



Plantings that Survive the Extreme Conditions of Stormwater Treatment Basins

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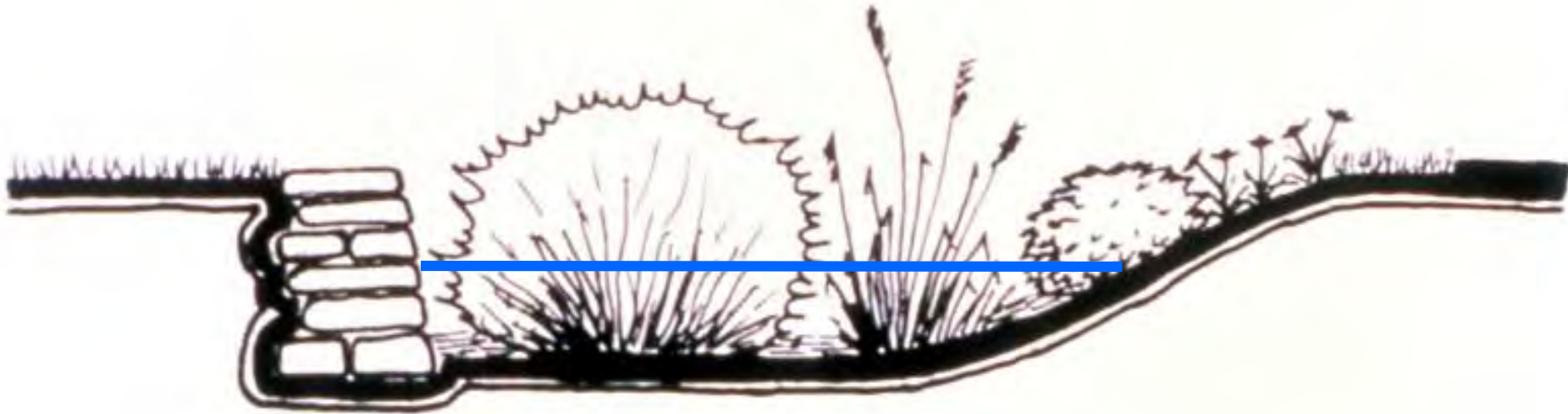


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Effective basins require plants that can tolerate both very wet and very dry conditions along with poor soils.

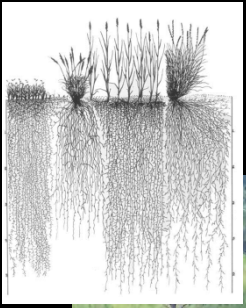




Nature's Example



Native or Non-Native?



**Lakewood Cemetery
Minneapolis, MN
July 2002**



58% Forbs
42% Graminoids
64 Species



August 2005



August 2005



July 2013 – 11 Years Later







**University of MN Duluth
Duluth, MN
August 2006**



August 2014



2006



Grass-Leaved Goldenrod *Euthamia graminifolia*, Canada Blue Joint Grass, *Calamagrostis canadensis*, Joe-Pye weed *Eupatorium maculatum*, Tussock sedge *Carex stricta*



August 2014

**Rushmore Ave.
Burnsville, MN**



2003





BARR

2006



2016





2013



**Species that Survive the
Extreme Conditions of
Stormwater Treatment Basins**



Lake Sedge, *Carex lacustris*



Lake Sedge, *Carex lacustris*



Tussuck Sedge, *Carex stricta*



Tussuck Sedge, *Carex stricta*



Tussuck Sedge, *Carex stricta*



Palm Sedge, *Carex muskingumensis*



Palm Sedge, *Carex muskingumensis*



River Bulrush, *Scirpus fluviatilis*



Prairie Cord Grass, *Spartina pectinata*



Prairie Cord Grass, *Spartina pectinata*



Switch Grass 'North Wind'



Switch Grass 'Heavy Metal'



Calamagrostis × *acutiflora* 'Karl Foerster'



Winterberry 'Red Sprite' & Jim Dandy
Ilex verticillata



Lowbush honeysuckle, *Diervilla lonicera*



Gro-Low Sumac, *Rhus aromatica* 'Gro-Low'



Pink Turtlehead 'Hot Lips',
Chelone lyonii 'Hot Lips'



Joe-Pye Weed 'Gateway',
Eutrochium maculatum 'Gateway'



Canada Anemone, *Anemone canadensis*

Conclusion

Purpose of Basins: To improve water quality.
We need a lot of them!



**Native plantings tend to loose diversity
(but can be managed to retain diversity).**



**Native plants work best
in large areas.**



Maintenance is critical to plantings success.



2016

Design for low maintenance.



**Choose plants that tolerate
low soil nutrient conditions.**

Plan for adaptive management.



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