



2011~2012
Bioretention
Soil Study
at Shaw
Nature Reserve

The following plant species are being used in the study:

Native species:

Carex muskingumensis

Iris fulva

Amsonia illustris

Panicum virgatum

Rudbeckia fulgida

Juncus effuses

Hibiscus lasiocarpus

Ilex verticillata

Non-native species:

Fescue-turfgrass cultivar

Iris siberica cultivar

Hemerocallis

Miscanthus 'Morning Light'

Hosta fortunei 'Albo-marginata'

Liriope muscari 'Big Blue'

Hibiscus x cultivar

Spiraea

Soil #	Sand	Compost	Topsoil	Wood Screens	Waste Residue
#1*	60%	30% (Black Forest)	10%		
#2	80%		10%	10%	
-					
#3	80%			15%	5%
-					
#4	60%	15% (Black Forest)	25%		

*Soil #1 is the standard St Louis Compost Rain Garden mix and is the control

Measurements:

- Height x width measured weekly; photographed weekly
- Compare each species' performance in all 4 soils over 2 year period
- Final measurement will be final weight of plant and root length/width



7/31/11





Amsonia illustris

8-29-11

Soil 1



Soil 2



Soil 3



Soil 4



9-18-11



Hemerocallis

8-29-11

Soil 1



Soil 2



Soil 3



Soil 4



9-18-11





Amsonia illustris

4-9-12

Soil 1



Soil 2



Soil 3



Soil 4



6-13-12



4~9~12

Hemerocallis

Soil 1



Soil 2



Soil 3



Soil 4



6~13~12

