

Northland Arboretum – Paul Bunyan Conservation Center: Rain garden

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A demonstration rain garden was installed in conjunction with a Rain Garden Workshop in June of 2007 at the Northland Arboretum, Brainerd. Students from a local work readiness program, Master Gardeners and citizens worked with staff and volunteers from the Northland Arboretum and University of Minnesota Extension (Regional Center and Crow Wing County), in planning, design and implementation of the rain garden.

The rain garden was constructed west of the arboretum office and classroom building. The eastern edge of the rain garden allows for stormwater drainage from the parking lot for this building. A natural hillside borders the western side of the rain garden and a berm was added to the south. A future pond is to be installed to the north, and will share the northern berm (which was left unplanted due to construction of the pond).

Botanical Name	PLANT LIST	
	Common Name	Notes
<i>Asclepias tuberosa</i>	Butterfly weed	Bottom of rain garden - 24 X 30 feet
<i>Aster laevis</i>	Smooth blue aster	
<i>Echinacea angustifolia</i>	Purple coneflower	
<i>Monarda fistulosa</i>	Wild bergamot, bee balm	
<i>Solidago speciosa</i>	Showy goldenrod	
<i>Rudbeckia hirta</i>	Black-eyed Susan	
<i>Achillea millefolium</i>	Common yarrow	
<i>Tradescantia bracteata</i>	Spiderwort	
<i>Allium cernuum</i>	Wild Onion	
<i>Penstemon grandeflorus</i>	Large-flowered beard-tongue	
<i>Panicum virginianum</i>	Switch grass	Front (East) – 4 X 33' (drains from parking lot)
<i>Andropogon gerardii</i>	Indian grass	
<i>Schizachyrium scoparium</i>	Little bluestem grass	Berm (South) – 3 X 24 feet
<i>Carex gracillima</i>	Graceful sedge	
<i>Bromus ciliatus</i>	Fringed brome	Hillside (West) – 6 X 30 feet
<i>Rosa arakansana</i>	Prairie rose	
<i>Andropogon gerardii</i>	Big bluestem grass	Snowberry
<i>Symphoricarpos albus</i>	Snowberry	

The predominant soil type at this site is sand/gravel. Plant survival during drought periods was a concern due to the poor moisture holding capacity of the soil. The rain garden was over-dug and 2 inches of top soil and 2 inches of compost were tilled into the top 12 inches of parent soil. After the rain garden was dug and the berms constructed, coco fiber erosion control blanket was fitted over the berms and on the hillside slope (to prevent erosion).

The base of the rain garden was covered with 2" of wood mulch (to aid in moisture retention). Then 760 plants were planted. Cost for plants and materials (erosion control blanket and stakes) were approximately \$1,200.00. Wood mulch was provided by the arboretum.

Several Crow Wing County Master Gardeners are monitoring, watering and weeding to insure success of the rain garden.



Planting

Hillside berm with erosion control blanket

Level bottom with wood mulch



Two months after planting