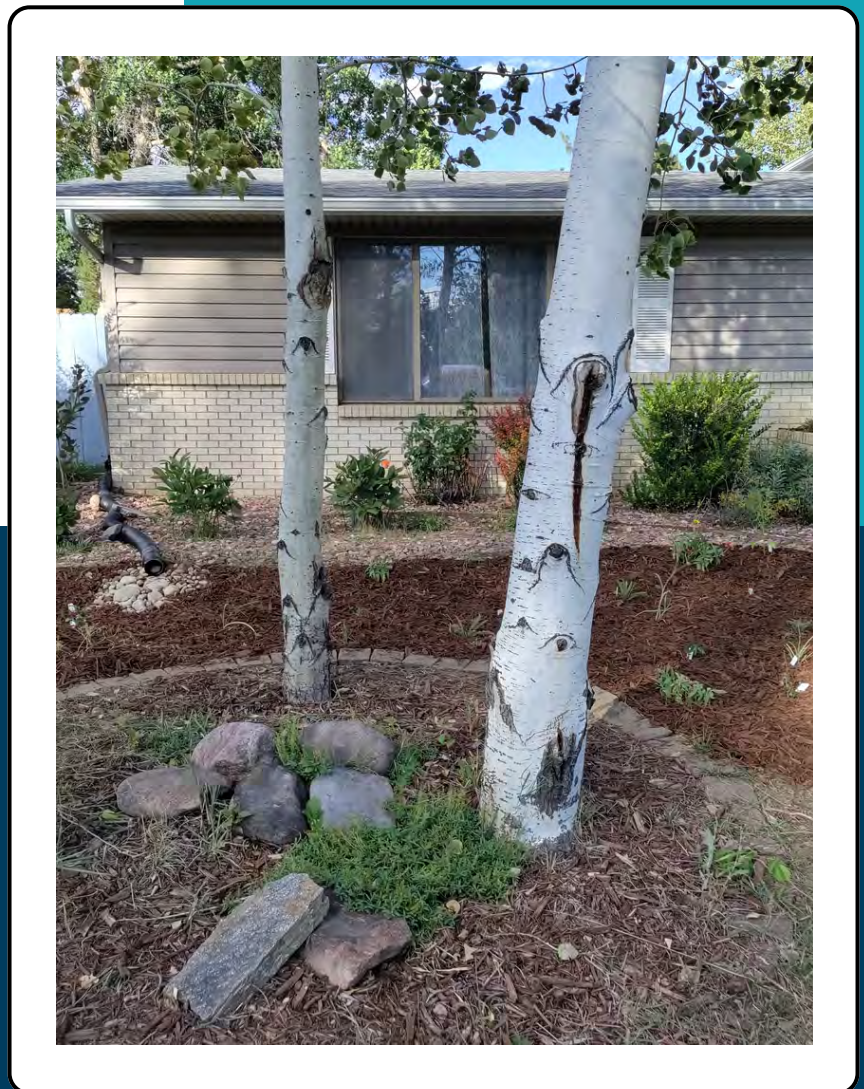


OCTOBER 2022

RESIDENTIAL RAINGARDEN PILOT PROJECT

FULL SHADE PLANTING LAYOUT: 1A



PRODUCED BY

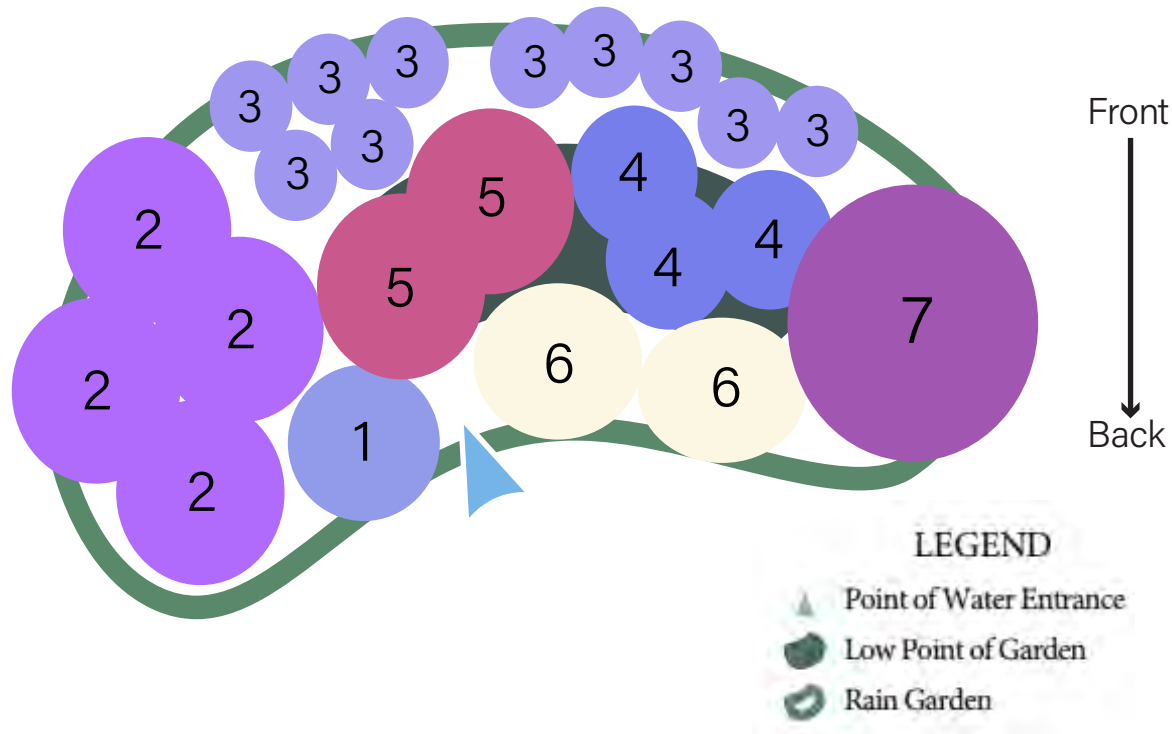


COLORADO
Colorado Water
Conservation Board
Department of Natural Resources



**HORTICULTURE AND
LANDSCAPE ARCHITECTURE**
COLORADO STATE UNIVERSITY

Rain Garden Layout - **Shade** **Design 1A - 50ft²**



- 1 **Aspen Daisy - *Erigeron speciosus***
- 2 **Beebalm - *Monarda fistulosa***
- 3 **Harebells - *Campanula rotundifolia***
- 4 **Rocky Mountain Columbine - *Aquilegia caerulea***
- 5 **Swamp Milkweed - *Asclepias incarnata***
- 6 **White Yarrow - *Achillea lanulosa***
- 7 **Winecups/Poppy Mallow - *Callirhoe involucrata***

FULL SUN 1A SUBSTITUTION LIST

All Plants on list are Native to the Rocky Mountain/Front Range region

	Original Plant	Subsitution	Tier	Dimensions	Color
1	Black-eyed Susan	Stiff Tickseed (<i>Coreopsis palmata</i>)	top	3ft tall, 18" spread	Yellow flowers
		Plains Wallflower (<i>Erysimum asperum</i>)	top	3ft tall, 18" spread	Yellow flowers
2	Blue Gramma	Sideoats Grama (<i>Bouteloua curtipendula</i>)	top	2ft tall, 2ft spread	Foliage purple/green
		Hairy Grama (<i>Chondrosium hirsutum</i>)	top	1.5ft tall, 1.5ft spread	Hairy foliage, fluffy grama seedheads
3	Blue Flax	Rocky Mountain Iris (<i>Iris missouriensis</i>)	low	1.5ft tall, 10" spread	Blue flowers
		Rocky Mountain Columbine (<i>Aquilegia caerulea</i>)	mid/low	1.5ft tall, 1ft spread	Light blue and white flowers
4	Butterfly Weed	Golden Columbine (<i>Aquilegia chrysantha</i>)	low	3.5ft tall, 2ft spread	Yellow flowers
		Orange Sneezeweed (<i>Helenium hoopesii</i>)	low	3ft tall, 2ft spread	Yellow, daisy-like flowers
5	Chocolate Flower	Sulphur Buckwheat (<i>Eriogonum umbellatum</i>)	top	1.5ft tall, 2ft spread	Globe-like yellow flowers
		Blanket Flower (<i>Gaillardia aristata</i>)	top/mid	2.5ft tall, 2ft spread	Daisy-like red and yellow flowers
6	Desert 4 o'Clock	Rosey Pusseytoes (<i>Antennaria rosea</i>)	top	8" tall, spreading groundcover	GROUNDCOVER. pink flowers
		Plains Larkspur (<i>Delphinium var. ollgophylla</i>)	top	1-2ft tall, 2ft spread	pink spike flowers
7	Desert Penstemon	Prairie Coneflower (<i>Ratibida columnifera</i>)	top/mid	2.5ft tall, 2ft spread	Red and yellow flowers with tall seedheads
		Pearly Everlasting (<i>Anaphalis margaritaceae</i>)	top/mid	2.5ft tall, 2ft spread	Clusters of white button-like flowers
8	Firecracker Penstemon	Black-eyed Susan (<i>Rudbeckia hirta</i>)	top/mid	3ft tall, 1.5ft spread	Yellow, daisy-like flowers with dark centers
		Anise Hyssop (<i>Agastache aurantiaca</i>)	top	1.5ft tall, 2.5ft spread	Red/orange flowers
9	Indian Ricegrass	Mountain Muhly (<i>Muhlenbergia montana</i>)	top	1-2ft tall, 1.5ft spread	warm season bunchgrass, 2-6" panicle flower
		Muttongrass (<i>Poa fendleriana</i>)	top	1-2ft tall, 1.5ft spread	hairy seedheads
10	Yellow Indiangrass	Alkali Sacaton (<i>Sporobolus airoides</i>)	top	3.5ft tall, 2ft spread	fine texture, golden/bronze in fall/winter
		Little Bluestem (<i>Schizachyrium scoparium</i>)	top	2.5ft tall, 2ft spread	blue-ish stems turn reddish brown when mature

Tiers:

Top: lowest water requirements, planted along the garden berm

Mid: average water requirement, planted on the sloping sides of the garden

Low: higher water requirements, planted in the basin, roots must withstand wet conditions up to 12 hours

Shade Plant Guide Layout 1A

1. Aspen Daisy (*Erigeron speciosus*)



Mature Height	1-2ft tall with 1-2ft spread, clump growth habit
Care & Water	Once established, water once per week. Deadhead to promote more blooms.
Flowering Time	June-September
Hardiness	Zones 4-7, plant 18" apart
Special Features and Notes	Attracts butterflies and pollinators. Toxic to dogs, cats, and horses. Can survive in elevations up to 11,000 feet!

2. Beebalm (*Monarda fistulosa*)



Mature Height	2-4ft tall and 2-3ft spread
Care & Water	Once established, water once per week. Deadhead to promote blooming.
Flowering Time	May-September
Hardiness	Zones 3-9, plant 18" apart
Special Features and Notes	Attracts bees, butterflies, hummingbirds, and other pollinators. Deer and rabbit resistant. Prone to powdery mildew when overwatered.

3. Harebells/Bluebells (*Campanula rotundifolia*)



Mature Height	1ft tall and 1ft spread, stems are weak and the plant often bends over.
Care & Water	Once established, water once per week.
Flowering Time	June-September, periwinkle color flowers.
Hardiness	Zones 2-7, plant 10" apart

Shade Plant Guide Layout 1A

Special Features and Notes	Attracts hummingbirds. When grown from seed, the plants start blooming the second year.
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4. Rocky Mountain Columbine (*Aquilegia caerulea*)

Mature Height	1-2ft tall with 1ft spread
Care & Water	Once established, water once per week. Deadhead to promote blooming.
Flowering Time	May-July
Hardiness	Zones 3-8, plant 15” apart
Special Features and Notes	Attracts butterflies and hummingbirds. Deer and rabbit resistant with a pleasing scent. Will self seed to form a colony.



5. Swamp Milkweed (*Asclepias incarnata*)

Mature Height	4-5ft tall with 2-3ft spread
Care & Water	Once established, water once per week.
Flowering Time	June-September
Hardiness	Zones 3-11, plant 30” apart
Special Features and Notes	Toxic to dogs, cats, and horses if consumed. Attracts butterflies (especially Monarchs) and hummingbirds. Deer resistant.



6. White Yarrow (*Achillea lanulosa*)

Mature Height	2-3ft tall with 2ft spread
Care & Water	Once established, water once per week.

Shade Plant Guide Layout 1A

Flowering Time	June-mid September
Hardiness	Zones 2-9, plant 18" apart
Special Features and Notes	Flowers and leaves (when crushed) have a pleasant aroma. White yarrow is the original native variety but other varieties bloom yellow, pink, or red.



7. Winecups/Poppy Mallow (*Callirhoe involucrata*)

Mature Height	6in-1ft tall with 3ft spread
Care & Water	Once established, water once per week.
Flowering Time	March-June
Hardiness	Zones 4-8, plant 3ft apart
Special Features and Notes	Ornate foliage that is attractive when not in bloom. Attracts butterflies and hummingbirds.