

# GRASSES FOR GREEN INFRASTRUCTURE

**Green infrastructure (GI)** uses plants, soils, and natural processes to manage water and add ecological function to new and existing development. The first two pages give an overview of common GI features, followed by a chart that suggest grasses, sedges, and rushes that should perform well in the growing environments of these features. Many stormwater guidelines recommend native plants, so we focus mainly on North American selections. Well-adapted, introduced plants can also be good choices, and they are marked by an asterisk (\*). Other plants we grow could also work, but these are our top suggestions.

## BIORETENTION & RAIN GARDENS

**Bioretention & Rain Gardens** are vegetated depressions in the ground. They provide storage, evapotranspiration, and treatment of stormwater runoff. They drain within 24-48 hours and dry out when rain is sparse.

- Plants must be able to handle both wet and dry conditions and tolerate pollutants from surrounding land use.
- Bioretention cells are often divided into zones based on wetness. Plants should fit the appropriate zone: lowest – standing water and fluctuating water levels; middle – mainly fluctuating water levels; upper – usually drier, and upland species can do well.

## BIOSWALES & VEGETATED SWALES

**Bioswales & Vegetated Swales** are gently sloping channels planted heavily with a variety of species. They slow water flow, filter out trash and pollutants, and allow for infiltration and evapotranspiration.

- Plants must have strong, extensive root systems and establish quickly.
- Plants for the bottom of bioswales need to be able to handle fluctuating conditions between wet and dry.
- Plants for the upper slopes need to be tolerant of wet conditions, but also must be able to tolerate consistent dryness between rain events.

## EROSION CONTROL

**Erosion Control** plants keep soil in place and improve water quality by keeping sediment and pollutants out of waterways.

- The branching, fibrous root systems of grasses and sedges stabilize soil, especially on banks and slopes.
- These plants keep their habit when dormant, continuing to slow water even when not growing.
- They need little maintenance and are quick to establish, which can be critical on steep inclines or embankments.

## GREEN ROOFS

**Green Roofs** help manage stormwater, reduce energy consumption, provide wildlife habitat, and increase roof lifespan. Green roof systems typically have low fertility and shallow soil conditions.

- Plants must be heat and drought tolerant, provide consistent coverage, use nutrients efficiently, and have non-aggressive root growth.
- Green roofs in regions with hot, humid summers can receive heavy rainfall and have extended periods of saturation. Plants for these regions should be selected for both high water use and drought tolerance.

## LAWN ALTERNATIVES

**Lawn Alternatives** create a low ground cover that does not need regular mowing or fertilizing. Compared to turfgrass, they reduce resource use and maintenance burden.

- Many handle dry conditions once established and do not need supplemental irrigation.
- Can tolerate mowing two-three times a season if desired, but only need cutting back once a year in late winter before new growth appears. Mow high at 3-8".
- Most appropriate for areas with no or low foot traffic.

## MEADOW & PRAIRIE PLANTINGS

**Meadow & Prairie Plantings** reduce stormwater runoff, add green spaces in urban areas, and support a rich variety of wildlife. Replace a stretch of turfgrass with a visually compelling meadow or prairie planting.

- Plantings are usually open communities of grasses and wildflowers, with few trees.
- Grasses and sedges for these plantings cover a wide variety of conditions. Most do well in low-fertility soils, thrive in full sun, and are drought tolerant. For wet meadows, check individual plant listings.

# Grasses for Green Infrastructure

	Biorentention & Rain Gardens	Bioswales & Vegetated Swales	Erosion Control	Green Roofs	Lawn Alternatives	Meadow & Prairie Plantings	Quick Facts										
							Zones	Height	Shade	Part Shade	Sun	Dry	Average	Moist	Wet		
<i>Ammophila breviligulata</i>			●				3-8	3'									
<i>Andropogon gerardii</i>			●			●	3-8	5-7'									
<i>Andropogon gerardii</i> 'Blackhawks' <sup>PP27949</sup>			●			●	3-9	4-5'									
<i>Andropogon gerardii</i> Karl's Cousin® ('Nondhr')			●			●	4-8	6-7'									
<i>Andropogon gerardii</i> 'Red October' <sup>PP26283</sup>			●			●	3-9	5-6'									
<i>Andropogon glomeratus</i>	●	●					5-9	6'									
<i>Andropogon ternarius</i> 'Black Mountain'			●			●	6-9	3'									
<i>Andropogon virginicus</i>			●			●	3-8	4'									
<i>Bouteloua curtipendula</i>			●	●		●	4-9	3'									
<i>Bouteloua dactyloides</i> (syn. <i>Buchloe dactyloides</i> )			●		●		4-8	8"									
<i>Bouteloua gracilis</i>			●	●	●	●	3-9	1'									
<i>Bouteloua gracilis</i> 'Blonde Ambition' <sup>PP22048</sup>			●	●	●	●	4-9	3'									
<i>Carex amphibola</i>	●	●	●		●		3-9	1.5'									
<i>Carex appalachica</i>					●		3-8	1'									
<i>Carex bicknellii</i>	●		●			●	3-7	3'									
<i>Carex cherokeensis</i>	●	●			●	●	6-9	2'									
<i>Carex comosa</i>	●	●				●	4-9	4'									
<i>Carex crinita</i>	●	●				●	3-8	4'									
<i>Carex eburnea</i>					●		2-8	1'									
<i>Carex flaccosperma</i>	●						5-8	1'									
<i>Carex frankii</i>		●				●	5-8	2'									
<i>Carex grayi</i>	●	●					3-9	3'									
<i>Carex laxiculmis</i> 'Hobb' Bunny Blue®	●						5-9	1'									
<i>Carex lurida</i>	●	●				●	3-8	3'									
<i>Carex muskingumensis</i>	●	●					4-8	3'									
<i>Carex pensylvanica</i>					●		4-8	1'									
<i>Carex radiata</i>	●				●		4-8	2'									
<i>Carex rosea</i>	●				●		3-8	14"									

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<i>Carex squarrosa</i>	●	●					4-8	3'								
<i>Carex stricta</i>	●	●				●	4-8	3'								
<i>Carex texensis</i>				●	●	●	5-9	1'								
<i>Carex vulpinoidea</i>	●	●				●	3-8	3'								
<i>Chasmanthium latifolium</i>		●					5-10	4'								
<i>Chasmanthium laxum</i>	●						4-9	3.5'								
<i>Deschampsia cespitosa</i>	●			●	●		4-7	1.5'								
<i>Deschampsia cespitosa</i> 'Goldtau'	●			●	●		4-9	2'								
<i>Elymus hystrix</i>	●						4-9	4'								
<i>Eragrostis eliottii</i>	●		●				8-10	2.5'								
<i>Eragrostis spectabilis</i>				●	●	●	6-10	10"								
<i>Juncus effusus</i>	●	●				●	4-10	4'								
<i>Juncus tenuis</i>	●			●	●		2-10	1'								
<i>Muhlenbergia capillaris</i>			●	●	●		6-10	4'								
<i>Muhlenbergia capillaris</i> 'White Cloud'			●		●		7-10	4-5'								
<i>Muhlenbergia lindheimeri</i>			●				7-10	5-6'								
<i>Muhlenbergia reverchonii</i>	●		●		●		5-10	2.5'								
<i>Nassella tenuissima</i>			●	●			7-10	2'								
<i>Panicum virgatum</i>	●	●	●		●		4-10	3.5'								
<i>Panicum virgatum</i> 'Cape Breeze' <small>PP24895</small>	●	●	●		●		4-9	3'								
<i>Panicum virgatum</i> 'Cloud Nine'	●	●	●		●		4-9	8'								
<i>Panicum virgatum</i> 'Dallas Blues'	●	●	●		●		4-10	6'								
<i>Panicum virgatum</i> 'Heavy Metal'	●	●	●		●		4-9	5'								
<i>Panicum virgatum</i> 'Northwind'	●	●	●		●		4-9	5.5'								
<i>Panicum virgatum</i> 'Purple Tears' <small>PP28518</small>	●	●	●		●		4-10	4'								
<i>Panicum virgatum</i> 'Rotstrahlbusch'	●	●	●		●		4-10	4'								
<i>Panicum virgatum</i> Ruby Ribbons® 'RR1' <small>PP17944</small>	●	●	●		●		4-8	4'								
<i>Panicum virgatum</i> 'Shenandoah'	●	●	●		●		4-10	4'								

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<i>Panicum virgatum</i> 'Summer Sunrise'	●	●	●			●	4-10	4.5'									
<i>Panicum virgatum</i> 'Thundercloud' <small>PP20665</small>	●	●	●			●	4-9	8'									
<i>Rhynchospora colorata</i>	●	●					7-10	1.5'		■						■	■
<i>Schizachyrium scoparium</i>			●	●		●	3-9	3'									
<i>Schizachyrium scoparium</i> 'Blaze'			●	●		●	3-9	3'									
<i>Schizachyrium scoparium</i> 'Carousel' <small>PP20948</small>			●	●		●	3-9	2.5'									
<i>Schizachyrium scoparium</i> 'Chameleon' <small>PP31339</small>			●	●		●	3-9	2'									
<i>Schizachyrium scoparium</i> 'MinnBlueA' <small>PP17310</small> Blue Heaven®			●	●		●	3-9	4'									
<i>Schizachyrium scoparium</i> 'Prairie Blues'			●	●		●	3-9	3'									
<i>Schizachyrium scoparium</i> 'Standing Ovation' <small>PP25202</small>			●	●		●	3-8	4'									
<i>Schizachyrium scoparium</i> 'The Blues'			●	●		●	3-9	3'									
<i>Schizachyrium scoparium</i> 'Twilight Zone' <small>PP27432</small>			●	●		●	3-9	4.5'									
<i>Scirpus cyperinus</i>	●	●	●				4-9	6'		■					■	■	■
<i>Sorghastrum nutans</i>	●	●	●			●	4-9	6'									
<i>Sorghastrum nutans</i> 'Indian Steel'	●	●	●			●	4-9	5'									
<i>Spartina bakeri</i>	●	●					6-9	5'								■	■
<i>Sporobolus heterolepis</i>			●	●	●	●	4-9	3'									
<i>Sporobolus heterolepis</i> 'Tara'			●	●	●	●	4-9	2'									
<i>Sporobolus wrightii</i>	●	●	●				5-9	6'								■	■