

The background is a solid blue color with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the upper half of the image.

PLANT SELECTION FOR RAIN GARDENS AND OTHER STORMWATER INSTALLATIONS

CATHY NEAL, UNH COOPERATIVE EXTENSION



Right Plant

Right Place

RIGHT FUNCTION

*Goals: Infiltration and
Vegetation!*

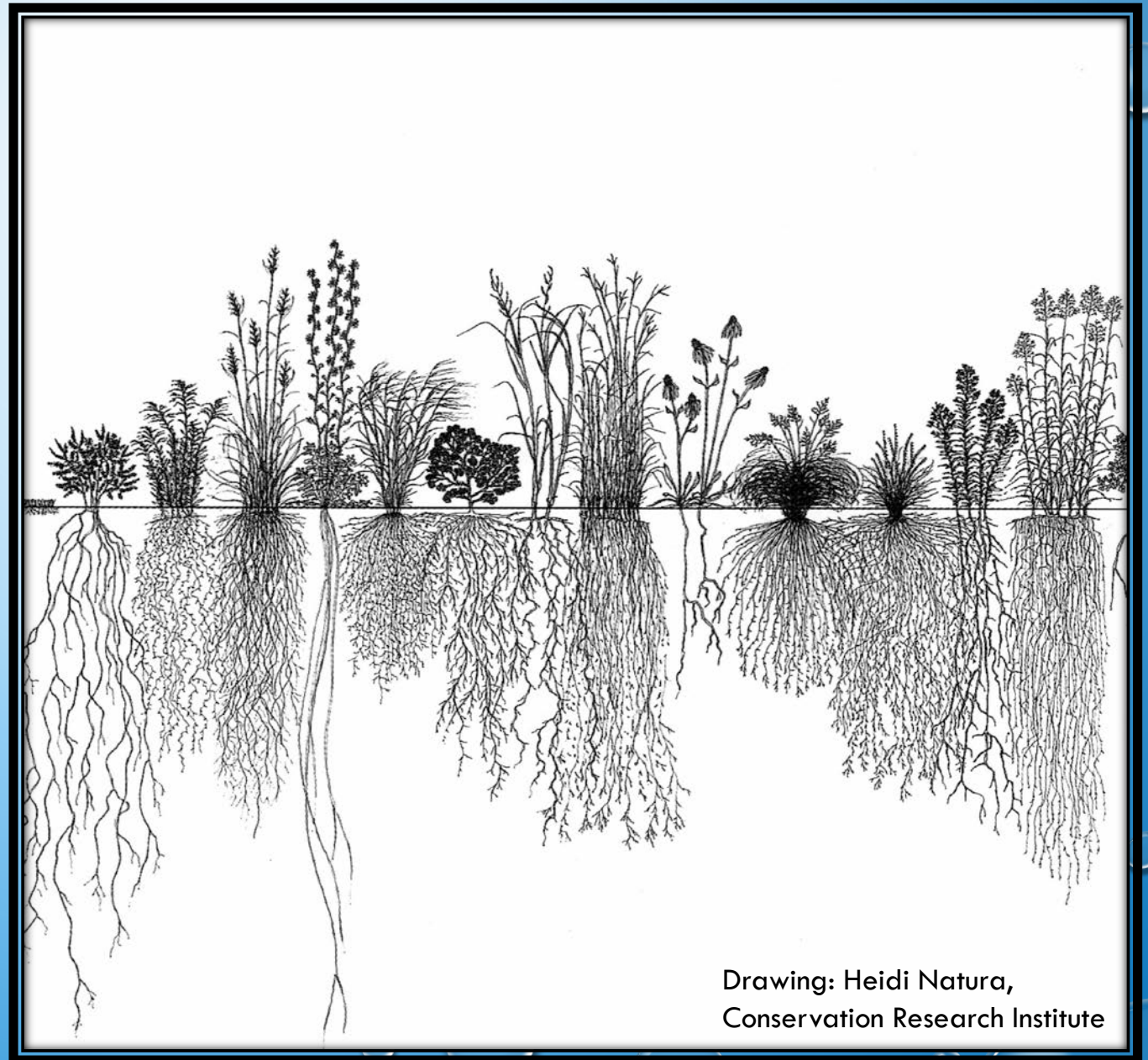






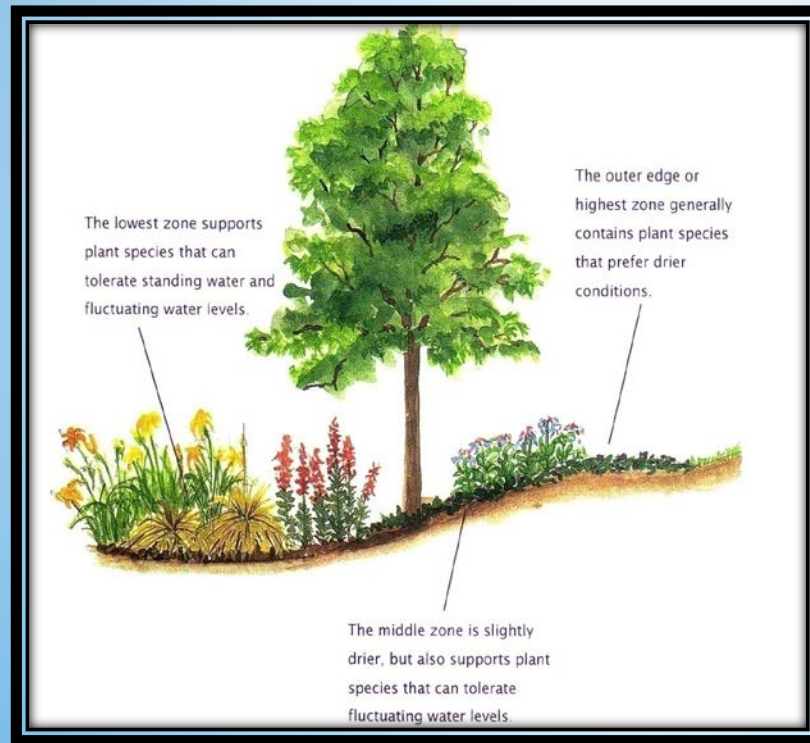
SELECT PLANTS THAT

- HAVE EXTENSIVE ROOT SYSTEMS
- GROW WITHOUT ADDED FERTILIZERS, PESTICIDES, OR OTHER INPUTS
- ARE NOT TOO AGGRESSIVE (INVASIVE)
- FIT THE SITE CHARACTERISTICS
- *AND LOOK GOOD, TOO!*



Drawing: Heidi Natura,
Conservation Research Institute

RIGHT PLANT



- ADAPTABLE TO SITE + SOIL CONDITIONS
- RAIN GARDEN ZONES
- COLOR, FORM AND TEXTURE
- SEASONAL INTEREST
- GARDEN STYLE AND DESIGN



Native Plants for New England Rain Gardens

This plant list includes native plant species and cultivars that are adaptable, available, and have been widely successful in our northern New England region. It is a place to begin, but it is not intended to be a comprehensive list of all plants that may be used in rain gardens. Plant enthusiasts may want to consult other resources and try new plants on their own, but those who want a "Tried and True" list of plants to choose from may find all that they need right here. We use natives because rain gardens may border natural areas and we want to avoid introducing new non-native plants into the environment.

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RAIN GARDEN PLANTING ZONE

The plant list identifies the ideal rain garden planting zone for each plant (characterized by soil moisture).

BASE: Periodic or frequent standing water may keep the root zone wet for several days at a time. After the initial establishment period, Base Zone plants should also be tolerant of dry periods up to two weeks during the growing season.

SLOPE: Periodically wet or saturated soils during larger storms. Plants in the Slope Zone can help to protect against erosion once established. Shallow residential rain gardens may not have a definitive slope zone.

BERM: Drier soils, infrequently subject to inundation or saturation. This zone may be a raised berm or simply the perimeter of the rain garden. Plants should be quite drought tolerant and blend into the existing landscape of the site.

OTHER CONSIDERATIONS

Exposure - Plants are adapted to either full sun (≥ 6 hours of direct sunlight), partial sun (3-6 hours of direct sunlight), or full shade (≤ 3 hours of direct sunlight). Consider that some areas of the garden may be sunny and some made be shady and that the exposure may change throughout the seasons.

Soil Moisture - Clay soils tend to stay wet for longer periods than sandy, well-drained soils. There is also variation in soil moisture preferences to choose plants that tolerate the conditions in your rain garden and to place them in the proper zone.

Plant Spacing - Mature size is given as a range because it varies greatly depending on cultivars and environment. The height and spread (width) of each plant is listed. Space plants to allow them to grow to their full size. Consider placing taller plants in the center or back of the garden with shorter plants layered under or in front of them. Ground covers work well on the berm.

Bloom Period & Color - Consider how different colored flowers will complement each other in the garden. Select plants with early, middle, and late season blooms to provide interest and support pollinators throughout the season.

USDA Hardiness Zone - The USDA Plant Hardiness Zone is the standard used to indicate which plants can survive the winter based on the average annual minimum winter temperature for a given location. New England hardiness zones range from 3 in the northern parts of the region to 7 in the southern and coastal areas.

PLANT LIST KEY

-  Full Sun Exposure
 -  Partial Sun Exposure
 -  Shade
 -  Attracts bees
 -  Attracts butterflies
 -  Attracts birds
 -  Attracts hummingbirds
- Soil Moisture Preference:
-  Dry
 -  Medium
 -  Moist







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Scientific Name Common Name	Rain Garden Zone			Soil Moisture	Light Exposure	Bloom Period & Color					Mature Size				
	Base	Slope	Berm			May	June	July	Aug	Sept	Oct	Height (feet)	Spread (feet)		
 Eutrochium (formerly Eupatorium) purpureum Sweet Joe Pye weed	•			Moist	Full Sun			Red	Red	Red			3-6'	3'	
 Gentiana clausa Closed gentian or Meadow bottle gentian	•			Moist	Partial Sun			Blue	Blue				1-3'	1-2'	
 Geranium maculatum Spotted crane's bill		•		Moist	Partial Sun		Purple	Purple	Purple	Purple			1'	1-2'	
 Helenium autumnale Common sneezeweed	•			Moist	Full Sun			Yellow	Yellow				2-5'	3'	
 Iris versicolor Blue iris or Blue flag	•			Moist	Full Sun		Blue						2-3'	2'	
 Lobelia cardinalis Cardinal flower	•			Moist	Full Sun			Red	Red	Red			2-4'	2'	3-8'

For planting near the rain garden inlet and outlet.

 Lobelia will often reseed itself and migrate in the garden.

FAVORITE PLANTS FOR RAIN GARDENS

SHRUBS – “FIVE THAT THRIVE”

- REDTWIGGED DOGWOOD
- WINTERBERRY
- BLUEBERRY
- SUMMERSWEET CLETHRA
- BUTTONBUSH



RED-TWIGGED DOGWOOD

- SUCKERING SHRUB, 6-8'
- WET TO DRY SOILS
- SUN TO PARTIAL SHADE
- PRUNE HARD IN LATE SPRING





WINTERBERRY

- SLOW GROWING
- 5-10' TALL
- SAME SUN, SOIL PREFERENCES
- NEED MALE POLLINATOR



BLUEBERRY

- LOWBUSH OR HIGHBUSH
- WET TO DRY, ACID SOILS



SUMMERSWEET

CLETHRA

- SUN TO PART SHADE
- TOLERATES FLOODING AND SALT
- WHITE OR PINK FLOWERS, LATE SUMMER
- 4-8' TALL AND WIDE, SUCKERS





Photo: FoundintheFells.com

BUTTONBUSH

- CAN TOLERATE FLOODING
- ? DROUGHT
- 5-10' TALL, COARSE
- UNIQUE FLOWER CLUSTERS,
WHITE TO PINKISH

MORE NATIVE SHRUBS AND GROUNDCOVERS

RED OR BLACK CHOKEBERRY

SILKY DOGWOOD

WITCHHAZEL

NANYBERRY

ARROWWOOD

AMERICAN CRANBERRYBUSH

NORTHERN BAYBERRY

SWEETFERN

BEARBERRY



FAVORITE PLANTS FOR RAIN GARDENS

“EIGHT GREAT” PERENNIALS

- IRONWEED
- JOE PYE WEED
- NEW ENGLAND ASTER
- BLAZINGSTAR
- BLUE FLAG IRIS
- FALSE BLUE INDIGO
- TURTLEHEAD
- MARSH MARIGOLD



SWEET JOE-PYE

- TALL ERECT PLANT
- DWARF CULTIVARS 'BABY JOE', 'CHOCOLATE'
- MOIST SOILS



IRONWEED

- TALL ERECT PLANT
- LATE SUMMER BLOOM
- CAN TOLERATE WET SOIL



NEW ENGLAND ASTER

- LATE SUMMER, FALL BLOOM
- TALL PLANTS, KEEP IN CENTER



BLAZINGSTAR

- MID-SUMMER BLOOM
- 3' TALL AND NARROW
- PURPLE SPIKES



BLUE FLAG IRIS

- WET SOILS, ADAPTABLE
- SUN TO PART SHADE



BLUE WILD INDIGO

- SUN TO PART SHADE
- SHRUBBY LEGUME
- BLUE FLOWERS, BLACK PODS



WHITE TURTLEHEAD

- WHITE FLOWERS CONTRAST WITH DARK GREEN FOLIAGE
- MOIST SOILS
- RHIZOMATOUS



MARSH MARIGOLD

- SHORT, SPREADING LOW LAYER
- YELLOW BLOOM EARLY SPRING, SUMMER DORMANT



NATIVE GRASSES FOR RAIN GARDENS

LITTLE BLUESTEM

- 2-3' CLUMPING GRASS
- MEDIUM – DRY SOIL
- FALL COLOR, TEXTURE



SWITCHGRASS

- TOUGH, ADAPTABLE (WET TO DRY)
- 3-6' TALL, DEEP ROOTS
- NEW CULTIVARS





GROUNDCOVERS FOR MOIST SOILS

- FERNS
- SEDGES (CAREX SPP.)
- RUSHES (JUNCUS SPP.)



TREES FOR RAIN GARDENS?

- RIVER BIRCH
 - FOX VALLEY OR LITTLE RIVER DWARF VARIETY
- SERVICEBERRY
- WITCHAZEL



BIOFILTRATION RAIN GARDENS







Did water flow too fast, creating rills or gullies or washing soil from around plants?

Replace/add plants

Build up berm or add rocks



