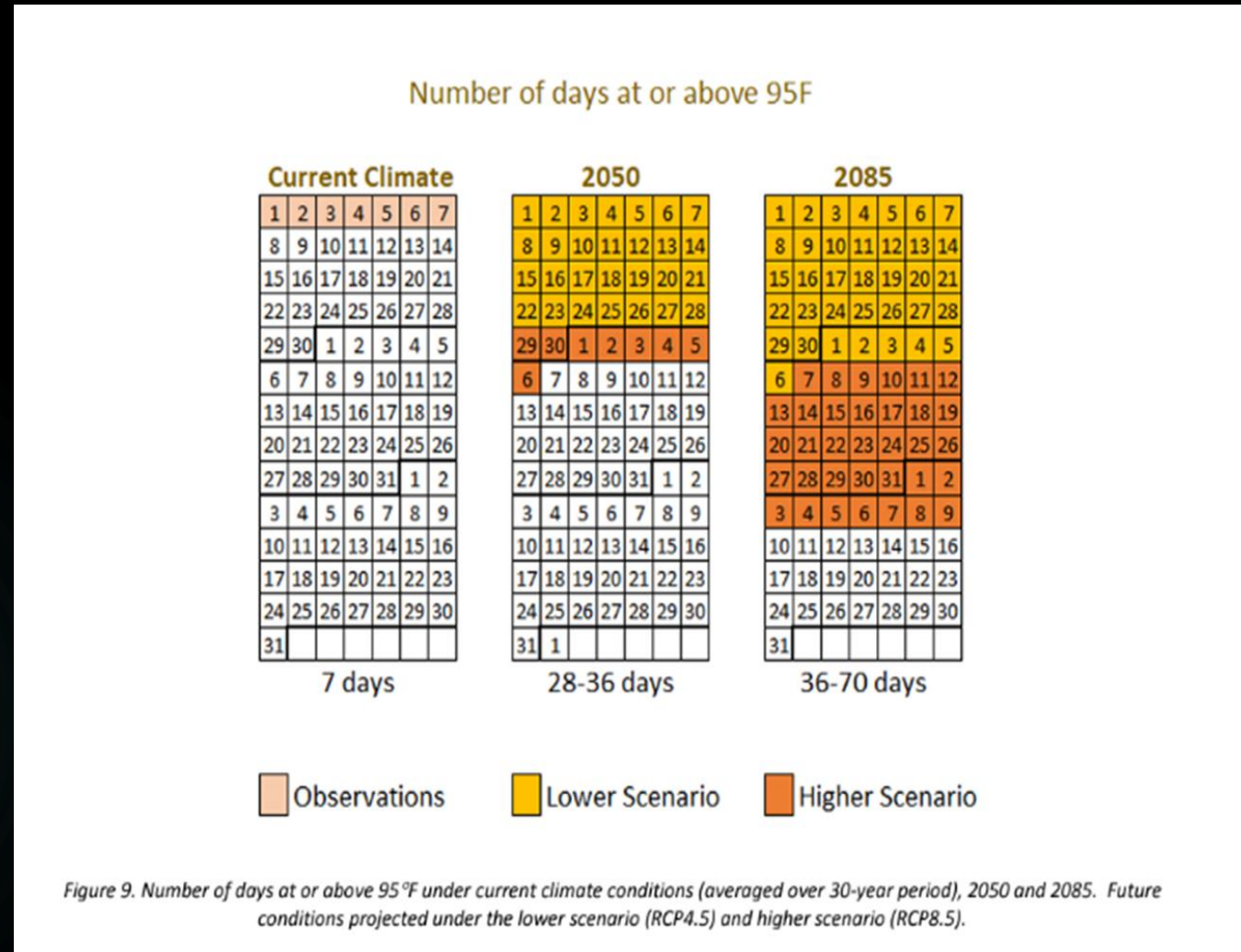
Elements of a sustainable landscape

Does not use
pesticides,
fertilizers,
herbicides



Elements of a sustainable landscape

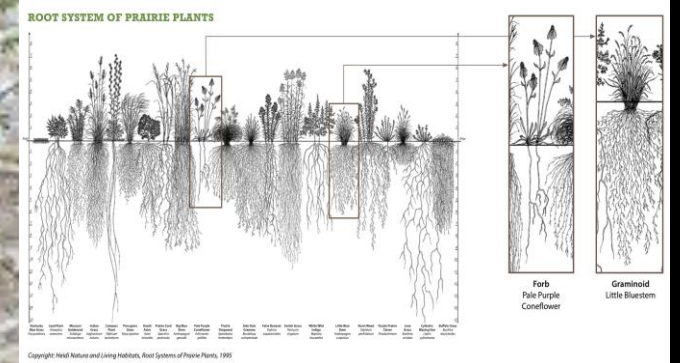
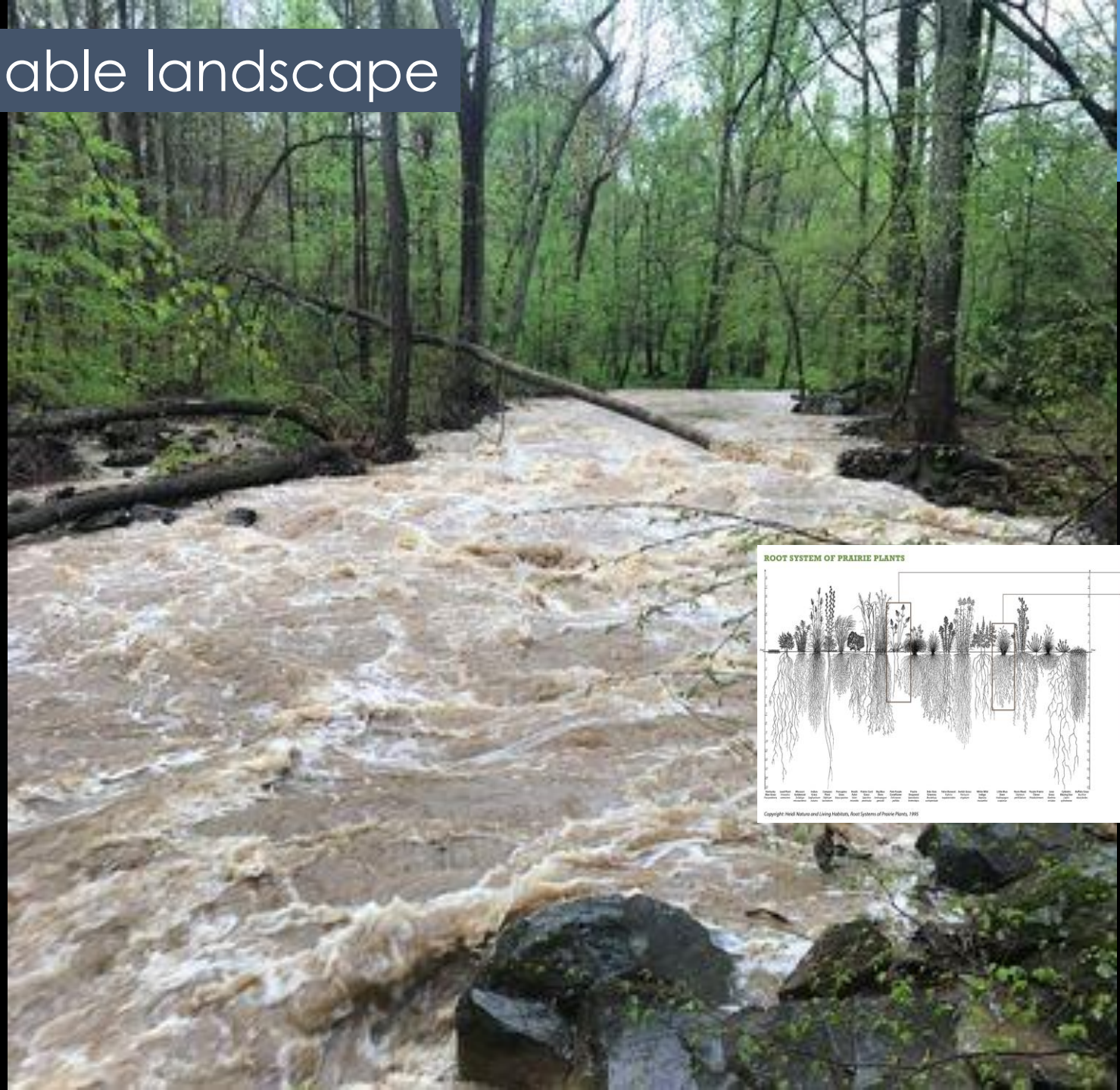
Is resilient



Source: ResilientFairfax Climate Projections Report February 2022

Elements of a sustainable landscape

Absorbs
runoff



Getting ready

Define your goals



Getting ready

Define your
design
aesthetic

*“Planting which serves a purpose
has to look good too”*

PIET OUDOLF & NOEL KINGSBURY, *PLANTING A NEW PERSPECTIVE*, TIMBER PRESS, 2015

Naturalistic



Structured and Formal



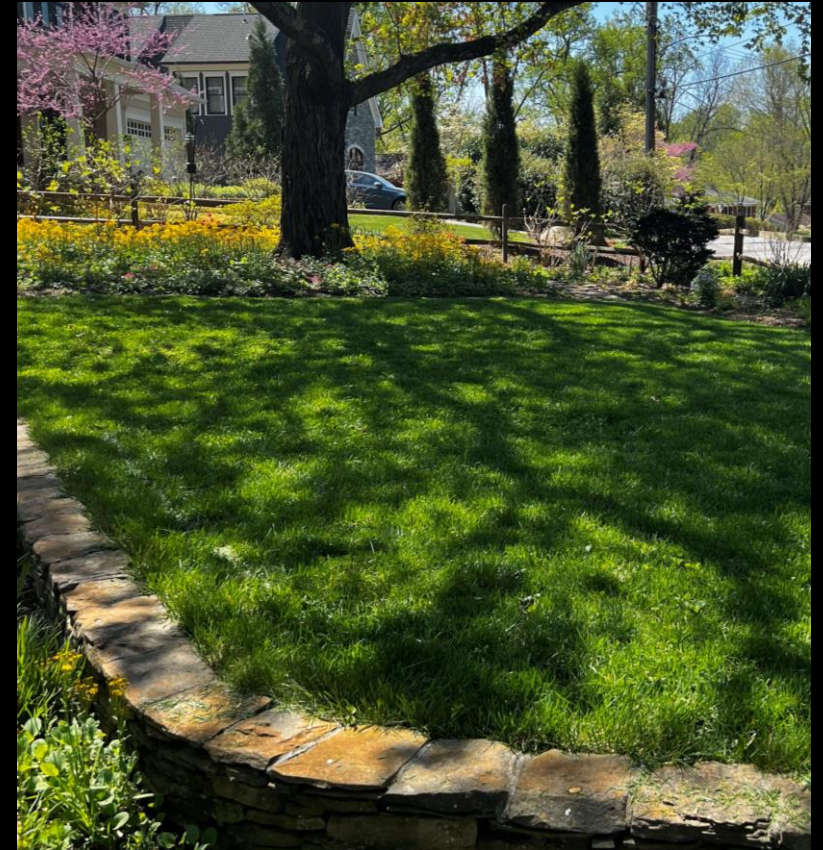
Getting ready

Identify your
opportunities



Getting ready

Reduce lawn



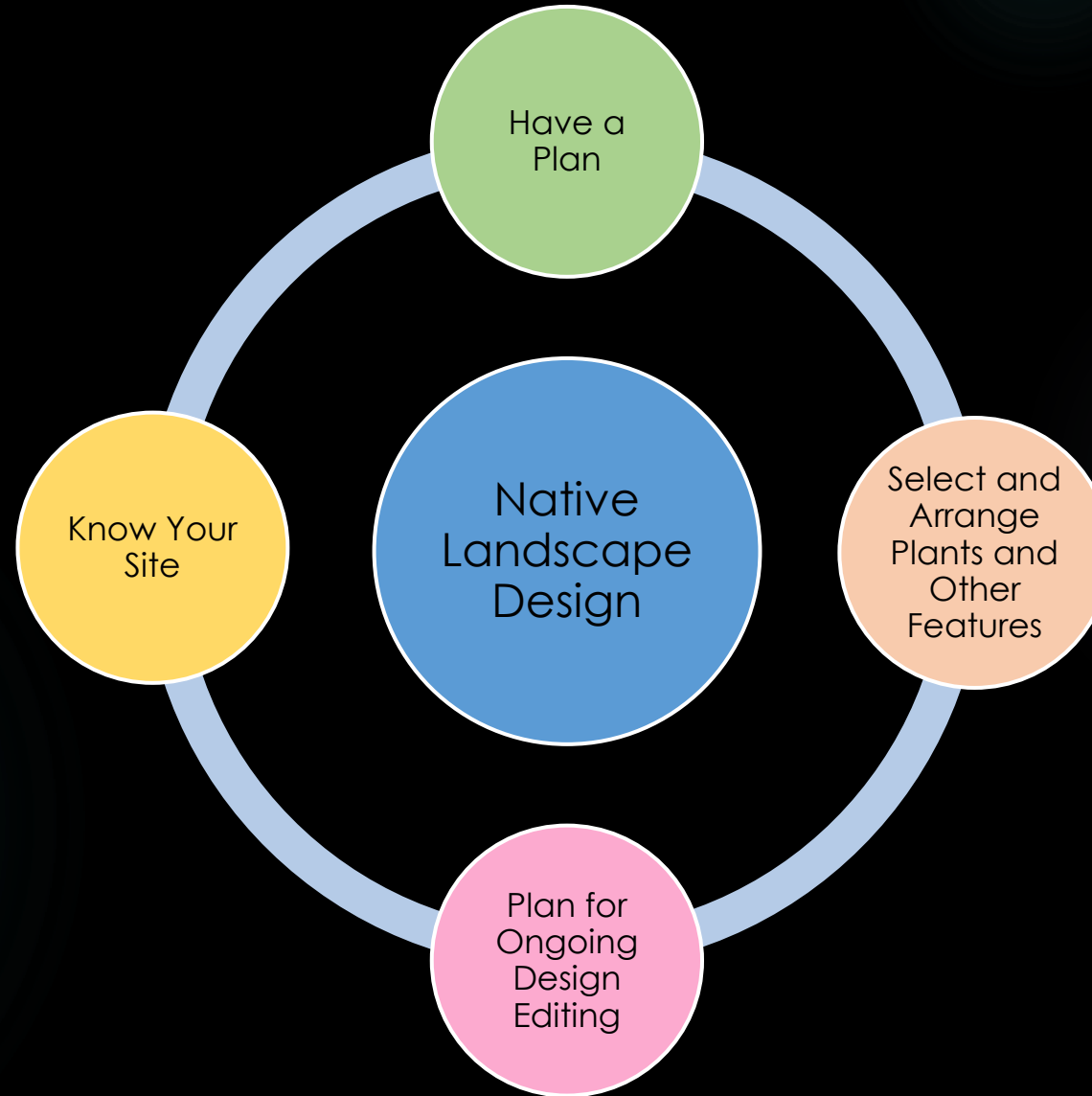
Getting ready

Remove invasives



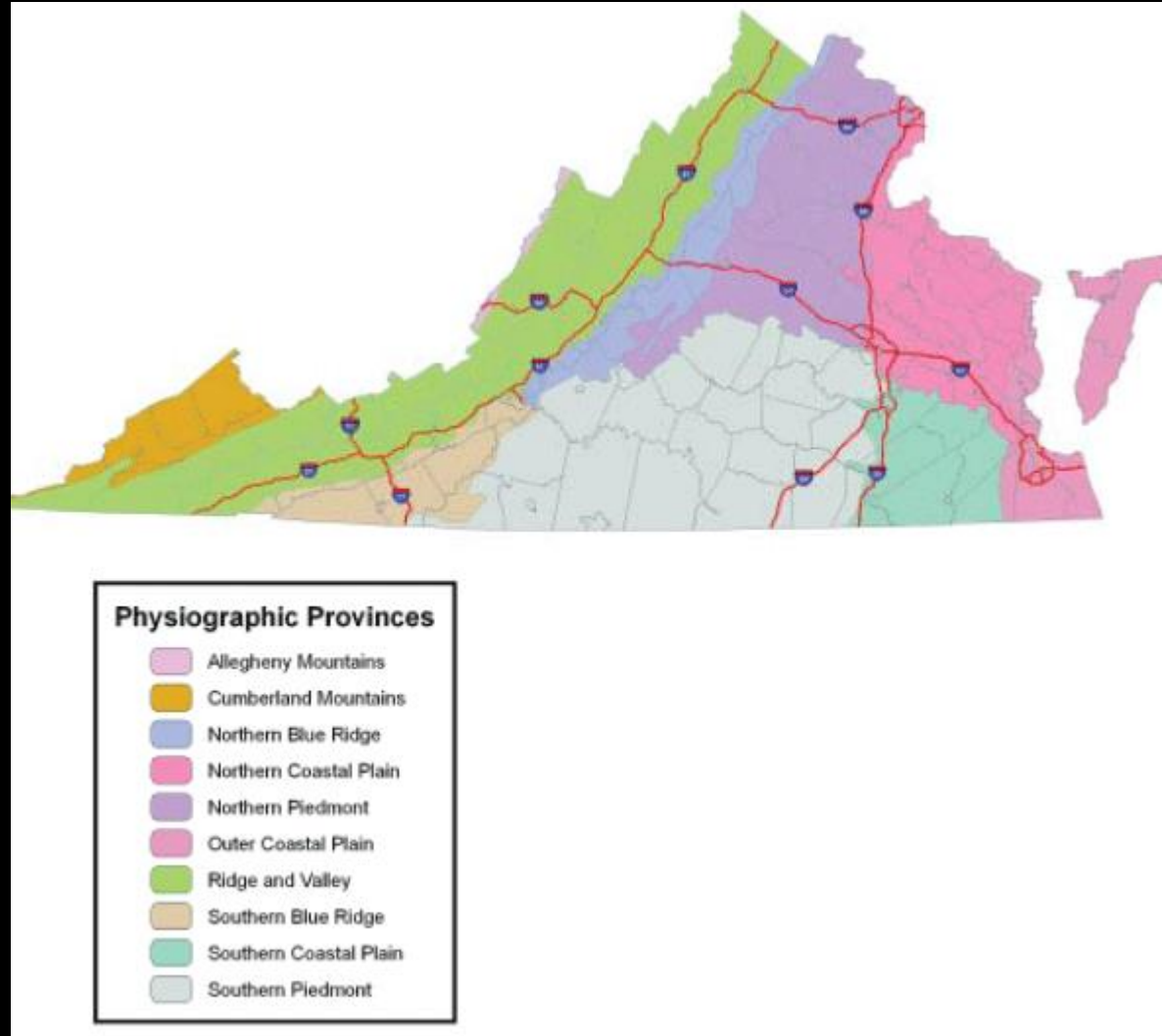
Virginia Invasive Plant Species List						
	Scientific Name	Common Name	Virginia Invasiveness Rank	REGION		
				Mountain	Piedmont	Coastal
 Tree-of-heaven	Allanthurus altissima	Tree-of-heaven	High	•	•	•
	Alliaria petiolata	Garlic Mustard	High	•	•	•
 Phragmites	Alternanthera philoxeroides	Alligator-weed	High			•
	Ampelopsis brevipedunculata	Porcelain-berry	High		•	•
	Carex kobomugi	Japanese Sand Sedge	High			•
	Celastrus orbiculatus	Oriental Bittersweet	High	•	•	•
	Centaurea stoebe ssp. micranthos	Spotted Knapweed	High	•	•	•
	Cirsium arvense	Canada Thistle	High	•	•	•
	Dioscorea polystachya	Cinnamon Vine	High	•	•	•
	Elaeagnus umbellata	Autumn Olive	High	•	•	•
	Euonymus alatus	Winged Euonymus	High	•		
	Ficaria verna	Lesser Celandine	High		•	•
	Hydrilla verticillata	Hydrilla	High	•	•	•
	Iris pseudacorus	Yellow Flag	High		•	•
	Lespedeza cuneata	Chinese Lespedeza	High	•	•	•
	Ligustrum sinense	Chinese Privet	High	•	•	•

Essential design concepts



Essential design concepts

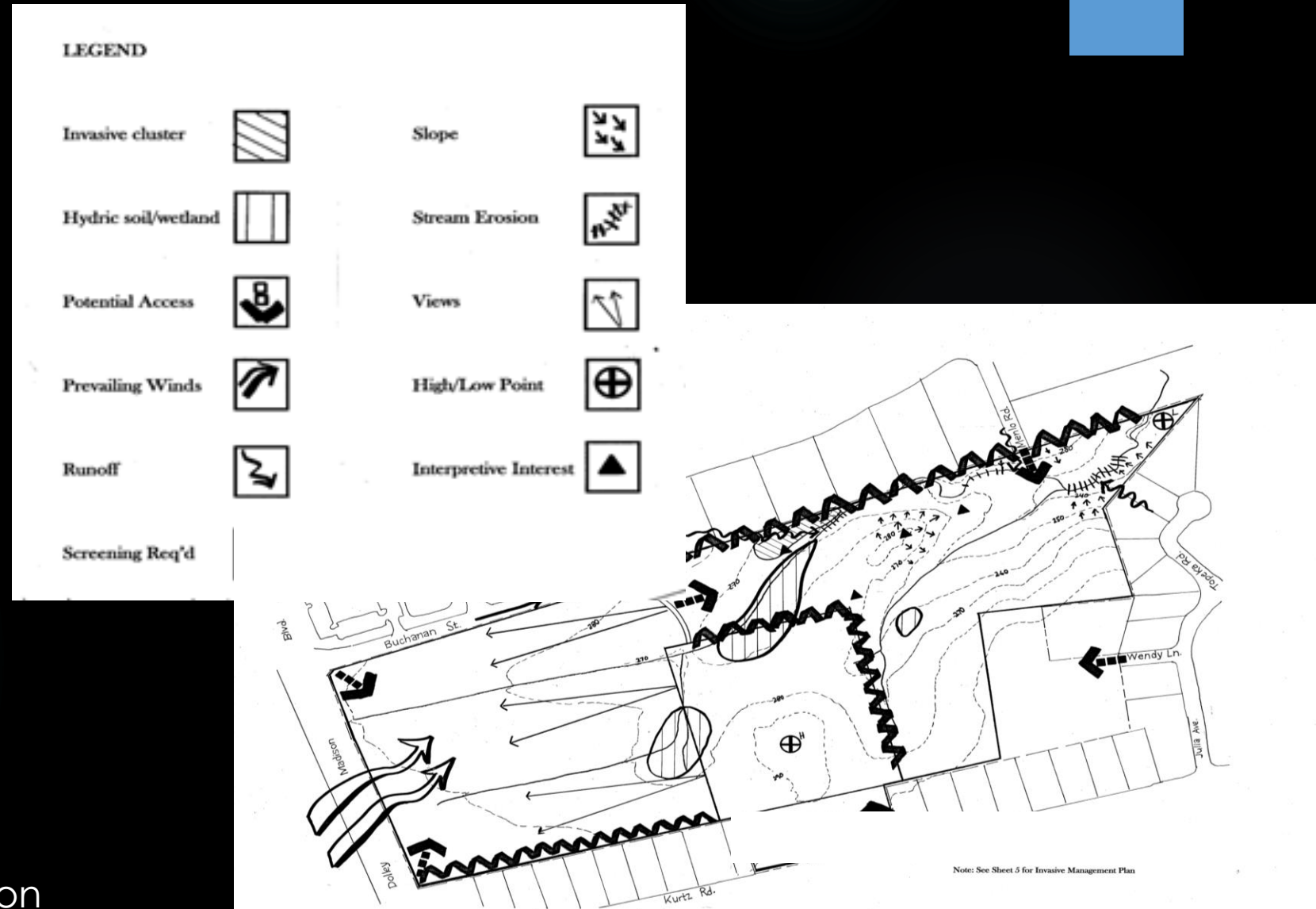
Know your site:
Ecoregion



Essential design concepts

Know your site: conditions

- ✓ Habitat
- ✓ Sunlight
- ✓ Soil type
- ✓ Topography
- ✓ Hydrology
- ✓ Microhabitats
- ✓ Existing vegetation



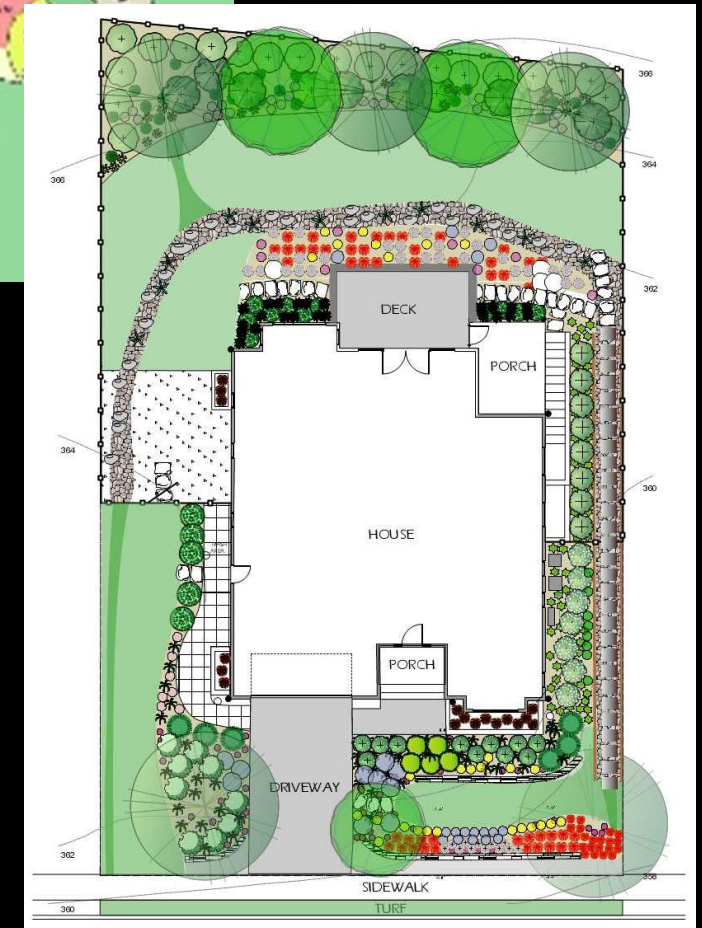
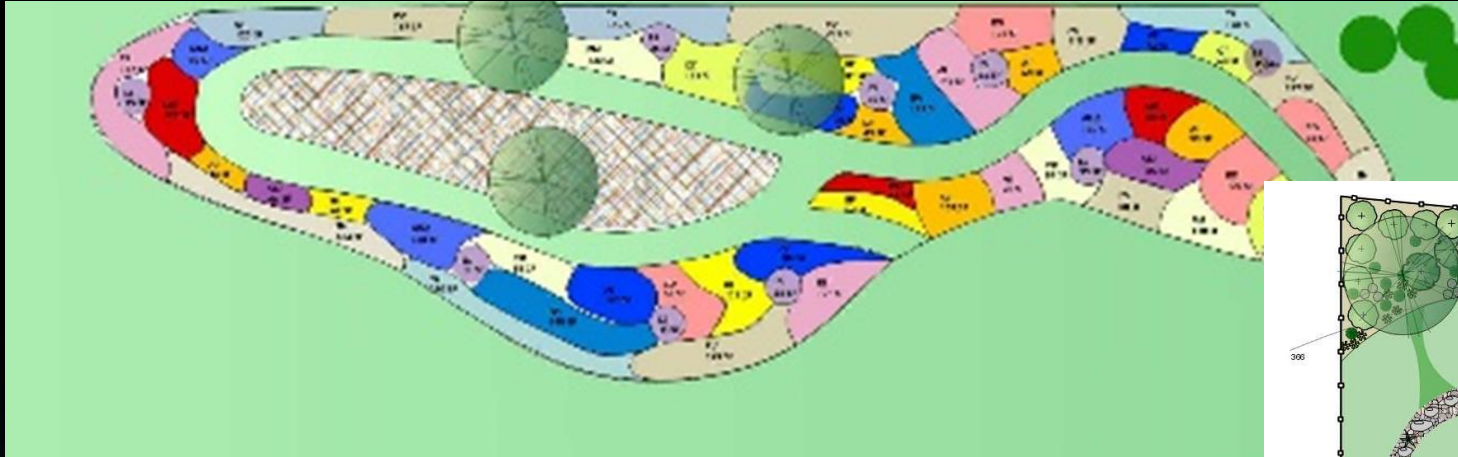
Essential design concepts

Have a plan



Essential design concepts

Simple or elaborate plan



Essential design concepts

Planning: finding
inspiration in
nature



Essential design concepts

Planning:
identify your
natural plant
communities

“It is readily observed that few species of plants exist in nature alone. Practically every one associates habitually with certain other species. Thus they form set clubs or societies. And these friendly associations, based upon similarity of tastes and complementary habits of growth, should not be broken up. If we as landscape gardeners desire to preserve the whole aspect of nature, with all its forms intact, we will keep all plants in their proper social groupings.”

- Frank Waugh, “The Natural Style in Landscape Gardening,” p. 51, 1917

The Natural Style
in Landscape
Gardening

Frank A. Waugh

Essential design concepts

Planning:
identify your
plant
communities

Forest



Grassland
or Prairie



Floodplain



Woodland
Edge



Essential design concepts

Planning: consider structural elements



Essential design concepts

Select a
simple
palette



PRELIMINARY PLANT LIST

Type	Scientific Name	Common Name	Size	Qty
TREE	<i>Betula nigra</i> 'Dura-Heat'	River Birch	15G	3
TREE	<i>Hamamelis virginiana</i> 'Little Prospect'	Autumn Blooming Witch Hazel	5G	1
SHRUB	<i>Aronia arbutifolia</i> 'Brilliantissima'	Red Chokeberry	3G	3
SHRUB	<i>Fothergilla x intermedia</i> 'Mount Airy'	Fothergilla	3G	5
SHRUB	<i>Itea virginica</i> 'Little Henry'	Virginia Sweetspire	3G	10
SHRUB	<i>Viburnum dentatum</i>	Arrowwood Viburnum	3G	6
PER.	<i>Amsonia tabernaemontana</i> 'Storm Cloud'	Blue Star Flower	1G	16
PER.	<i>Packera aurea</i>	Golden Ragwort	LP50	300
PER.	<i>Pycnanthemum muticum</i>	Mountain Mint	LP50	50
PER.	<i>Rudbeckia fulgida</i>	Black Eyed Susan	1G	20
GRASS	<i>Carex cherokeensis</i>	Cherokee Sedge	LP50	50
GRASS	<i>Chasmanthium latifolium</i>	Northern Sea Oats	LP50	100
FERNS	<i>Polystichum acrostichoides</i>	Christmas Fern	1G	15

Essential design concepts

Plant in
layers



Essential design concepts

Groundlayer candidates

Carex spp.
Carex Sedges (various)



Phlox subulata
Moss Phlox



Polystichum acrostichoides/
Christmas Fern



Tiarella cordifolia
Foamflower



Aster ericoides
Heath Aster



Packera aurea
Golden Groundsel



Geranium maculatum
Wild Geranium



Anemone canadensis
Windflower



Essential design concepts

Seasonal
layer
candidates

Asclepias tuberosa
Butterfly Weed



Rudbeckia fulgida
Orange Coneflower



Aquilegia canadensis
Columbine



Monarda fistulosa
Wild Bergamot



Aster novae angliae
New York Aster



Solidago rugosa
Goldenrod



Eurybia divaricatus
White Wood Aster



Chelone glabra
Turtlehead



Essential design concepts

Structural
layer
candidates

Ilex glabra
Inkberry



Itea virginica
Virginia Sweetspire



Viburnum nudum
Smooth Witherod



Clethra alnifolia
Summersweet



Panicum virgatum
Switchgrass



Asclepias incarnata
Swamp Milkweed



Liatris spicata
Gayflower

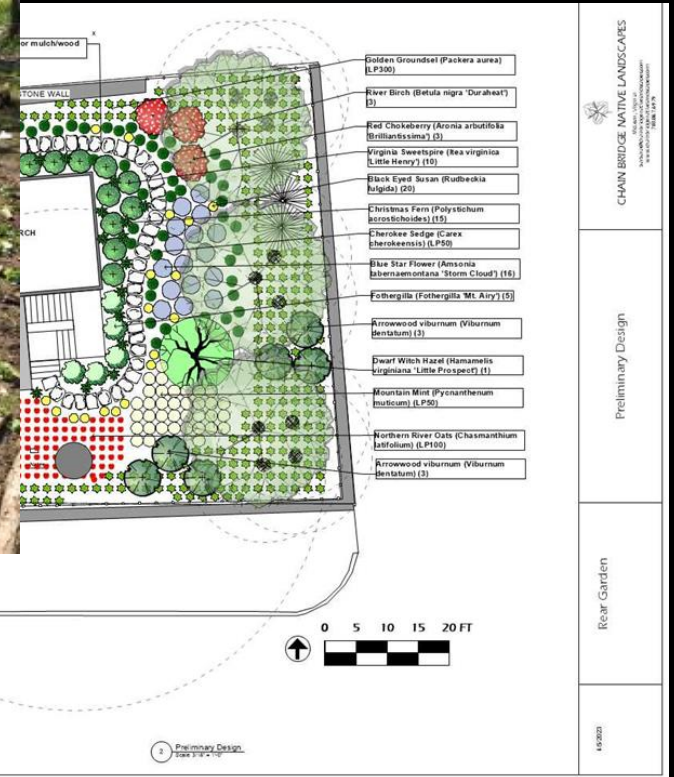


Agastache foeniculum
Anise Hyssop



Essential design concepts

Plant densely



Essential design concepts

Know how
your plants
behave

SPREADERS



Conoclinium coelestinum/
Blue Mist Flower



Anemone canadensis
Canada Anemone



Rudbeckia fulgida
Black Eyed Susan



Chasmanthium latifolium
Northern River Oats

CLUMPERS



Coreopsis verticillata
Threadleaf Tickseed



Heuchera villosa
Alumroot



Sisyrinchium angustifolium
Blue Eyed Grass



Schizachyrium scoparium
Little Blue Stem

Essential design concepts

Natives for Spring



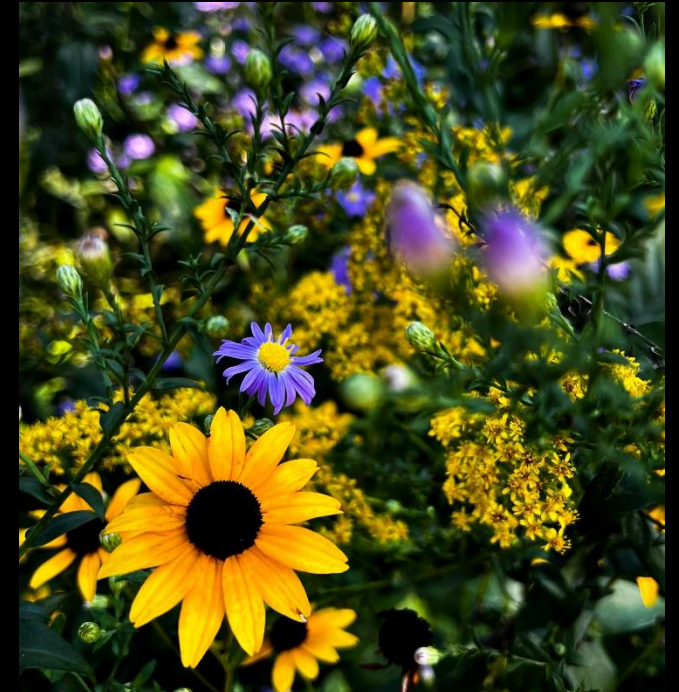
Zizia aurea/Golden Alexander
& *Geranium maculatum*/Wild Geranium

Natives for Summer



Asclepias tuberosa/Butterfly Weed
Monarda fistulosa/Wild Bergamot
Echinacea purpurea/Coneflower

Natives for Fall

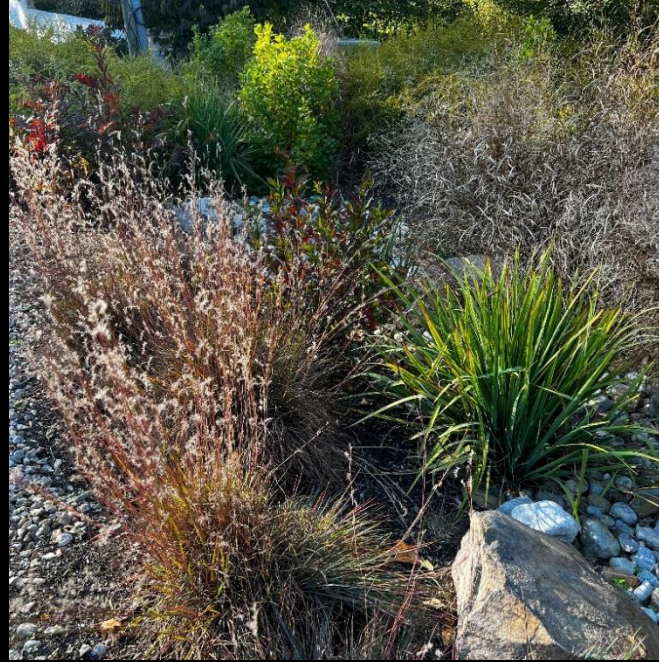


Rudbeckia fulgida/Black Eyed Susan
& *Aster novae Angliae*/New England Aster
& *Solidago rugose*/Rough Goldenrod

Plan for
successive
blooms

Essential design concepts

Mix grasses
and forbs



Essential design concepts

Mix textures
and colors

Coreopsis verticillata/Threadleaf Tickseed
& *Lysimachia lanceolata*/Lanceleaf Loosestrife



Agastache foeniculum/Anise Hyssop
& *Rudbeckia fulgida*/Orange Coneflower



Clethra alnifolia/Summersweet
& *Hydrangea quercifolia*/Oakleaf Hydrangea
& *Callicarpa americana*/Beautyberry



Essential design concepts

Stagger Heights



Stagger
heights,
block, and
repeat

Block



Repeat



Essential design concepts

Cues to care



Essential design concepts

Edit regularly



And lastly, natives that offer more

Agastache foeniculum
Anise Hyssop



Echinacea purpurea
Coneflower



Callicarpa americana
American Beautyberry



Eutrochium dubium
Joe Pye Weed



Galium aparine
Cleavers



Hamamelis virginiana
Witch Hazel



Monarda fistulosa
Wild Bergamot



Monarda punctata
Spotted Bee Balm



Rosa virginiana
Virginia Rose



Sambucus Canadensis
Elderberry



Scutellaria lateriflora
Blue Scullcap



Solidago spp.
Goldenrod



Viola sororia
Violet



Native
medicinals
and edibles



Thank You! Questions?

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