PLANTS FOR GREEN INFRASTRUCTURE

The way people think about plants and the way our communities manage water are changing. Green infrastructure (GI) uses plants, soils, and natural processes to manage water and add ecological function to new and existing development. It also provides additional benefits, such as recreation space, support for wildlife, and increased aesthetic value.

Grasses and sedges play a major role in green infrastructure and low impact development. Their fibrous root systems anchor soil, slow down water flow, and increase infiltration. They help remove pollutants, and many are well-adapted to the demands of GI features.

These first two pages give a quick overview of common GI projects that include plants. The following pages suggest grasses and sedges that perform well in these projects.



Looking for more information about GI? Scan this QR code.



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. They need little maintenance and are quick to establish, which can be critical on steep inclines or embankments.

MEADOW & PRAIRIE PLANTINGS

Meadow & Prairie Plantings reduce stormwater runoff, add green spaces in urban areas, and support wildlife. Plantings are usually open communities of grasses and wildflowers, with few trees. Grasses and sedges work great in these plantings because they cover a wide variety of conditions such as low-fertility soils, full sun, and drought tolerance.



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.



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 grasses and sedges handle dry conditions once established and do not need supplemental irrigation. Some can tolerate being mowed two-three times a season if desired.



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/drought tolerant, provide consistent coverage, use nutrients efficiently, and have non-aggressive root growth.



BIOSWALES & VEGETATED SWALES

Bioswales & Vegetated Swales are gently sloping channels planted heavily with a variety of species, as opposed to grassed swales, which contain only turfgrass. They slow water flow, filter out trash and pollutants, and allow for infiltration and evapotranspiration. Plants must have strong root systems and establish quickly.



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