

AN HONORS THESIS PROJECT

Lawn **GONE** **NATIVE**



By Zoe Roane-Hopkins

SHADY & DRY

This shady and dry lawn is completely covered in the front with various fern species, blooming ground covers, and sedges that help with erosion control. Existing shrubs bordering the back yard and the lawn around the patio are preserved.

WHAT'S IN THIS GUIDE, ANYWAY?

1 Existing Conditions

Before looking at the planting design, we need to see what that design may be responding to. The existing conditions of the yard show problems and desires that may be remedied in the design.

2 Planting Template & Phasing

A suggested planting layout that can (and should be) modified for your own yard and a phasing diagram that breaks down the design into manageable phases that you can implement over time.

3 Species Suggestions

A list of all plants in the design and some of their characteristics are organized into a handy chart for you to reference. You can use these characteristics to search for similar plants if you want to change things up.

4 Planting & Maintenance

Additional tips for planting design and a four-season timeline for implementing and maintaining your new garden.

How to Read the Plant List

Common Name

This is the name most often used. Some species have multiple common names. Use the scientific name to see if two common names refer to the same plant.

Scientific Name

Use the scientific name to look up information on a specific species to make sure the facts you find match the plant you are actually looking up.

Bloom & Color

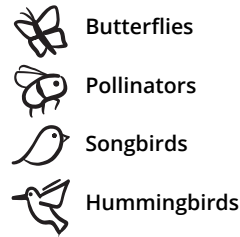
Range of months when the flower is in bloom and color of the blooms.

Seasonal Interest

Mentions if there is visual appeal during fall and/or winter and what part of the plant supplies the interest.

Wildlife Value

Environmental benefits of the plant these include:





Use For

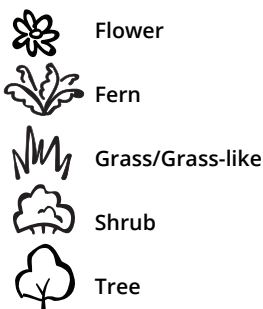
Best use for the species, including:

Pollinator garden
Shade garden
Wet area
Erosion control
Ground cover
Fall interest
Winter interest
Privacy screen

FLOWERS

	APPEARANCE	ENVIRONMENT	USES	NOTES
 <p>Threadleaved coreopsis <i>Coreopsis verticillata</i></p> <p>Height 2-3' Spread 2-3' HZ 5-9</p>	<p>Bloom May-Jun</p> <p>Color Light Orange</p> <p>Seasonal Interest Fall texture</p>	<p>Light ○ ●</p> <p>Water ● ● ●</p> <p>Soil C L S</p>	<p>Wildlife Value </p> <p>Use For Pollinator garden, erosion control, accent</p>	<p>Tolerates dry soil and drought. Low maintenance. Will flop over in soil that is too rich.</p>

Species Type



Hardiness Zones

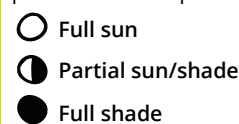
The temperature zone(s) that plant is most well-adapted to. PA's HZ range is 5-6.

Height & Spread

A range for how high the plant gets and how wide the plant spreads over the ground.

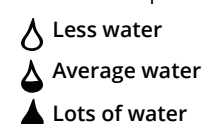
Light

Shows the light preferences of a plant.



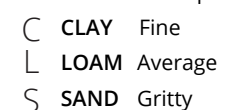
Water

Shows the wetness of the soil that the species prefers.



Soil

Describes the general texture of soil the plant likes.



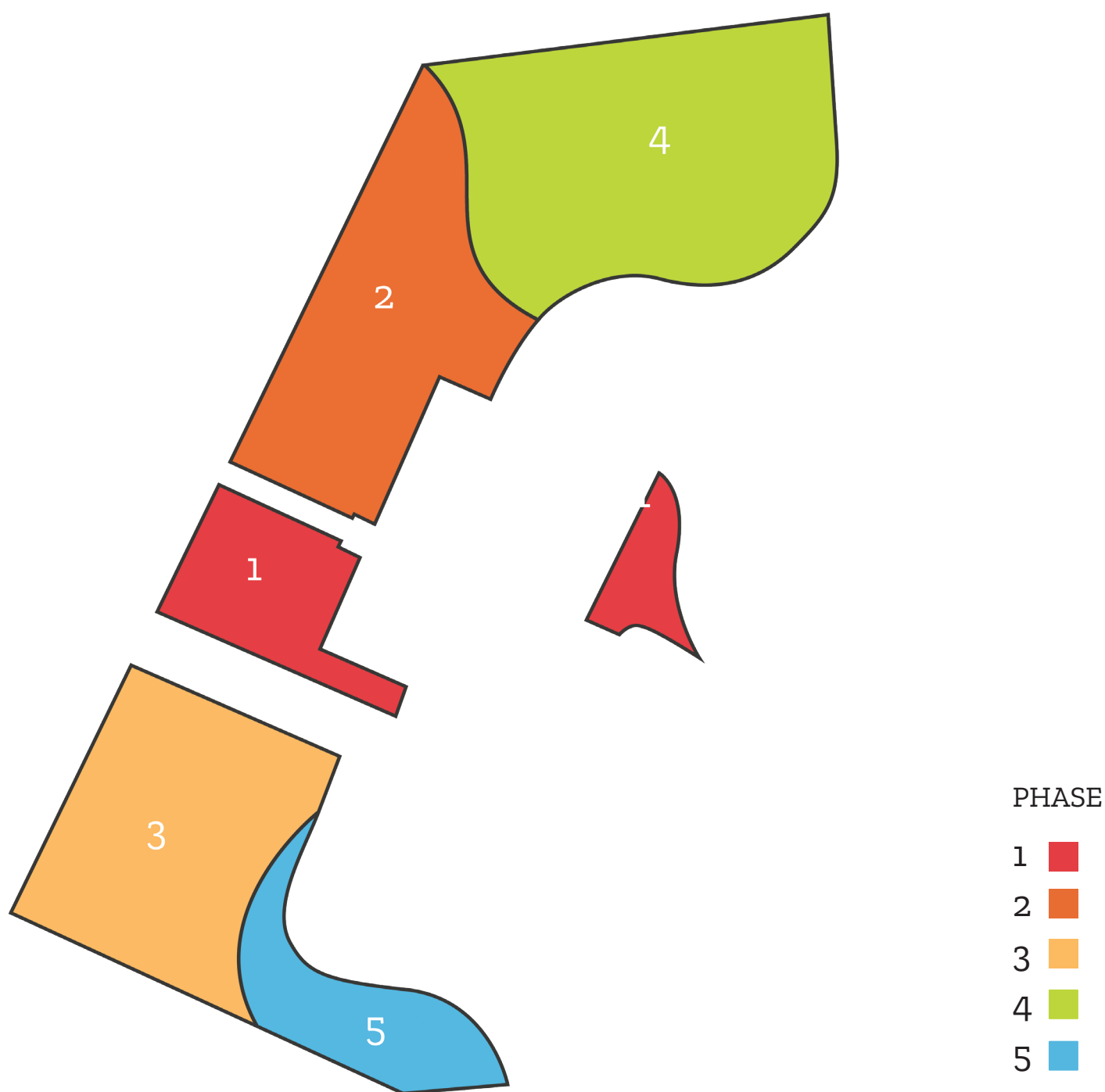
EXISTING CONDITIONS



[illegible]

DESIGN PHASING


































































Breaking down the whole design into smaller, manageable planting beds allows costs and labor to be spread out over time. This diagram shows a suggested order of planting, starting with Phase 1. The idea of the order is to continue filling in your yard without leaving awkward spaces during installation of different phases. Of course, you can really do these in any order you choose. Or, if you're feeling ambitious and want to do it all at once, go right ahead! Just make sure you're planting in late spring (after the mud) or early fall (before the freeze).






































SPECIES LIST
















Browse this list at your leisure but keep in mind that these are just suggestions! There are so many wonderful plants out there, and it's up to you to understand your yard's conditions and to pick the plants that work best with the soil and surrounding environment. Just remember to keep it native!

FLOWERS, FERNS, GRASSES, & GRASS-LIKES

	APPEARANCE	ENVIRONMENT	USES	NOTES
 Black cohosh <i>Actaea racemosa</i>  Height 4-6' Spread 2-4' HZ 3-8	Bloom Jun-Jul Color White Seasonal Interest	Light   Water  Soil C L	Wildlife Value   Use For Shade garden, pollinator garden, accent	Fragrant flowers, plants are slow to establish.
 Canada anemone <i>Anemone canadensis</i>  Height 1-2' Spread 2-3' HZ 3-8	Bloom May-Jun Color White Seasonal Interest	Light   Water  Soil C L	Wildlife Value  Use For Shade garden, erosion control, ground cover	Tolerates clay and basic soils and can be aggressive. Prefers some soil moisture.
 Common milkweed <i>Asclepias syriaca</i>  Height 2-3' Spread 1-2' HZ 3-9	Bloom Jul-Aug Color Pink Seasonal Interest Seed pod	Light  Water   Soil C L	Wildlife Value   Use For Pollinator garden	Tolerates dry soil, host for monarch caterpillars and butterflies
 False solomon's seal <i>Maianthemum racemosum</i>  Height 2-3' Spread 1-2' HZ 3-8	Bloom Apr-May Color White Seasonal Interest Yellow fall leaf	Light  Water  Soil L	Wildlife Value  Use For Pollinator garden, shade garden, fall interest	Deer resistant foliage. Berries are eaten by wildlife in fall. Don't disturb once planted.
 Foam flower <i>Tiarella cordifolia</i>  Height 1-2' Spread 1-2' HZ 4-9	Bloom May Color White Seasonal Interest Fall leaf	Light   Water  Soil L	Wildlife Value   Use For Shade garden, ground cover	Likes acidic soil but tolerates basic. Needs good air circulation.
 Oxeye sunflower <i>Heliopsis helianthoides</i>  Height 3-6' Spread 2-4' HZ 3-9	Bloom Jun-Aug Color Yellow Seasonal Interest	Light   Water   Soil C L S	Wildlife Value    Use For Shade garden, erosion control, accent	Prefers moist soil but tolerates dry, clay. Unpalatable to deer. Supports variety of pollinators and birds.
 White wood aster <i>Eurybia divaricata</i>  Height 1-3' Spread 1-3' HZ 3-8	Bloom Aug-Sep Color White Seasonal Interest Early fall bloom	Light   Water   Soil C L S	Wildlife Value   Use For Shade garden	Tolerates drought and resistant to deer browse.
 Wild blue phlox <i>Phlox divaricata</i>  Height 1' Spread 1' HZ 3-8	Bloom Apr-May Color Light blue Seasonal Interest	Light   Water    Soil L	Wildlife Value   Use For Shade garden, ground cover	Shade garden, erosion control, groundcover
 Wild columbine <i>Aquilegia canadensis</i>  Height 1-3' Spread 1-2' HZ 3-9	Bloom Apr-May Color Red/orange Seasonal Interest	Light    Water  Soil C L S	Wildlife Value  Use For Shade garden, accent	Tolerant of drought and basic soil. Caterpillar host. Does best in partial sun.

APPEARANCE		ENVIRONMENT		USES		NOTES
 Christmas fern <i>Polystichum acrostichoides</i>  Height 1-2' Spread 1-2' HZ 3-9	Bloom Color Seasonal Interest Semi-evergreen	Light Water Soil L S	  	Wildlife Value Use For Shade garden, erosion control, winter interest		Good for dry slopes. Birds use evergreen foliage as shelter for nests.
 Marginal wood fern <i>Dryopteris marginalis</i>  Height 1-2' Spread 1-2' HZ 4-8	Bloom Color Seasonal Interest Semi-evergreen	Light Water Soil C L	  	Wildlife Value Use For Shade garden, erosion control, groundcover		Prefers acidic soil. Evergreen fronds provide winter interest.
 Ostrich fern <i>Matteuccia struthiopteris</i>  Height 3-6' Spread 5-8' HZ 3-7	Bloom Color Seasonal Interest	Light Water Soil C L	  	Wildlife Value Use For Shade garden, erosion control, accent		Tall fern looks nice as accent or against house siding.
 Northern sea oats <i>Chasmanthium latifolium</i>  Height 2-5' Spread 1-3' HZ 3-8	Bloom Aug-Sep Color Green Seasonal Interest Seed pod in fall, winter	Light Water Soil C L S	  	Wildlife Value Use For Erosion control, accent, winter interest	 	Larval host to some butterflies
 Pennsylvania sedge <i>Carex pensylvanica</i>  Height 2-4' Spread 1' HZ 3-8	Bloom May Color Green Seasonal Interest Semi-evergreen	Light Water Soil C L S	  	Wildlife Value Use For Shade garden, erosion control, winter interest		Black walnut tolerance, lawn alternative, prefers acidic soil.
 Seersucker sedge <i>Carex plantaginea</i>  Height 1' Spread 1' HZ 4-8	Bloom May Color Green Seasonal Interest Evergreen leaf	Light Water Soil C L S	  	Wildlife Value Use For Shade garden, erosion control, groundcover	 	Caterpillars and butterflies feed on foliage. Pest resistant once established.

SHRUBS AND TREES

APPEARANCE		ENVIRONMENT		USES		NOTES
 Northern spicebush <i>Lindera benzoin</i>  Height 6-12' Spread 6-12' HZ 4-9	Bloom March Color Yellowish Seasonal Interest Fall leaf & fruit	Light Water Soil C L S	  	Wildlife Value Use For Shade garden, fall interest	  	Male and female plants (only females fruit). Prefers acidic soil.
 Eastern redbud <i>Cercis canadensis</i>  Height 20-30' Spread 25-35' HZ 4-8	Bloom April Color Pink Seasonal Interest Fall leaf	Light Water Soil C L S	  	Wildlife Value Use For Pollinator garden, fall interest	 	Tolerates black walnut, early flower. Deer tolerant. Do not disturb once planted.

ADDITIONAL TIPS

BEFORE YOU PLANT

Do a Percolation Test

Soil drainage is a pretty good indicator of what can live in your yard. To test how your yard drains, dig a hole one foot deep and one foot wide. Place a measuring stick in the hole to make sure it's a foot deep. Fill up the hole once or twice to saturate the soil. Then fill it up again and watch how fast the water level drops. If it disappears quickly, within 5 or 10 minutes, you probably have sandy or loamy soil that drains well. If it takes over a day, your soil probably has lots of clay.

Making Amendments

To improve the drainage and increase the available nutrients in your soil, amend it with local compost and sand. Use a flat-edged spade to scoop up the soil and mix in the amendments to at least six inches for smaller plants and up to 18 inches for trees and shrubs. This can be done in the fall before planting so the soil is fully mixed by spring. Also consider getting your soil tested to see what kind of nutrients are already in your soil.

WHEN YOU PLANT

Plant in Layers

Weeds grow where they see an opportunity to grow. Covering bare ground by layering ground cover species with upright and mounding plants creates a fuller, richer garden while also reducing the amount of space where weeds can grow.

Accent Plants

While this planting design shows plants in distinctive patches, it's a good idea to add some accent plants with a contrasting texture or color to make your garden really pop.

A FEW SUGGESTIONS INCLUDE:

Ostrich fern

Matteuccia struthiopteris

Coral bells

Hechura americana

AFTER YOU PLANT

Live & Let Live (Or Die)

A successful garden requires plants that can thrive in your yard. So if you plant something and it dies, don't try to resuscitate it. Do a little research as to why it didn't survive and try a new plant. Conversely, if a particular species is doing well and spreading past its original area, let it happen. It's clearly quite content in your yard.

A FOUR SEASON TASK CALENDAR

FALL

Site Analysis

Observe your yard's existing conditions and make a map of the environmental factors that will impact your plant choices. (Where is it sunny, wet, shady, dry, etc.)

Check the Soil

Test your soil's pH and percolation to see what kind of plants will thrive in your yard.

Get the Beds Ready

Mark out your beds with twine and stakes, dig up the turf, and amend the soil as needed.

Identify generally how you want to lay out your plants to get a sense of how many plants you want to buy.

SPRING

Buy & Plant your plants!

The number of plants you need will depend on the type and size of the stock. Typically, you will buy landscape plugs or containers. Many nursery websites have recommendations for how far apart to space your plants.

Adding a 1.5 to 2-inch layer of mulch after planting can retain more soil moisture and prevents weeds from taking over your new bed. Just keep the mulch away from stems and trunks to prevent rotting.

WINTER

Start designing

Use the Lawn Gone Native templates as a starting point and modify to fit your yard and personal goals

Find Your Plants

Scout out nearby nurseries that carry native plants. You may not be able to find every plant you're looking for, but that's just an opportunity to find some new plants!

SUMMER

New Garden Maintenance

Newly planted plants often need regular watering until established. This is especially important in the summer as heat puts additional stress on a plant while trying to establish its root system.

Observe Your Growing Garden

Watch how your garden grows. Remember that plants are living things that grow, change, and spread. They aren't going to stay exactly where you put them. And if you see a nibble on a leaf, get excited because that means your garden is part of the local ecosystem!

GARDEN PRIDE

Show off your new garden with an official sign!

**POLLINATOR
HABITAT
SIGN**

Xerces Society

[Xerces.org/pollinatorhabitat/sign](https://xerces.org/pollinatorhabitat/sign)

**CERTIFIED
WILDLIFE
HABITAT
SIGN**

National Wildlife Federation

[Nwf.org/CertifiedWildlifeHabitat](https://nwf.org/CertifiedWildlifeHabitat)

INFORMATION SOURCES

Missouri Botanical Garden

Missouribotanicalgarden.org/plantfinder

Good for looking up the basic qualities of many native plants that are also found in PA

North Creek Nurseries

Northcreeknurseries.com

A Pennsylvania native plant nursery with some information on species

New Moon Nursery

Newmoonnursery.com

Has a wonderful comprehensive description of most herbaceous perennial flowers, grasses, and grass-like

Ladybird Johnson Wildflower Center

Wildflower.org/plants/

Another great resource with helpful information on many species

IMAGE SOURCES

IMAGES FROM FLICKR.COM

Black cohosh (*Actaea racemosa*)

John Hayes, Flickr.com

Canada anemone (*Anemone canadensis*)

Joshua Mayer, Flickr.com

False solomon's seal (*Maianthemum racemosum*)

Plant Image Library, Flickr.com

Foam flower (*Tiarella cordifolia*)

Great Smoky Mountains National Park, Flickr.com

Northern sea oats (*Chasmanthium latifolium*)

Aaron Carlson, Flickr.com

Northern spicebush (*Lindera benzoin*)

Matthew Beziat, Flickr.com

Oxeye sunflower (*Heliopsis helianthoides*)

Joshua Mayer, Flickr.com

Ostrich fern (*Matteuccia struthiopteris*)

Michele Dorsey Walfred, Flickr.com

Sideoats grama (*Bouteloua curtipendula*)

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Wild blue phlox (*Phlox divaricata*)

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LAWN GONE NATIVE

Growing the suburban wild, one yard at a time

AN HONORS THESIS PROJECT

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