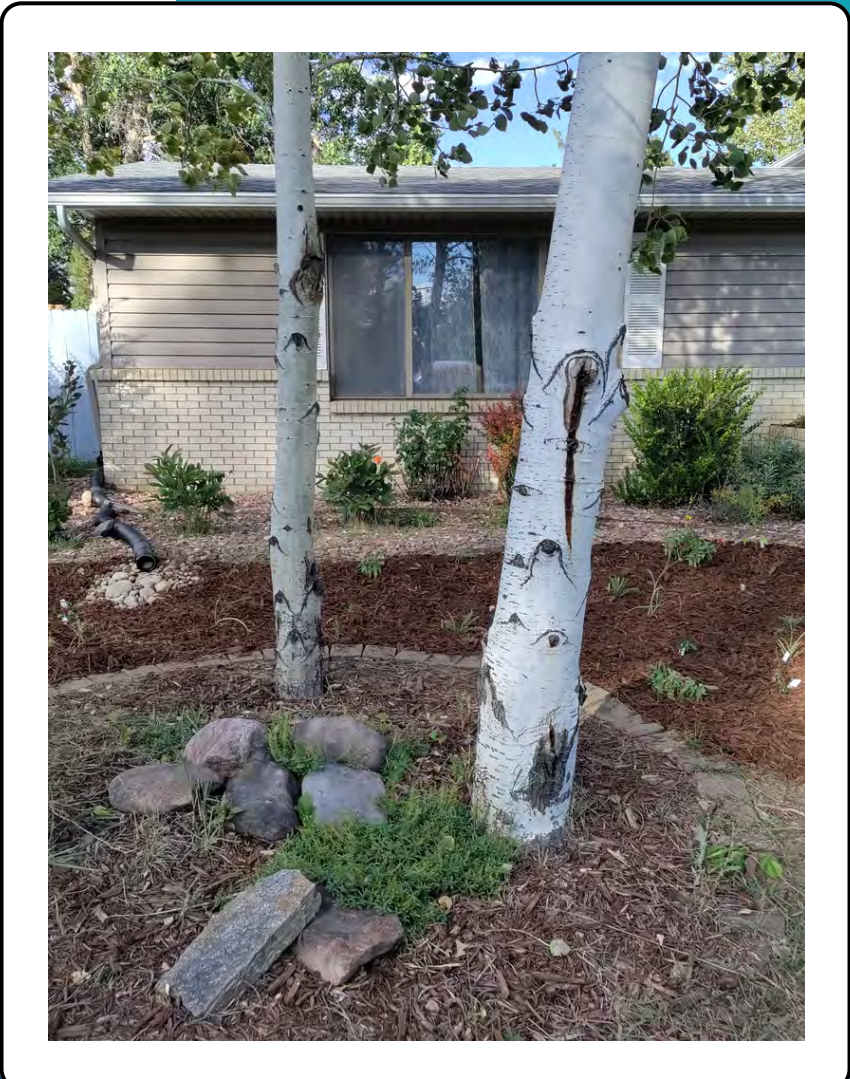


OCTOBER 2022

RESIDENTIAL RAINGARDEN PILOT PROJECT

FULL SHADE PLANTING LAYOUT: 1B



PRODUCED BY



**COLORADO
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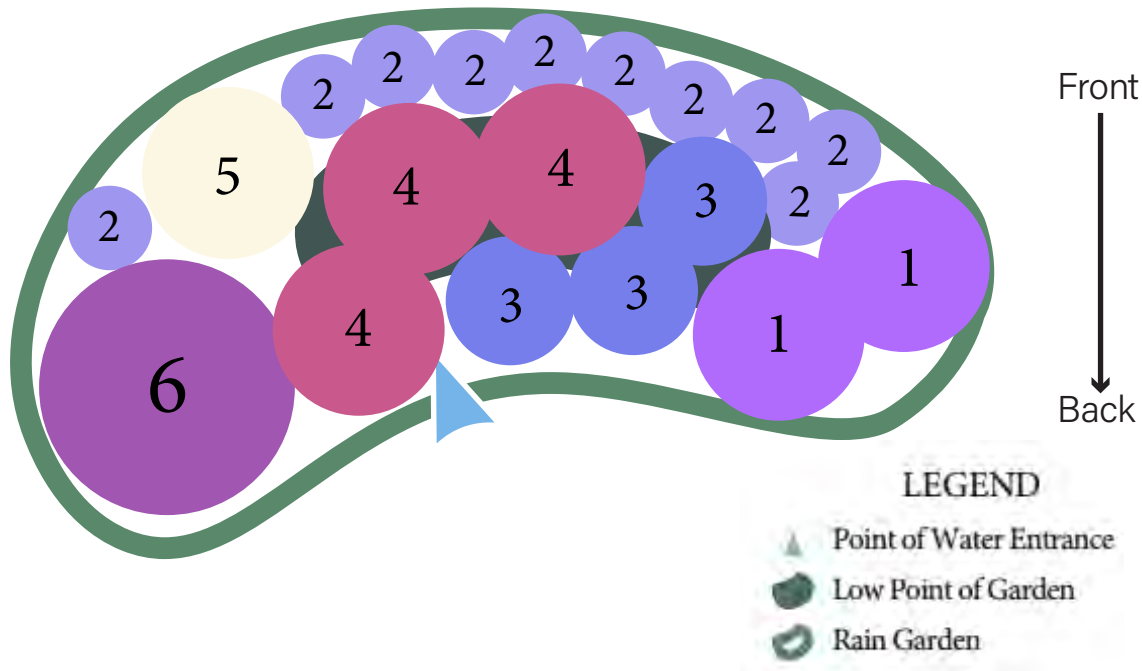


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**HORTICULTURE AND
LANDSCAPE ARCHITECTURE**
COLORADO STATE UNIVERSITY

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



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

FULL SHADE 1B SUBSTITUTION LIST

All Plants on list are Native to the Rocky Mountain/Front Range Region unless marked*

Layout Number	Original Plant	Substitution	Tier	Dimensions	Color
1	Beebalm	Creeping Phlox* (<i>Phlox stolonifera</i>)	top	8" tall, 2ft spread	purple flowers, groundcover native to North America
		Rocky Mountain Columbine (<i>Aquilegia caerulea</i>)	mid	1.5ft tall, 1ft spread	Light blue and white flowers
2	Harebells	Sierra Wild Ginger* (<i>Asarum hartwegii</i>)	mid	6" tall, 1ft spread	foliage appeal, heart-shaped leaves, native to North America
		White Yarrow (<i>Achillea millefolium</i>)	top	1-2ft tall, 1.5ft spread	white flowers, finely textured foliage
3	Rocky Mountain Columbine	Yellow Trout Lily* (<i>Erythronium americanum</i>)	mid	6" tall, 8" spread	yellow nodding lily, speckled foliage, native to North America
		Celadine Poppy* (<i>Stylophorum diphyllum</i>)	mid	1.5ft tall, 1ft spread	yellow mini poppy flowers, native to North America
4	Swamp Milkweed	Umbrella Plant* (<i>Darmera peltata</i>)	low	3.5ft tall, 4ft spread	pink/white blooms, large serrated leaves, native to North America
		Wherry's Foam Flower* (<i>Tiella wherryi</i>)	low	1ft tall, 1.5ft spread	white/pink flowers, foliage has purple veins and turns bronze in fall, native to North America
5	White Yarrow	Prairie Trillium* (<i>Trillium recurvatum</i>)	mid	1.5ft tall, 1.5ft spread	deep red flowers blooming early, dormant in summer, native to North America
		White Wood Aster* (<i>Eurybia divaricata</i>)	top	2ft tall, 3ft spread	daisy-like white flowers, bushy, native to North America
6	Winecups	Jack in the Pulpit* (<i>Arisaema triphyllum</i>)	mid	1.5ft tall, 2ft spread	pitcher-plant like flowers, native to North America
		Crevice Alumroot* (<i>Heuchera micrantha</i>)	top/mid	2ft tall, 2ft spread	purple foliage, native to North America

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 1B



1. 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.



2. 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
Special Features and Notes	Attracts hummingbirds. When grown from seed, the plants start blooming the second year.



3. 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

Shade Plant Guide Layout 1B

Special Features and Notes	Attracts butterflies and hummingbirds. Deer and rabbit resistant with a pleasing scent. Will self seed to form a colony.
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4. 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.



5. White Yarrow (*Achillea lanulosa*)

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



6. 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

Shade Plant Guide Layout 1B

Hardiness	Zones 4-8, plant 3ft apart
Special Features and Notes	Ornate foliage that is attractive when not in bloom. Attracts butterflies and hummingbirds.