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Engineering • Surveying • Environmental Services

Native Municipal Storm Water Features – Design/Construction/Maintenance

Ashley Vande Voort
Jared Schmidt

NES

ECOLOGICAL SERVICES

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Native Planting

- * Considerations
 - * Slope/erosion
 - * Aesthetics
 - * Habitat value
 - * Cost

KENTUCKY BLUEGRASS SEEDING



NATIVE SEEDING



Kentucky Bluegrass

EROSION

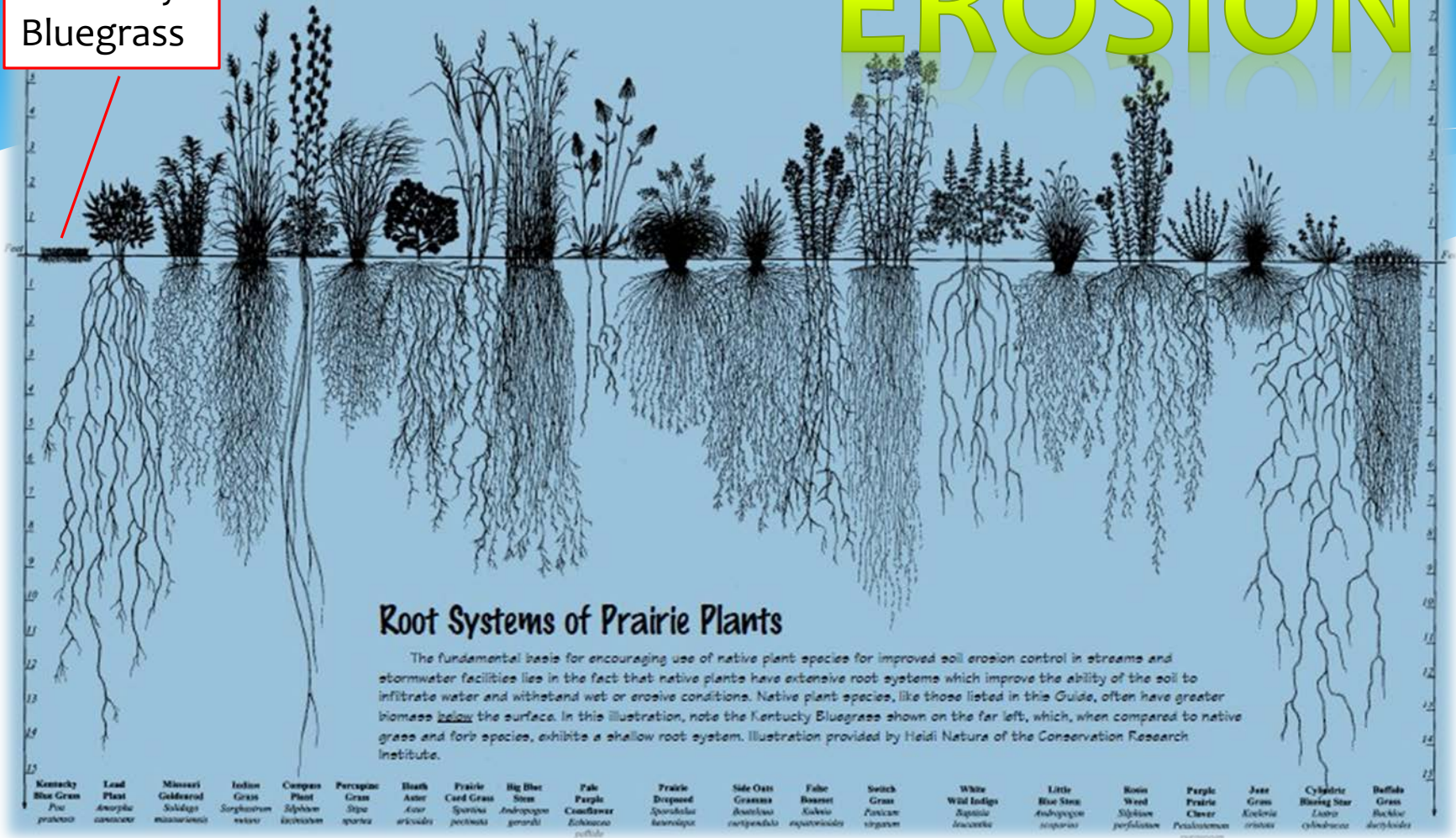


Diagram from USDA

Aesthetics



Floral Diversity and Wildlife Habitat



Geese Like Lawns



Get a Professional

- * Plant Identification
- * Species selection based on site characteristics
- * Proper maintenance activities
- * Appropriately timed maintenance
- * Knowledgeable of long-term maintenance needs

Site Assessment for Native Plant Installation

- * Existing Vegetation
- * Soils
- * Sunlight
- * Wildlife
- * Erosion
- * Aesthetics

Cost

- * In time, native plants can create a self-sustaining community
- * Maintenance is still required!!!

Site Preparation



Existing Vegetation



Cover Crop



Lack of Proper Site Prep

Use a Qualified Contractor for Installation



Year 0



Year 1



Spot Herbicide Treatment

Mowing



Year 2



Year 3



Burning





Year 0



Year 1



Year 3



Year 2

Lack of Maintenance



Lack of Maintenance= Higher Cost for Future Work



Monthly Assessments

- * On a monthly basis state what upcoming maintenance activities need to be performed



Stormwater Facility Inspection Report

Date of Inspection: 08/03/2017	Inspected By: AL
Owner: City of Green Bay	Facility Name: Barina
Recent Rainfall:	Purpose of Inspection: Routine

Stormwater Pond Facility			Embankments		
		Comments	Clogging/Debris/Litter:	No	Date/Action Taken/Comments
Algae Present:	Yes			No	
Other:			Slumping/Stability:	No	
			Bank Erosion:	No	
			Shoreline Erosion:	No	
			Burrow/Sink Holes:	No	
Pond Sediment Accumulation:			Woody Plants:	Yes	
			Other:		
Inlet Pipes / Outfall Structures			Ditches / Storm Sewer		
		Action Taken / Comments			Action Taken / Comments
Clogging/Discharge:	No		Clogging/Debris/Litter:	No	
Erosion:	No		Erosion:	No	
Illicit Discharge:	No		Structural Integrity:	Excellent	
Structural Integrity:	Poor		Other Damage:		
Other Damage:					
Native Vegetation Assessment			Invasive Species Present		
Upland:	Yes		Bull Thistle, Burdock, Canada Thistle, Cattail (hybrid), Cattail (narrow-leaved), Multiple Invasives, Phragmites, Queen Anne's Lace, Sweet Clover		
Wetland:	Yes				
Muskrat or Goose Herbivory:	Yes				
Trapping Recommended:	No				
Follow Up					
Follow Up Task		Follow Up Date	Invasive Species		
1)			Phragmites		
2) Cut & Pile					
3) Posting					

Additional Comments:

Annual Assessment



Which Invasive Species are Present?



What management needs to be performed?



Annual Report



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1250 Centennial Centre Blvd. • Hobart, WI 54155

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Annual Assessment Report 12 Stormwater Facilities

Prepared for

City of Oshkosh – Department of Public Works

215 Church Avenue, Room 301

PO Box 1130

Oshkosh, WI 54903-1130

Project #11106003

Authored By:

Ashley Vande Voort & James Havel

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www.NESWI.com

Assessment- Mapping



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Ashley Vande Voort- avandevoort@releeinc.com

Jared Schmidt- jschmidt@releeinc.com

920-662-9641

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