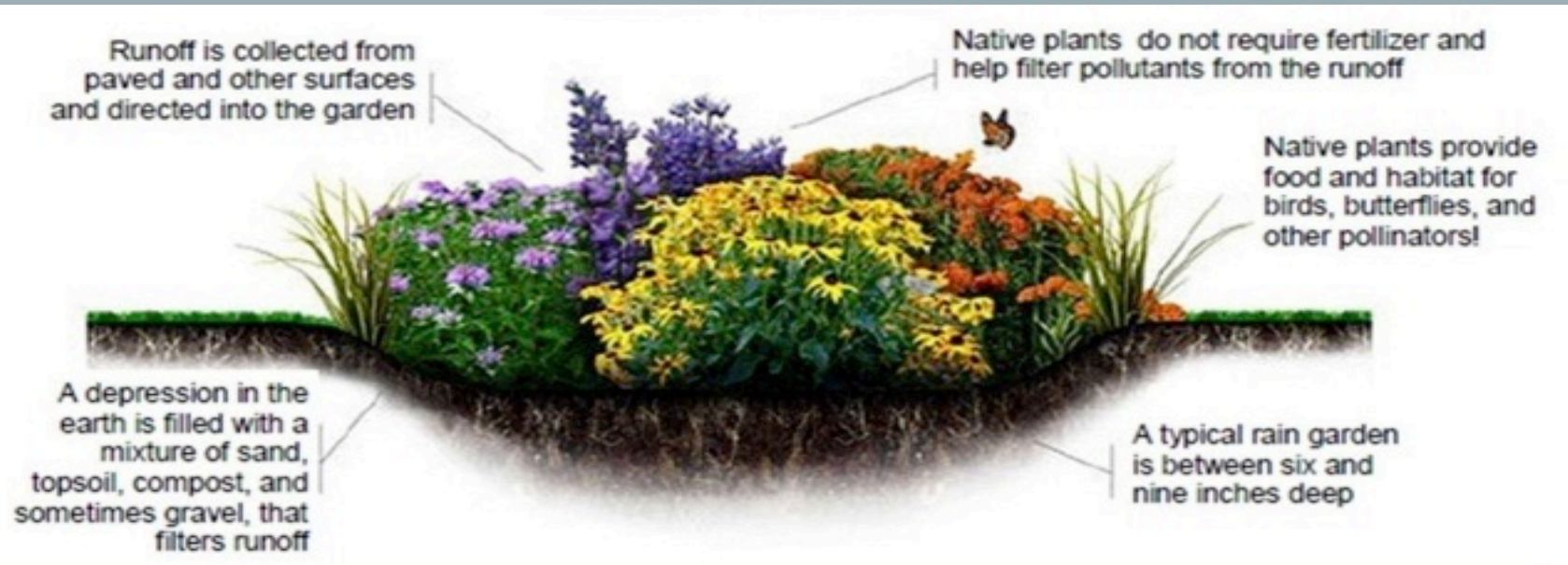
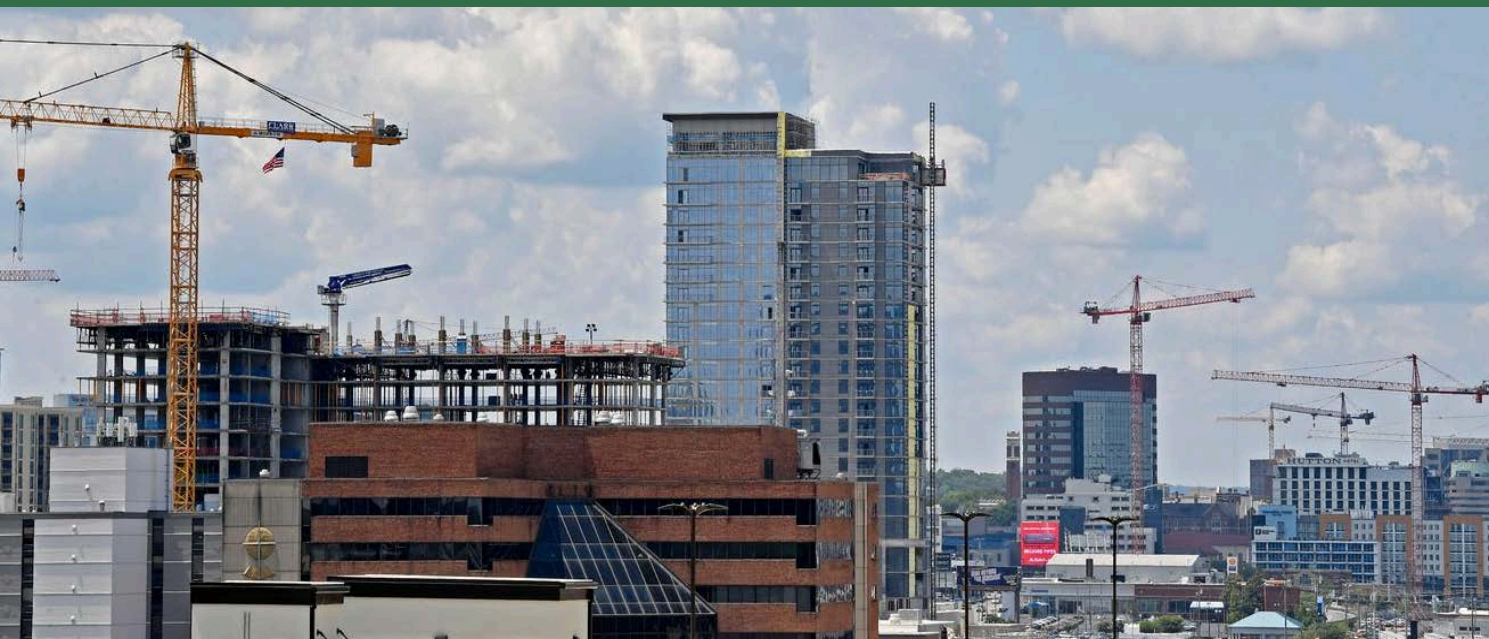


WHAT IS IT?



WHY IS IT NEEDED?





day, July 24, 2019, in





WHERE IS IT
NEEDED?







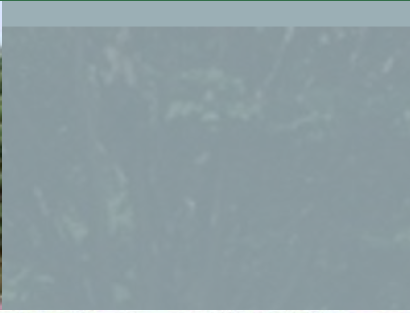


Photo By: [RainDogDesigns.com/wordpress](https://raindogdesigns.com/wordpress)



Photo By: RainDogDesigns.com/wordpress

RainDogDesigns.com/wordpress



Photo By: RainDogDesigns.com/wordpress

RainDogDesigns.com/wordpress



Any rain garden is a good rain garden





WHERE IS IT
NEEDED?



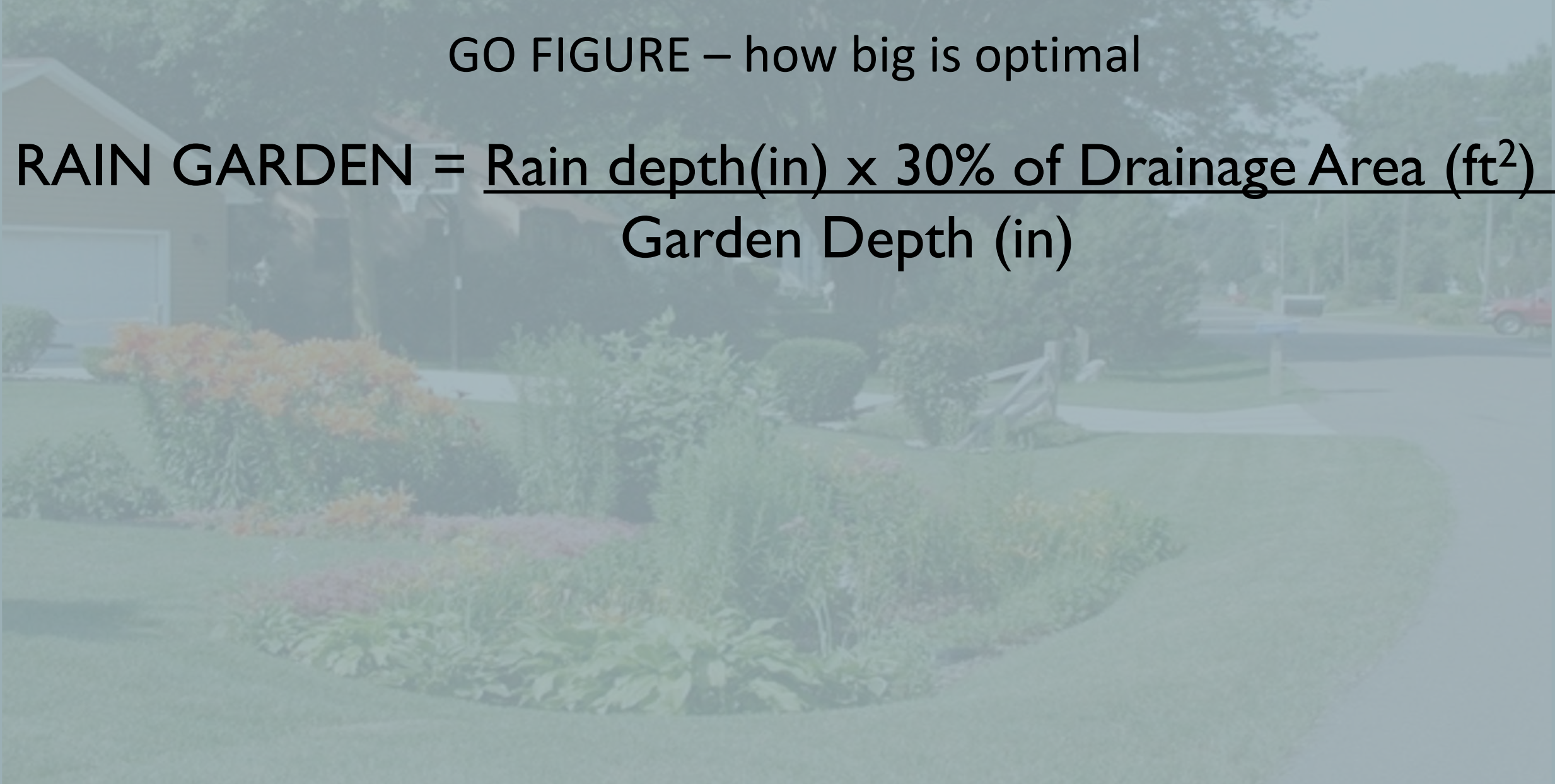
RULE OF THUMB



- Nashville has clay to loamy clay soil & rocks
- Clay soil indicates a need for 30% of catchment area for a rain garden
- Rain garden target depth in clay soil is 12-18"
- Utilities are buried 18-24" deep
- Call 811 before digging
- Most rainfalls in Nashville area are 1-1.5"
- Keep rain gardens 10' away from foundation
- Rain gardens need 3-5" of pooling space

GO FIGURE – how big is optimal

$$\text{RAIN GARDEN} = \frac{\text{Rain depth(in)} \times 30\% \text{ of Drainage Area (ft}^2\text{)}}{\text{Garden Depth (in)}}$$



SIZING IT UP – how big is optimal

$$\text{RAIN GARDEN} = \frac{\text{Rain depth(in)} \times 30\% \text{ of Drainage Area (ft}^2\text{)}}{\text{Garden Depth (in)}}$$

$$\text{RAIN GARDEN} = \frac{1 \text{ in} \times 1000 \text{ ft}^2}{12''} = 83\text{ft}^2 = 3.0 \text{ (yd}^3\text{)}$$

SIZING IT UP – how big is optimal

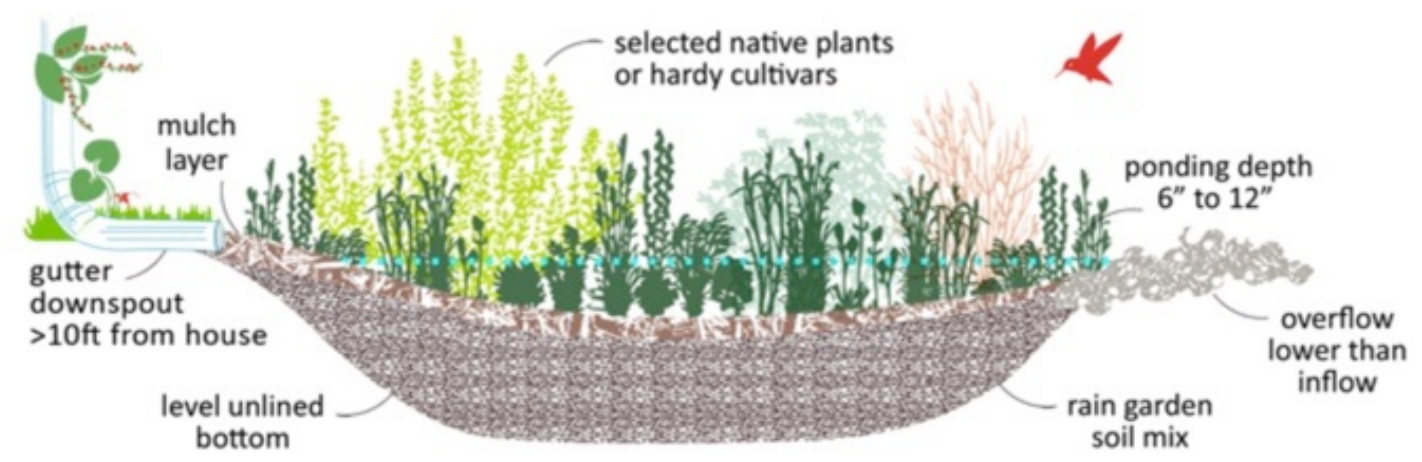
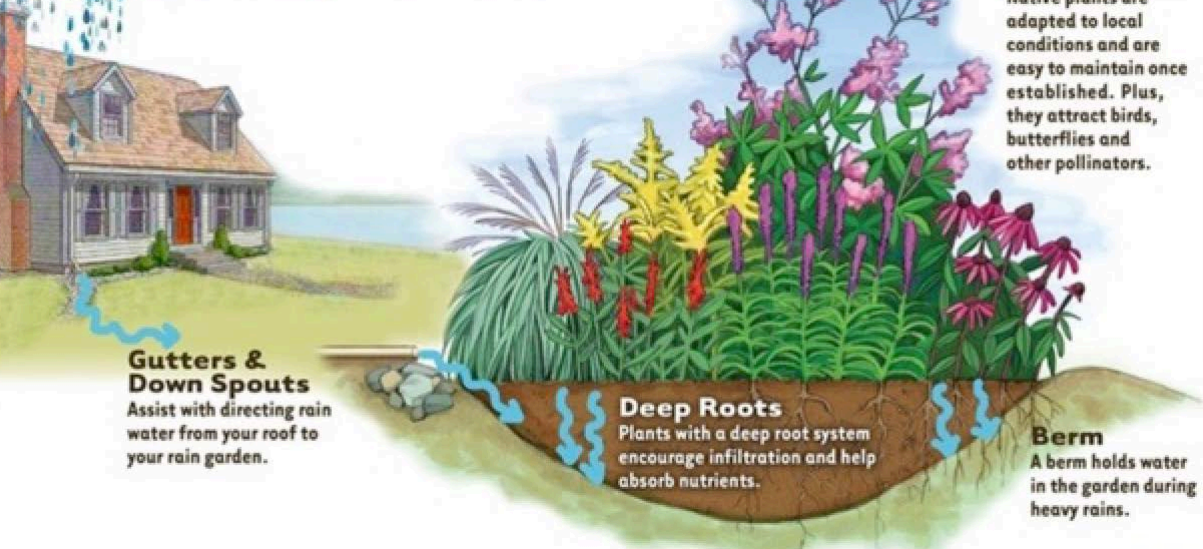
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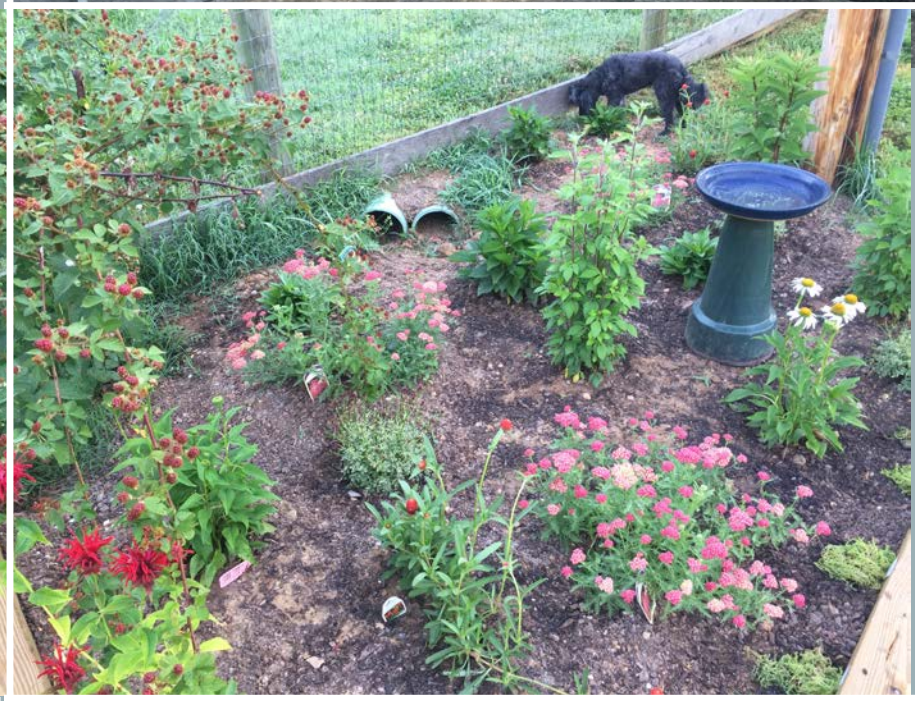
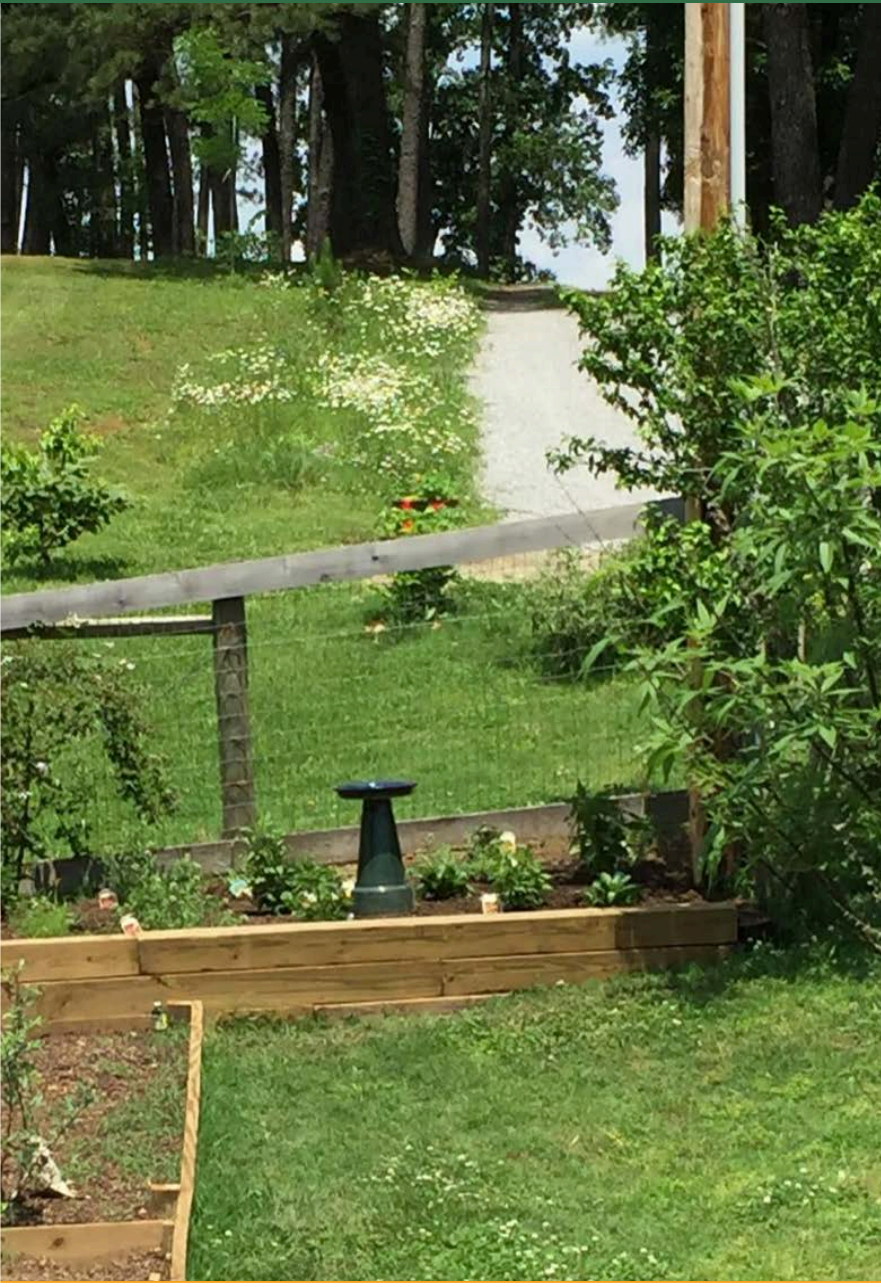
$$\text{RAIN GARDEN} = \frac{1 \text{ in} \times 1000 \text{ ft}^2}{12''} = 83\text{ft}^2 = 3.0 \text{ (yd}^3\text{)}$$

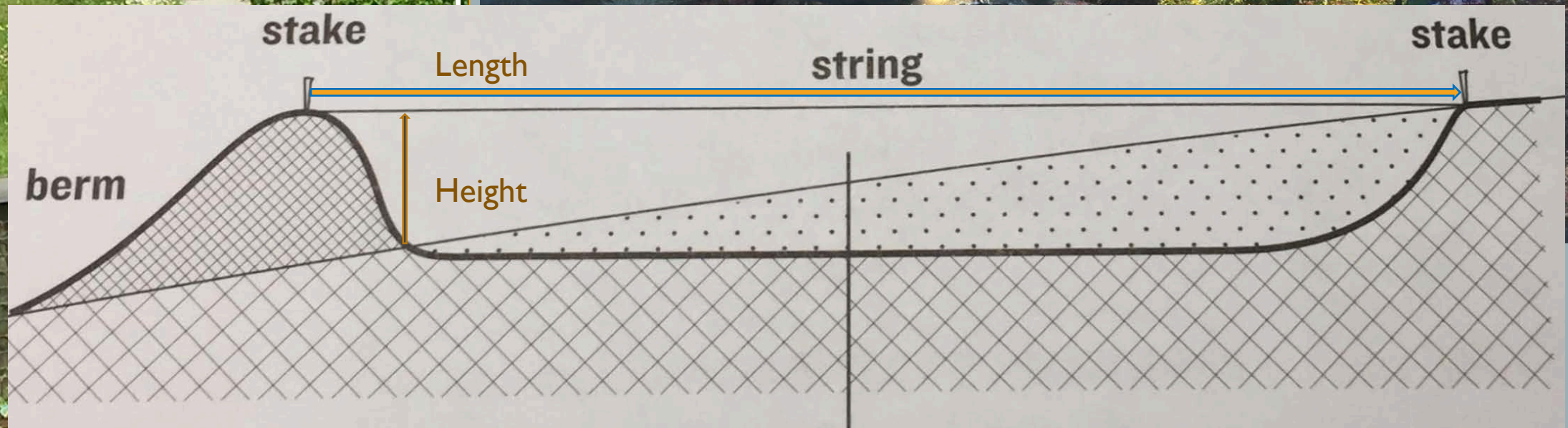
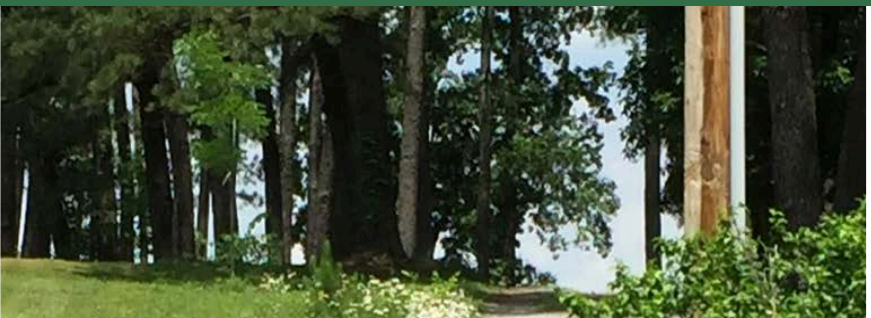
2.3 cu yd of fill = 2 scoops of material from Bates

WATER IN – WATER OUT

How does a rain garden work?







$$\frac{\text{Length}}{\text{Width}} \times 100 = \% \text{ slope}$$

TOOLS YOU WILL NEED

Shovel

Digging fork

Wheelbarrow

Mattock or pick

Possibly a rock bar

Garden rake

String or hose and marking paint

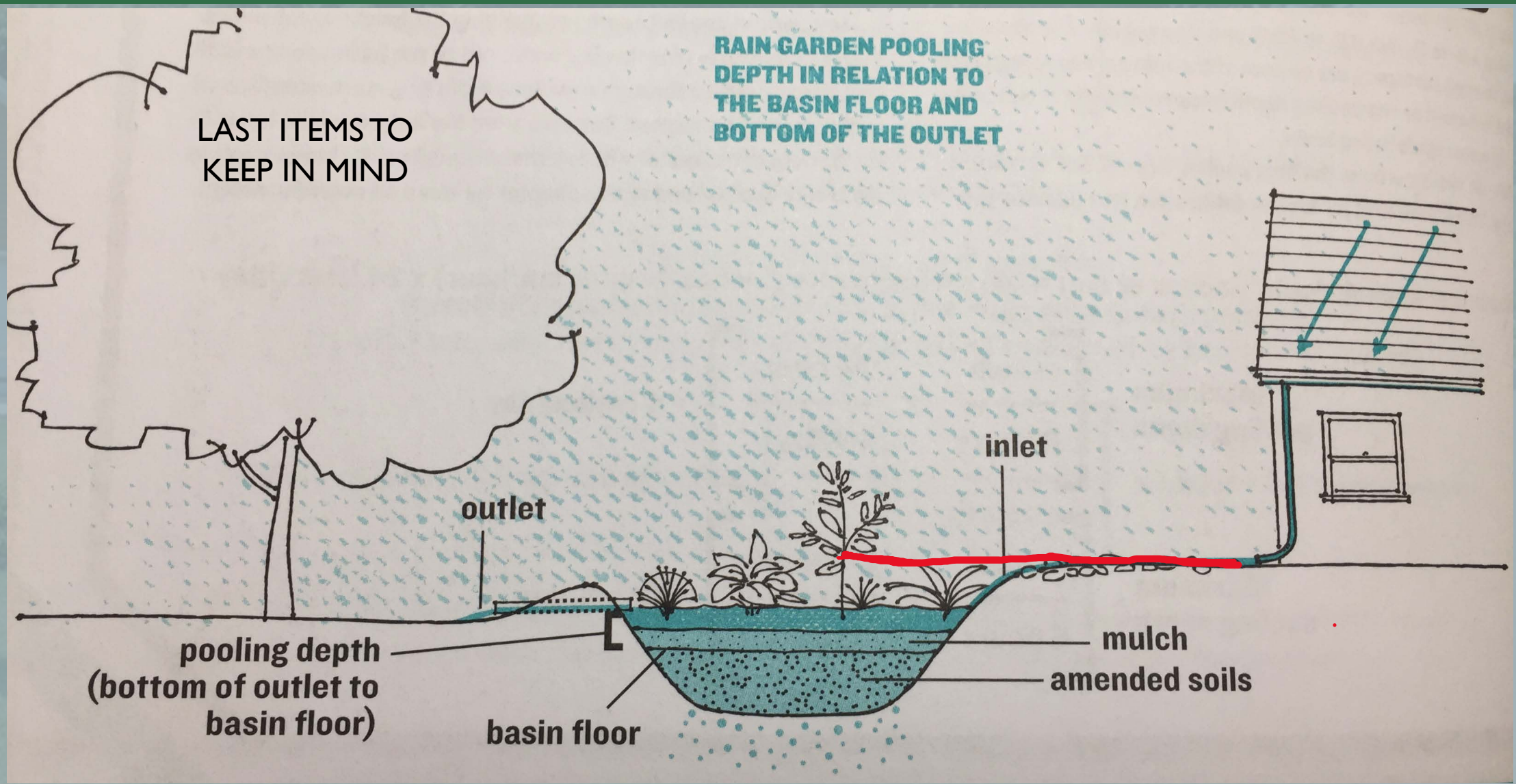
Tape measure

String or laser level



**RAIN GARDEN POOLING
DEPTH IN RELATION TO
THE BASIN FLOOR AND
BOTTOM OF THE OUTLET**

LAST ITEMS TO
KEEP IN MIND



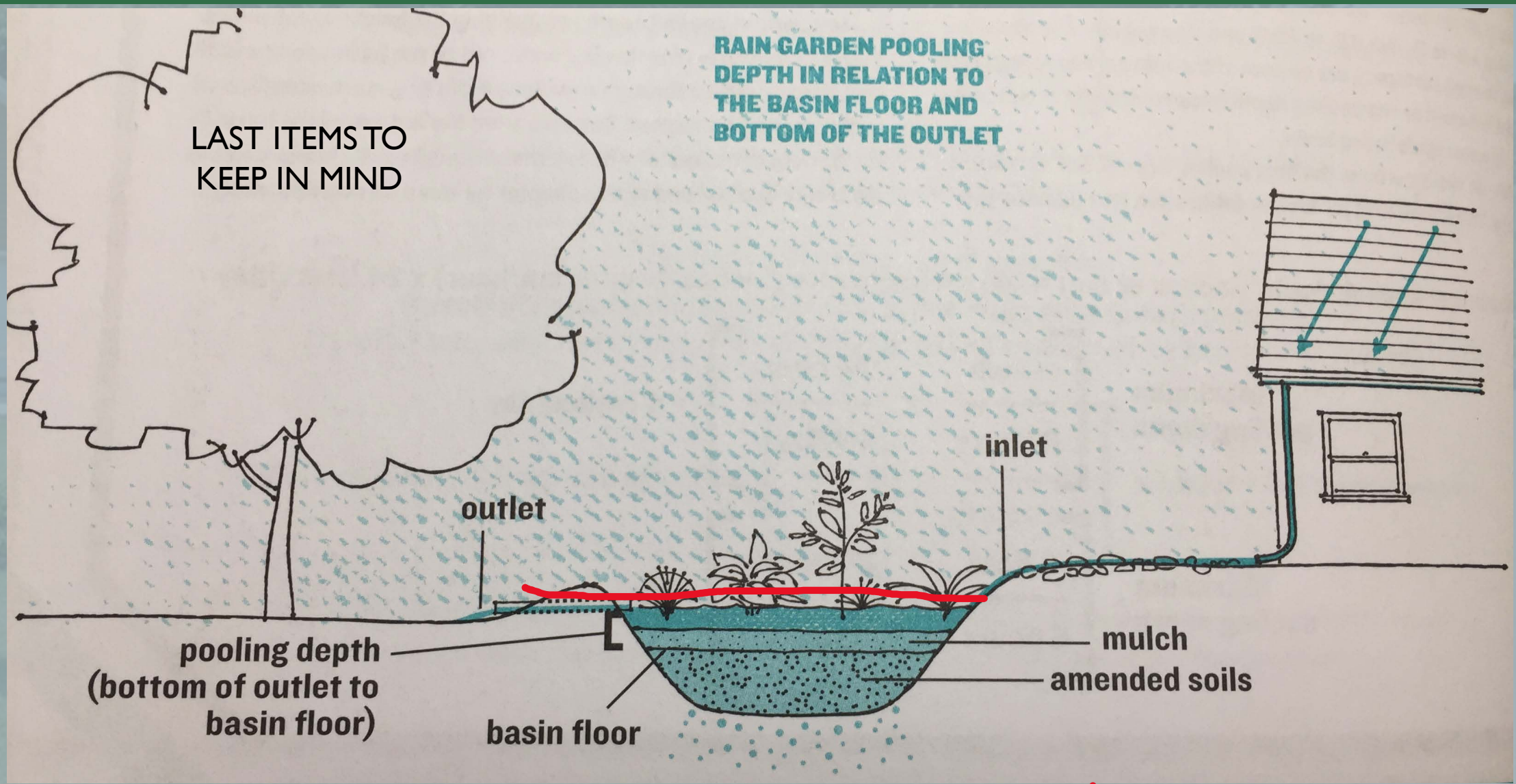
pooling depth
(bottom of outlet to
basin floor)

outlet

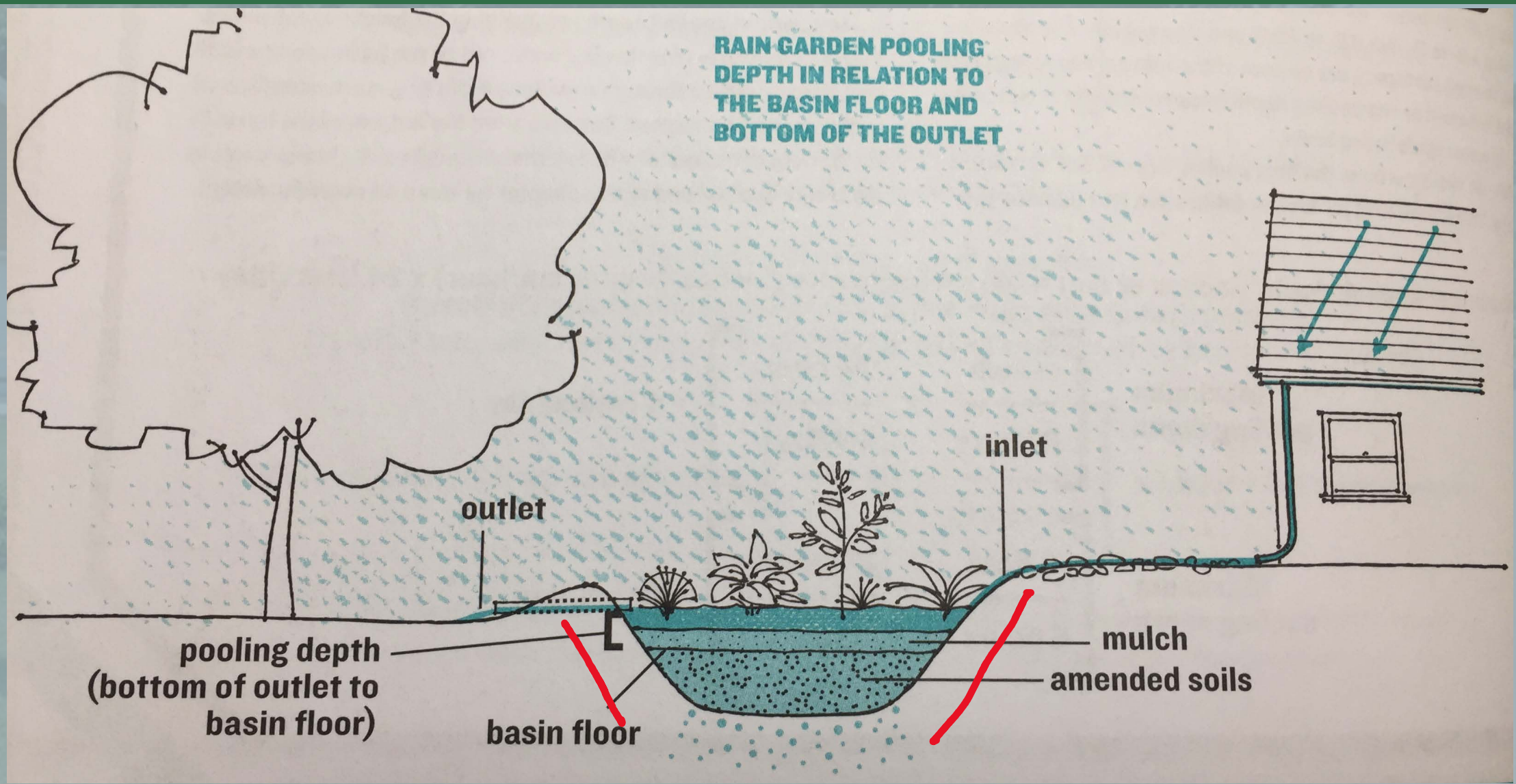
basin floor

inlet

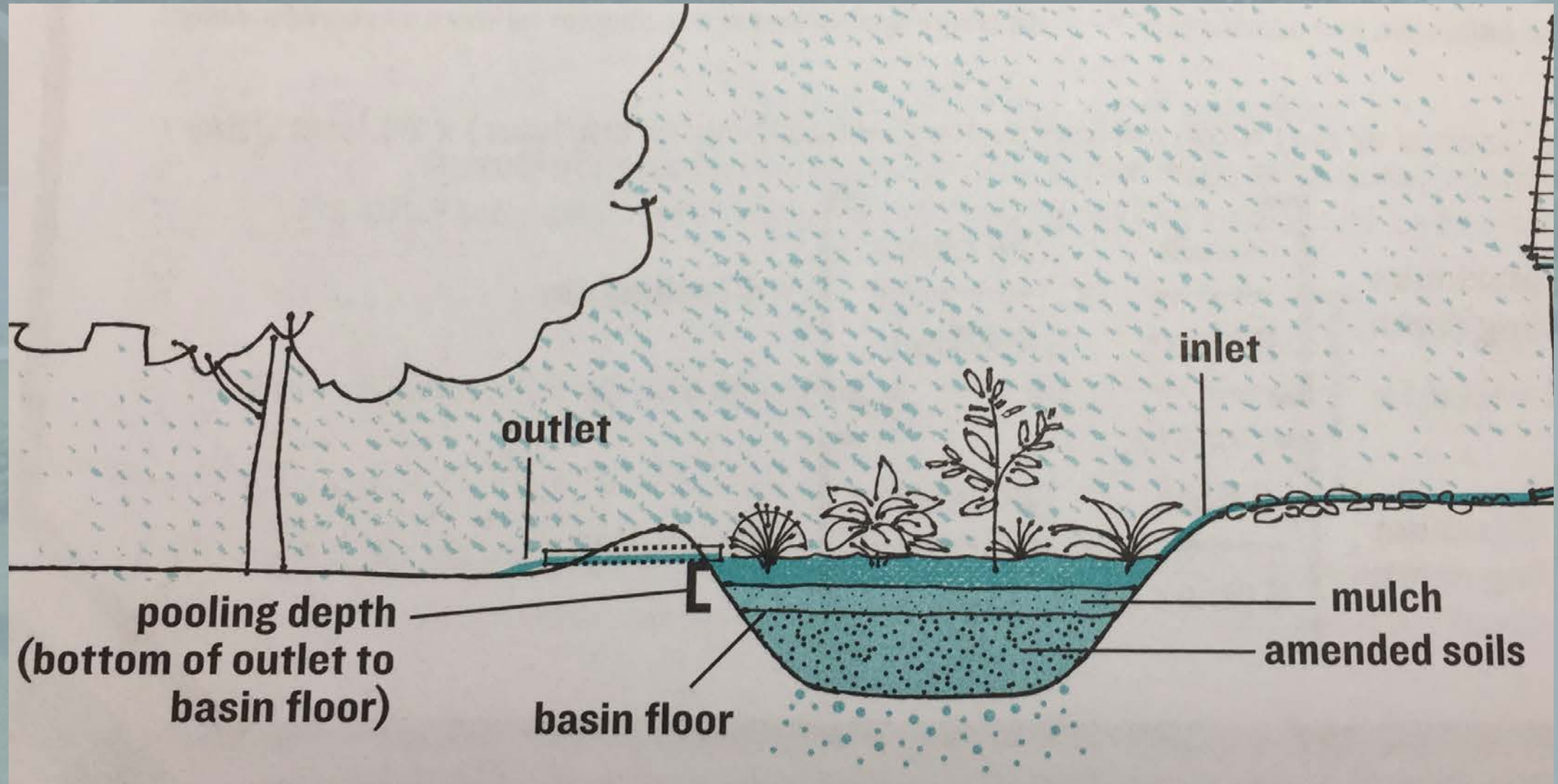
mulch
amended soils



**RAIN GARDEN POOLING
DEPTH IN RELATION TO
THE BASIN FLOOR AND
BOTTOM OF THE OUTLET**

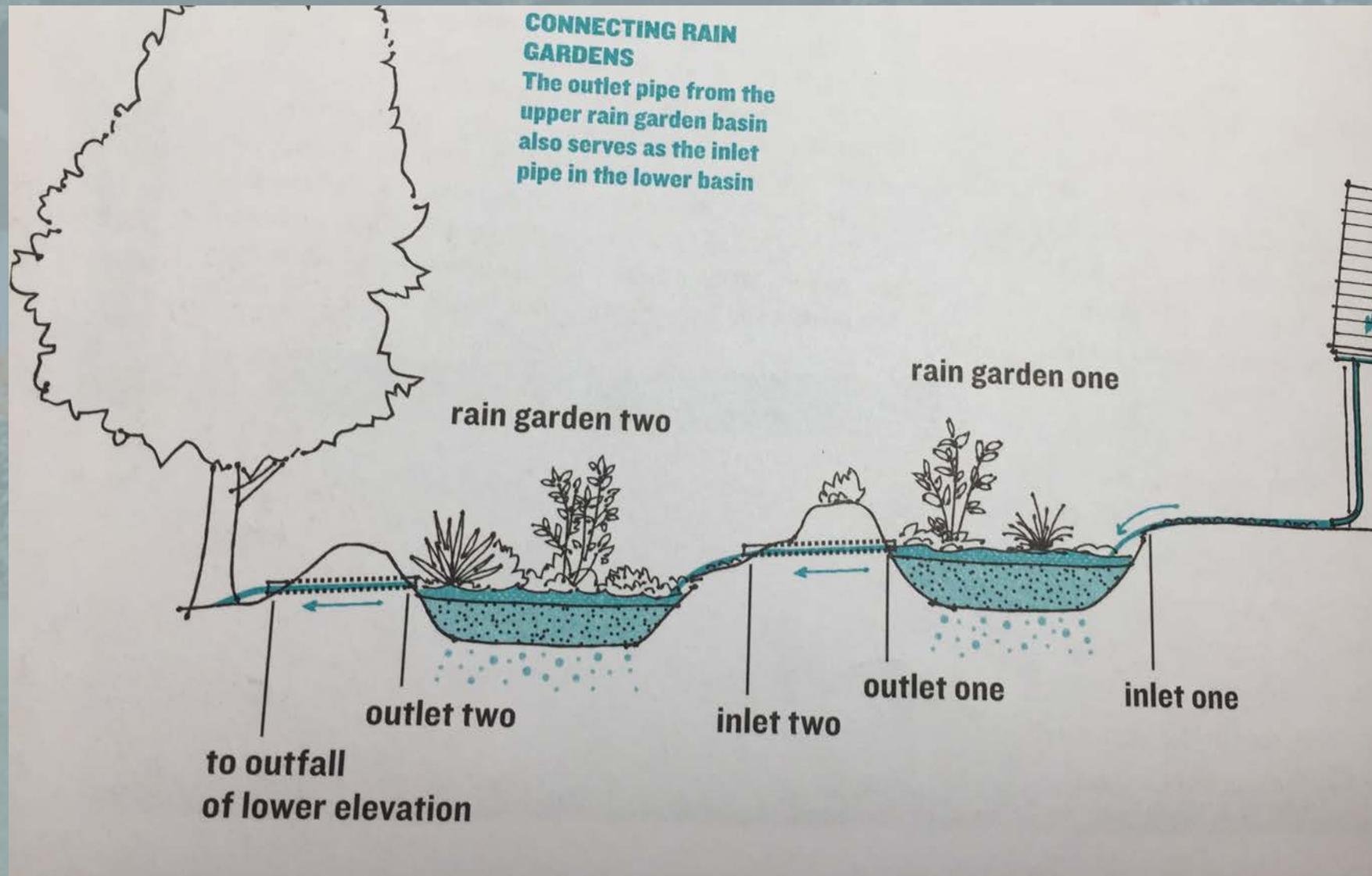








Screenshot



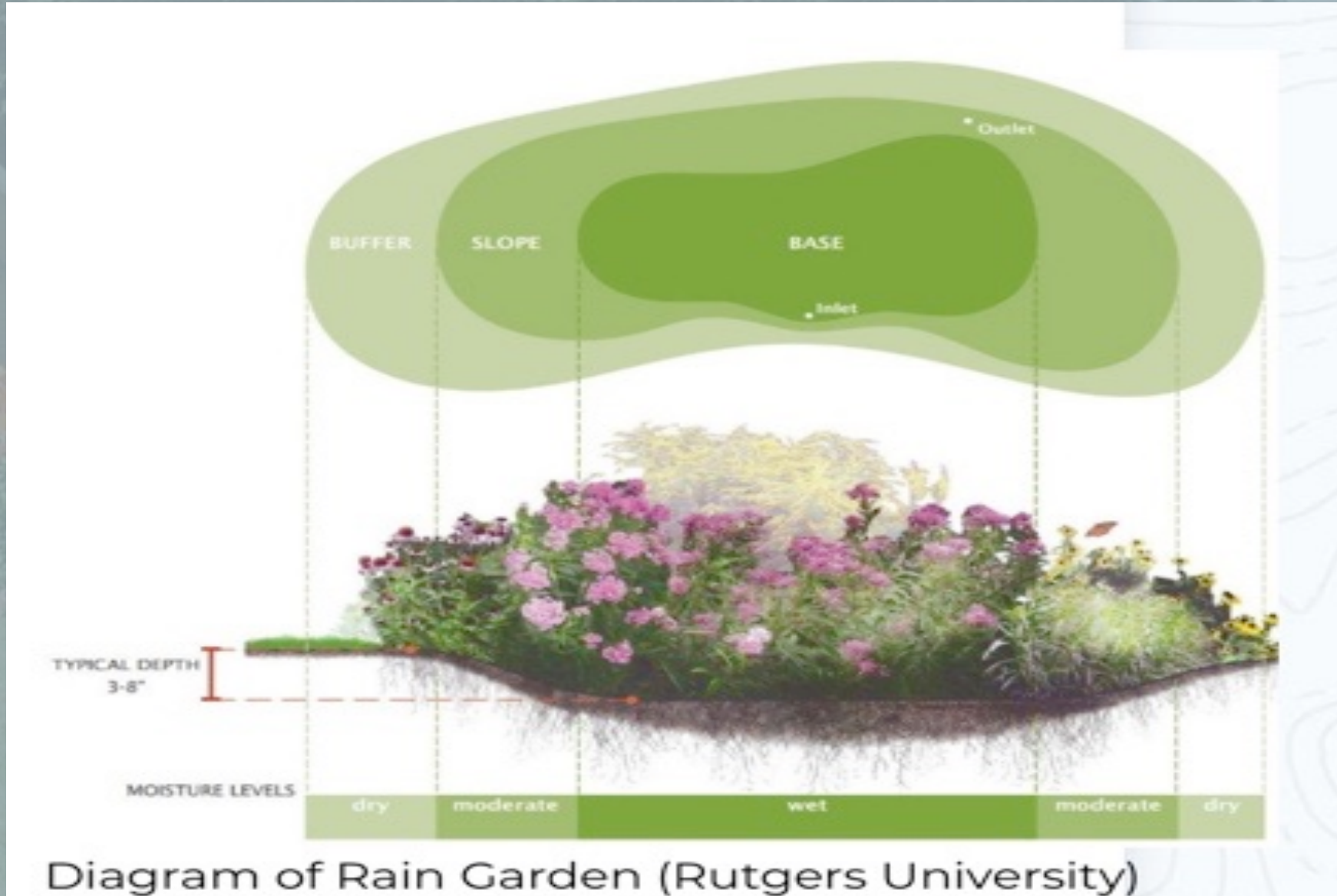


Diagram of Rain Garden (Rutgers University)

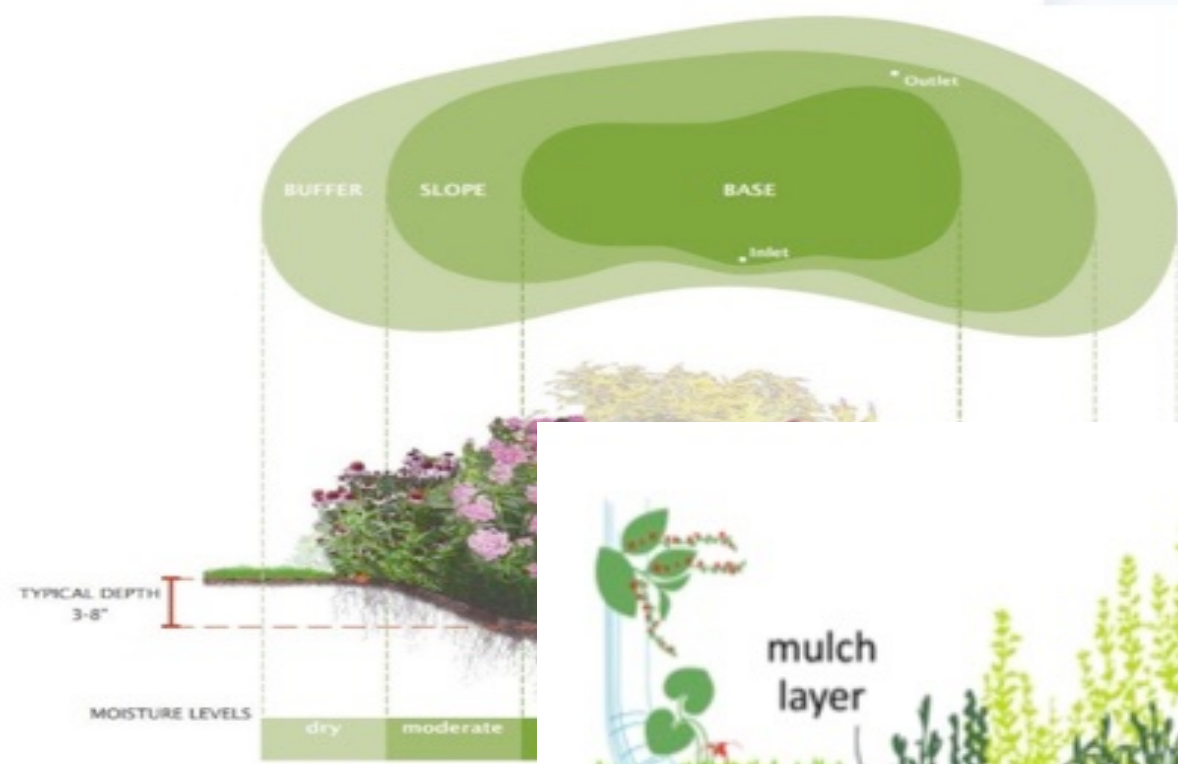
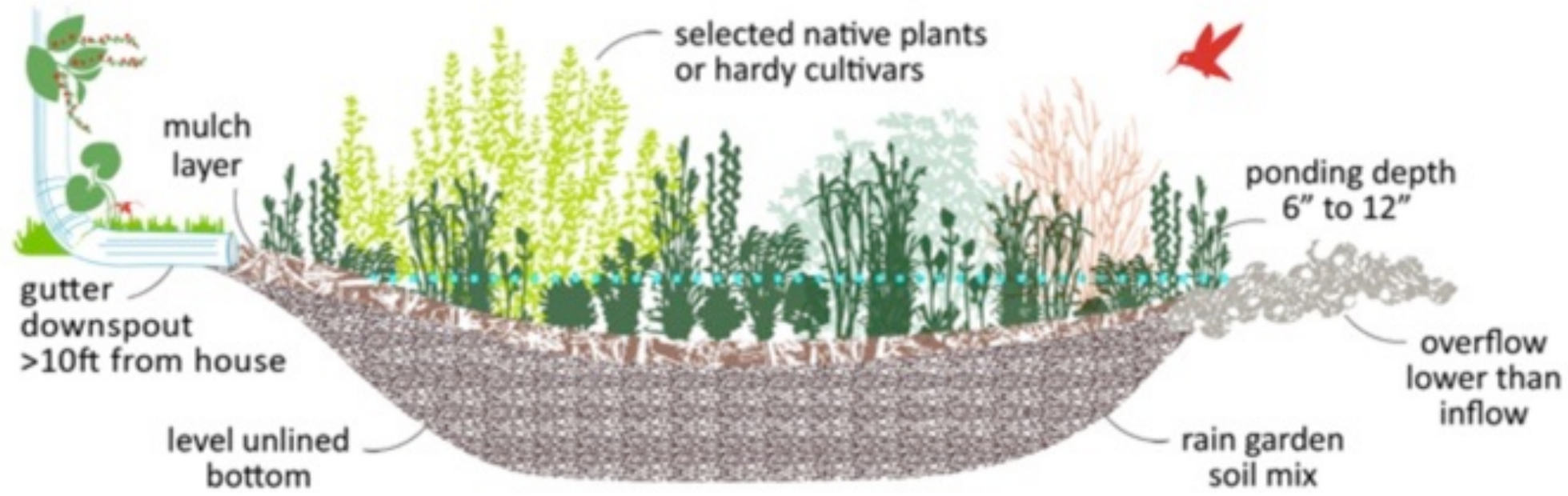
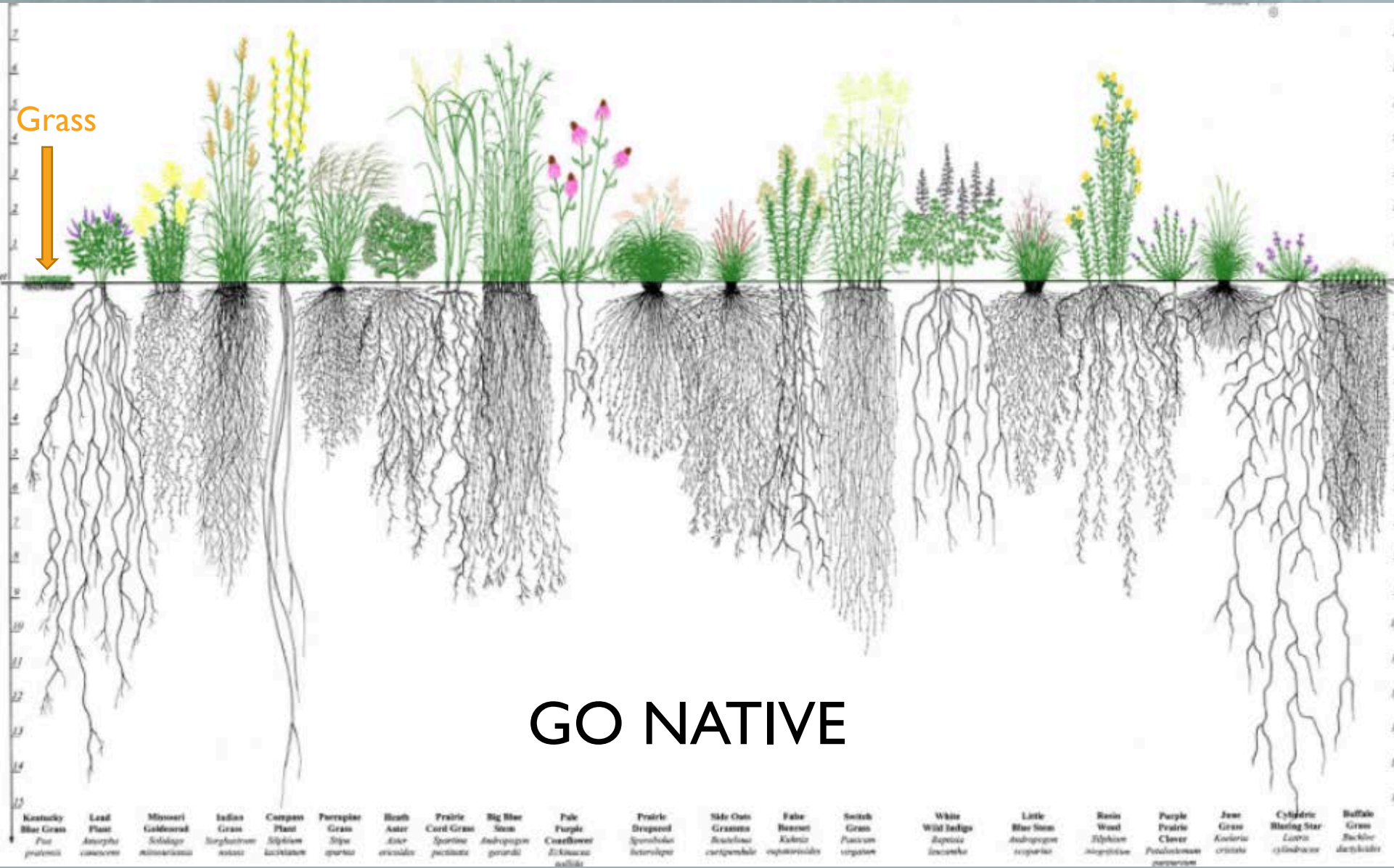


Diagram of Rain Garden





10 x 20 Sun Garden

1	Cephalanthus occidentalis	Buttonbush	2 gal.
7	Ilex glabra compacta	Dwarf Inkberry	2 gal.
PERENNIALS			
7	Asclepias syriaca	Common Milkweed	plugs-1 gal
3	Asclepias verdis	Green Milkweed	plugs-1 gal
7	Coreopsis lanceolata	Lance-leaf Coreopsis	plugs-1 gal
14	Echinacea purpurea	Purple Coneflower	plugs-1 gal
13	Iris virginica sherevi	Blue Flag Iris	plugs-1 gal
8	Monarda didyma	Bee Balm	plugs-1 gal
14	Rudbeckia hirta	Black-eyed Susan	plugs-1 gal
GRASSES & SEDGES			
17	Carex stricta	Tussock Sedge	plugs-1 gal

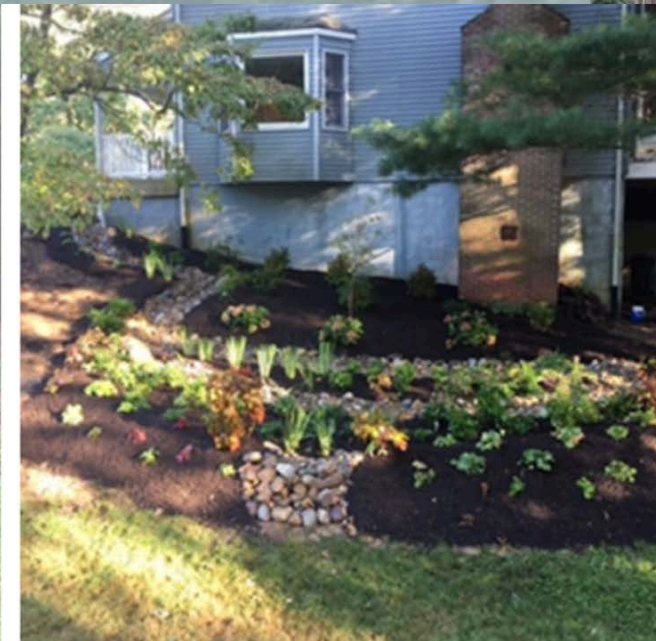
10 x 20 Partial Sun/Shade Garden

TREES			
1	Cercus canadensis	Redbud	1-2" cal.
SHRUBS			
3	Itea virginica	Virginia Sweetspire	2 gal.
PERENNIALS			
4	Aster novea-angliae	New England aster	plugs-1 gal.
9	Coreopsis major	Tickseed coreopsis	plugs-1 gal.
6	Heuchera americana	Alumroot	plugs-1 gal.
8	Lobelia cardinalis	Great blue lobelia	plugs-1 gal.
12	Lobelia siphilicata	Cardinal flower	plugs-1 gal.
4	Osmunda cinnamomea	Cinnamon Fern	plugs-1 gal.
13	Phlox divaricata	Blue phlox	plugs-1 gal.
5	Polystichum acrostichoides	Christmas fern	plugs-1 gal.
7	Stylophorum diphyllum	Wood poppy	plugs-1 gal.

BEFORE



AFTER



**Any Rain Garden
is a Good Rain
Garden**