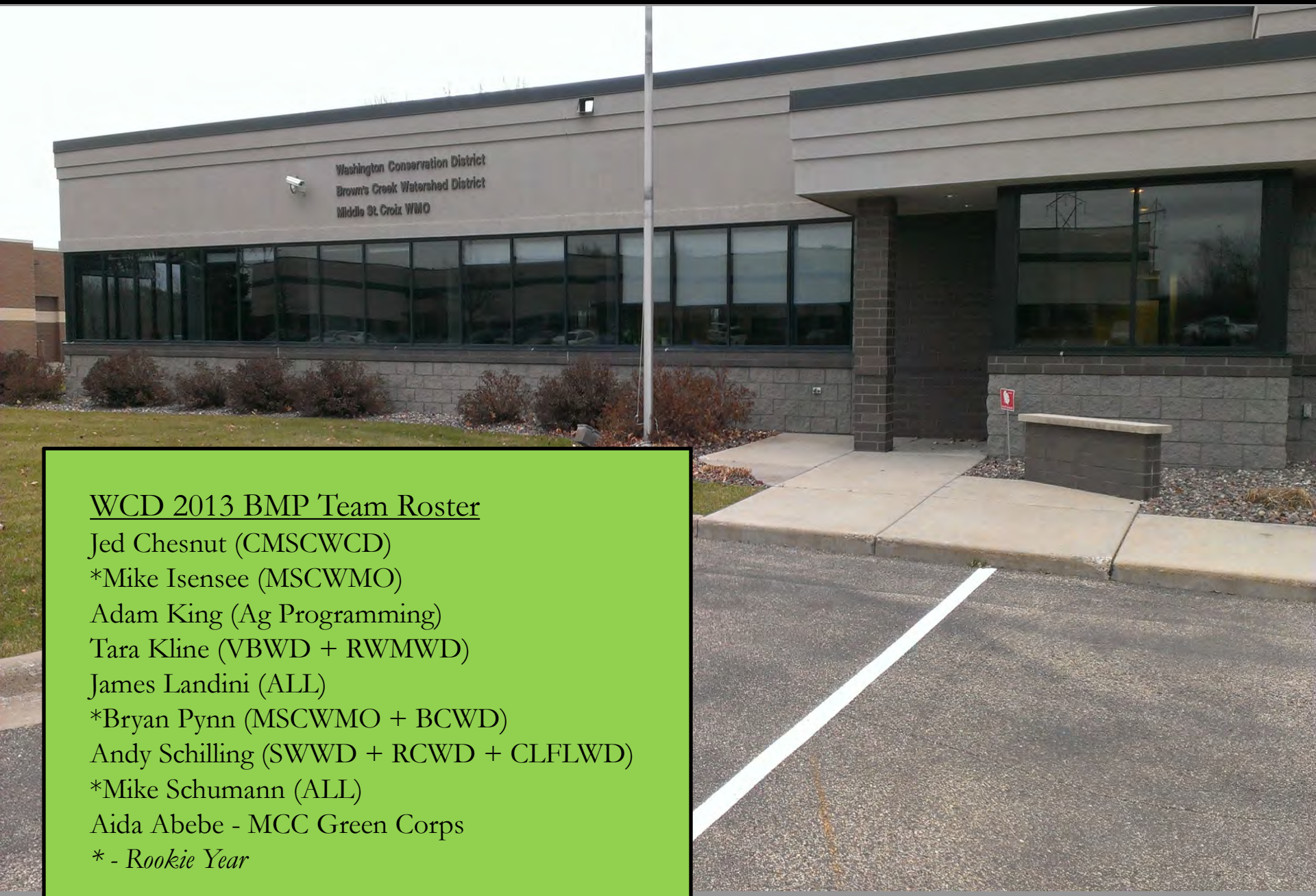
WASHINGTON CONSERVATION DISTRICT

Valley Branch Watershed District
established November 14, 1968

Tara Kline
Natural Resource Specialist
WCD

What Happen in 2013?



WCD 2013 BMP Team Roster

Jed Chesnut (CMSCWCD)
*Mike Isensee (MSCWMO)
Adam King (Ag Programming)
Tara Kline (VBWD + RWMWD)
James Landini (ALL)
*Bryan Pynn (MSCWMO + BCWD)
Andy Schilling (SWWD + RCWD + CLFLWD)
*Mike Schumann (ALL)
Aida Abebe - MCC Green Corps

* - *Rookie Year*

What Happen in 2013?

2013 **BMP** *PROGRAM REVIEW*

2013 Summary of BMP's per watershed

Watershed	# of Site Visits	# of Projects Installed/ Closed-Out	# of Projects Installed/Closed-Out from Previous Years	# of 2013 Projects Completed (TA Only)	# of 2013 Projects (In-Progress)	Load Reduction for Installed Projects TP (Total Phosphorous) lbs/yr
BCWD	24	0	3	10	11	0.525
CLFLWD	23	1	3	7	13	0.34
MSCWMO	47	17	1	11	23	18.85
RCWD	11	4	0	1	2	7.31
CMSCWD	21	3	1	0	10	15.41
RWMWD	18	0	0	1	13	0
SWWD	47	16	8	12	24	48.51
VBWD	50	4	5	3	19	0.7
TOTALS	**241**	**45**	**21**	**45**	**115**	**92**

What Happen in 2013?

BMP PROJECT TRACKING 2013

Valley Branch Watershed District Cost-Share Program

Valley Branch Watershed District
established November 14, 1968

PROJECT SUMMARY		
Total Number of Site Visits Conducted in 2013:		50
Total Number of Projects Approved in 2013 (Includes 11 site visits from 2012)	2 Cancelled	29
Total Number of Projects Completed/Closed-Out 2013:		4
Total Number of Projects from Previous Years Completed/Closed-Out in 2013:		5
Total Number of Projects Completed (Technical Assistance Only) in 2013:		3
Total Number of Projects (In-Progress) in 2013: 2013 Projects that will finish in 2014		19
	Total Number of Projects:	31
	Total Percentage of Project Follow-Through by Landowner, Post Initial Contact:	62%
Total Phosphorous Reduction from Projects Completed/Closed-Out in 2013 (lbs/yr):		0.7

1 RCD 2013 Project Completed/Closed-Out 2013

What Happen in 2013?

Total Number of Projects Per City & Represented Practice Types in 2013	
Afton	**5**
Native Planting	
Buckthorn	
Lake Elmo	**11**
Raingarden (off-line)	
Raingarden (in-line)	
Native Planting	
Buckthorn	
Oakdale	**7**
Raingarden (in-line)	
Raingarden (off-line)	
Native Planting	
Stillwater	**1**
Buckthorn	
Stillwater Twp	**1**
Native Planting	
West Lakeland Twp	**2**
Raingarden (off-line)	
Native Planting	

Total Number of Projects Per Grant	
Buckthorn:	**3**
Plant:	**12**
Individual:	**12**

What Happen in 2013?

Projects Approved For Cost Share in 2013, 2 Cancelled.

Total Number of Projects Per Subwatershed in 2013		
Acron Lake	2	
Beutel Pond	2	
DeMontreville	2	
Downs Lake	1	
Goetchel Pond	1	
Horseshoe Lake	1	
Kelles Coulee	3	
Klawitter	1	
Lake Jane	2	
Lake Olson	2	
McDonald Lake	1	
Mergens Pond	2	
North Farney Creek	1	
North Fork Valley Branch Creek	2	
Olson Lake Estates Pond	1	
Raleigh Creek	1	
Rose Lake	1	
South Fork	1	

2013 Project Review, Grabowski Residence

Klawitter Pond

Before

During

After

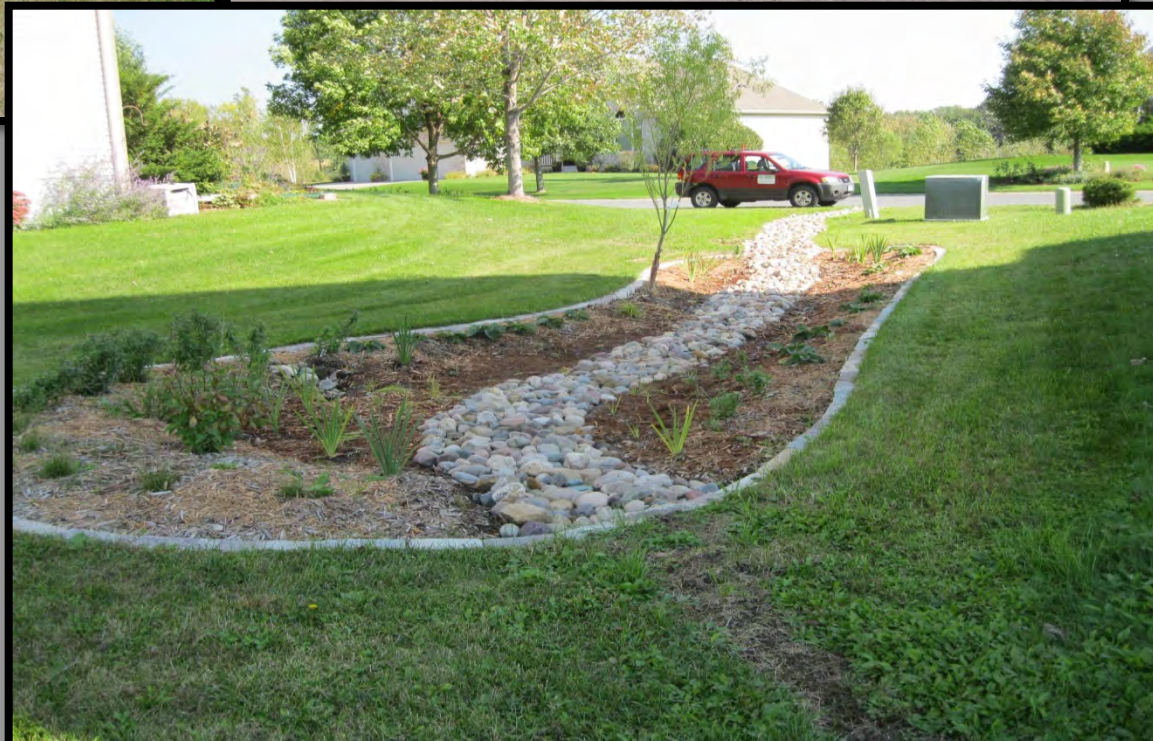
Native Plant Grant, Complete

2013 Project Review, Lochner/Santori Residence

Beutel Pond

Before

After



Individual Grant, Raingarden Complete

2013 Project Review, McGuire-Ales Residence

Lake DeMontreville

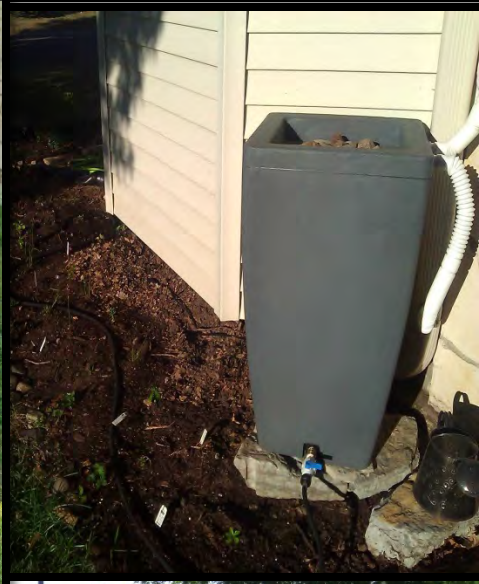
Before

After

Native Plant Grant, Complete

2013 Project Review, MekkaResidence

Acorn Lake



2013 Project Review, Reeh Residence

McDonald Lake

Before

After

Buckthorn Removal Complete

2013 Project Review, Wilcox Residence

Kelles Coulee

Before

After

Buckthorn Removal,
In Process

2013 Project Review, Helms Residence , 2012

Native Plant Grant,
White Pines

Complete 2013

2013 Project Review, Lake Elmo Roadways 2012 Correction

After

Before

Correction complete 2013

2013 Project Review, Hedberg, 2012

Before

After

Hedberg Swale, Complete 2013

2013 Project Review, Washington County Fairgrounds

Old Design from Master Gardeners, looking to update design and plant list

As of 6/2008

Plant list for Fair Rain Gardens planted in 2006

'Black' Chokeberry has been planted near the building behind all the gardens.

(natives, planted with one gallon pots)

A – Swamp Milkweed (*Asclepias incarnata*)
B - Joe Pye Weed (*Eupatorium maculatum*)
C - Boneset (*Eupatorium perfoliatum*)
D - Prairie Blazingstar (*Liatris pychnostachya*)
E - Great Blue Lobelia (*Lobelia siphilitica*)
F - Ironweed (*Vernonia fasciculata*)
G - Fragrant Hyssop (*Agastache foeniculum*)
H - Canada Anemone (*Anemone canadensis*)
I - Smooth Aster (*Aster laevis*)
J - Sky-blue Aster (*Aster oolentangiensis*)
K - Switchgrass (*Panicum virgatum*)
L - Black Eyed Susans (*Rudbeckia hirta*)
M - Prairie Onion (*Allium stellatum*)
N - Prairie Sage (*Artmesia ludoviciana*)
O - Prairie Coreopsis (*Coreopsis palmata*)
P - Prairie Smoke (*Geum trifoiorum*)
Q - June Grass (*Koehleria macrantha*)
R – Little Bluestem (*Schizachyrium scoparium*)
*R - Sweetgrass (*Hierchloe odorata*)
*trying to remove as it spreads too fast

Raingarden #1 , furthest south

(natives planted with plugs)

A – Swamp Milkweed (*Asclepias incarnata*)
B - Joe Pye Weed (*Eupatorium maculatum*)
C - Boneset (*Eupatorium perfoliatum*)
D - Prairie Blazingstar (*Liatris pychnostachya*)
E - Great Blue Lobelia (*Lobelia siphilitica*)
F - Ironweed (*Vernonia fasciculata*)
G - Fragrant Hyssop (*Agastache foeniculum*
H – Pussytoes (*Antennaria plantaginifolia*)
I - Smooth Aster (*Aster laevis*)
J - Sky-blue Aster (*Aster oolentangiensis*)
K - Bottlebrush Grass (*Elymus hystrix*)
L - Black Eyed Susans (*Rudbeckia hirta*)
M - Prairie Onion (*Allium stellatum*)
N – Spiderwort (*tradescantia occidentalis*)
O - Prairie Coreopsis (*Coreopsis palmata*)
P - Prairie Smoke (*Geum trifolorum*)
Q - June Grass (*Koehleria macrantha*)
*R - Sweetgrass (*Hierchloe odorata*)-
*trying to remove as it spreads too fast.

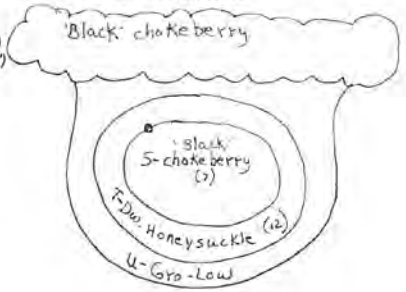
Raingarden #2

Plant list for Fair Rain Gardens planted in 2006

(natives planted with two gallon pots)

S - Chokeberry 'Black'
T - Dwarf Bush Honeysuckle (*Diervilla lonicera*)
U - Gro-Low Sumac (*Rhus aromatica 'Gro-Low'*)

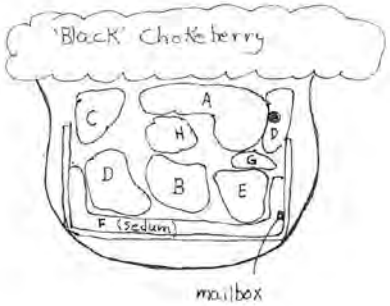
Shrub Raingarden #3



(garden perennials planted with one gallon pots)

A -Joe Pye 'Gateway'
B - Liatris 'Kobold'
C - Little Bluestem
D - Daylily 'Stella de Oro'
E - Daylily 'Happy Returns'
F - Sedum 'Autumn Joy'
G - Russian Sage
H - Curly corkscrew willow

Raingarden #4, furthest north



2013 Project Review, Washington County Fairgrounds , New 2013 Design

RAINGARDEN DEMONSTRATION PROJECT

WASHINGTON COUNTY FAIRGROUNDS

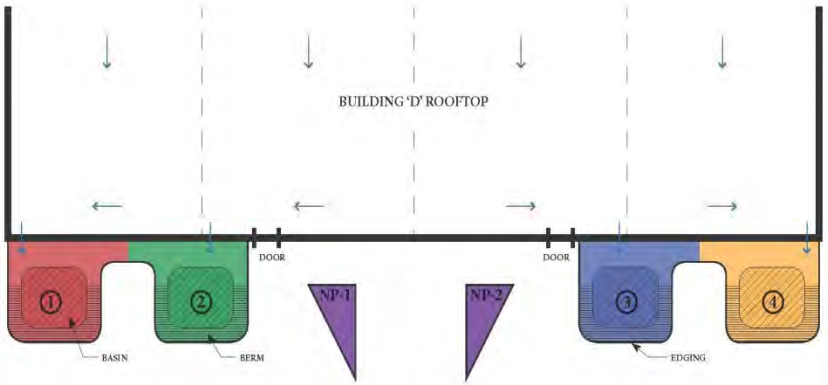
12300 N 40TH STREET - LAKE ELMO - MN

PREPARED BY:
THE WASHINGTON CONSERVATION DISTRICT

N

LEGEND — Drawings Are Not To Scale

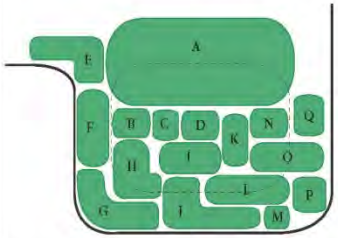
Direction of Water Flow | Raingarden Basin | Berms or Retaining Walls



① RAINGARDEN WITH NATIVE PERENNIAL PLANTING

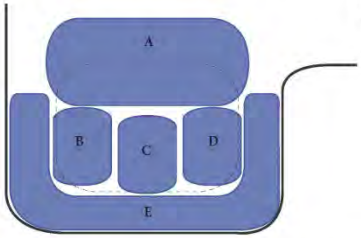
A - Black Chokeberry (*Aronia melanocarpa*)
B - Western Sunflower (*Helianthus occidentalis*)
C - Joe Pye Weed (*Eupatorium maculatum*)
D - Sneezeweed (*Helenium autumnale*)
E - Fox Sedge (*Carex vulpinoidea*)
Eastern Star Sedge (*Carex radiata*)
Sprengel Sedge (Carex sprengelii)
Lead Plant (*Amorpha canescens*)
F - Prairie Smoke (*Geum triflorum*)
Purple Coneflower (*Echinacea purpurea*)
Silky Aster (*Aster sericeus*)
G - Alum Root (*Heuchera micrantha*)
H - Hairy False Golden Aster (*Heterotheca villosa*)
I - Wild Petunia (*Violet ruellia*)
J - Mountain Mint (*Pycnanthemum virginianum*)
K - Purple Prairie Clover (*Dalea purpurea*)
Sedge Variety (*Carex spp.*)
L - Prairie Dropseed (*Sporobolus heterolepis*)
M - Swamp Milkweed (*Asclepias incarnata*)
N - Spiderwort (*Tradescantia occidentalis*)
O - Wild Petunia (*Violet ruellia*)
P - Alum Root (*Heuchera micrantha*)
Q - Black-eyed Susan (*Rudbeckia hirta*)
Anise Hyssop (*Agastache foeniculum*)
Wild Geranium (*Geranium maculatum*)
Spiderwort (*Tradescantia occidentalis*)
R - Rattlesnake Master (*Eryngium yuccifolium*)
S - Little Bluestem (*Schizachyrium scoparium*)
Prairie Dropseed (*Sporobolus heterolepis*)
T - Cup Plant (*Silphium perfoliatum*)

② RAINGARDEN WITH NATIVE PERENNIAL PLANTING



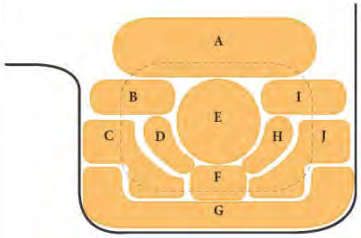
A - Black Chokeberry (*Aronia melanocarpa*)
B - Anise Hyssop (*Agastache foeniculum*)
C - Prairie Blazingstar (*Liatris pycnostachya*)
D - Anise Hyssop (*Agastache foeniculum*)
E - Boneset (*Eupatorium perfoliatum*)
F - Butterfly Milkweed (*Asclepias tuberosa*)
G - Prairie Smoke (*Geum triflorum*)
H - Prairie Coreopsis (*Coreopsis palmata*)
I - Ironweed (*Veronia fasciculata*)
J - Wild Columbine (*Aquilegia canadensis*)
Alum Root (*Heuchera micrantha*)
Pale Purple Coneflower (*Echinacea pallida*)
K - Prairie Blazingstar (*Liatris pycnostachya*)
L - Prairie Coreopsis (*Coreopsis palmata*)
M - Pussytoes (*Antennaria plantaginifolia*)
N - Ironweed (*Veronia fasciculata*)
O - Spiderwort (*Tradescantia occidentalis*)
P - Prairie Smoke (*Geum triflorum*)
Q - Anise Hyssop (*Agastache foeniculum*)

③ RAINGARDEN WITH NATIVE SHRUB PLANTING



A - Black Chokeberry (*Aronia melanocarpa*)
B - 'Blue Muffin' Viburnum (*Viburnum dentatum 'Blue Muffin'*)
C - 'Summer Wine' NineBark (*Physocarpus opulifolius 'Summer Wine'*)
D - 'Blue Muffin' Viburnum (*Viburnum dentatum 'Blue Muffin'*)
E - Low-Grow Sumac (*Rhus aromatica*)

④ RAINGARDEN WITH CULTIVAR PLANTING



A - Black Chokeberry (*Aronia melanocarpa*)
B - 'Blue Heaven' Little Bluestem (*Schizachyrium scoparium 'Blue Heaven'*)
C - 'Stella de Oro' Daylily (*Hemerocallis 'Stella de Oro'*)
D - 'Goldstrum' Black-eyed Susan (*Rudbeckia fulgid 'Goldstrum'*)
E - Corkscrew Willow (*Salix matsudana 'Tortuosa'*)
F - 'Kobold' Blazingstar (*Liatris spicata 'Kobold'*)
G - Stonecrop Sedum (*Sedum 'Autumn Joy'*)
H - 'Goldstrum' Black-eyed Susan (*Rudbeckia fulgida 'Goldstrum'*)
I - 'Gateway' Joe Pye Weed (*Eupatorium maculatum 'Gateway'*)
J - 'Happy Returns' Daylily (*Hemerocallis 'Happy Returns'*)

NP-1 NATIVE SWITCHGRASS PLANTING

NP-2 NATIVE PRAIRIE MIX PLANTING

Washington Conservation District

Valley Branch Watershed District
established November 14, 1968

East-Metro Water Resource Education Program

University of Minnesota Extension Master Gardeners

Washington County Fair

2013 Recap

1. The addition of the prioritized locations for cost share encouraged residents to follow through and install their project. The EMWREP program, neighbor communication, Blue Thumb, and articles within the paper or comments from the watershed have continued to assi
to find cost share programs in
Washington & Ramsey County.

2. Rusty moved in March, Snow lasted until May 11.

3. Maintained large volume of VBWD projects

4. A lot of time spent on correction of Lake Elmo 2012 raingardens. For future projects should City also cover cost of WCD employees time under VBWD?

5. Priority for majority of landowners was Native Plant Grant.

6. *Awarded 2014 CWF Grant* for: Lake St. Croix Rural Subwatershed Project Implementation aka Top 50 P Phase 2

Not Awarded : Homestead Development & DeMontreville Lake Bioretention

7. Bad drainage issues, people bought bad lots.

8. More guidelines on when cost share recipient moves? They must inform us so we can discuss the project benefits to new landowner.

2013 Recap

2010 Individual Grant Project

2014 Recommendations

1. Add expected end date to grant applications (1 year to complete)

2. Agricultural Grants : No till or other

3. Grant $ many need to get re-structured in 2015 to help cover cost of future maintenance. BMP Maintenance Focus Group in process. First came the database.

4. Using the Homeowner Packet more for residential designs and spending time on larger projects.

5. Turf to Prairie CWF Grant

2014 Recommendations

CWF Turf to Native Prairie Grant

Example: 1 Acre Project (0.5 lb TP)

Install + 2 yrs Maintenance

= 75% Grant Covers per Acre/ $6,200 max ($4,650)

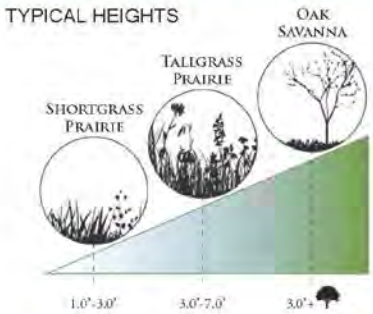
= 25% Landowner/partnering agency ($1,550)

Grant allows for 20 – 30 acres depending on complexity.

Currently 1 – 2 projects in VBWD (Wilcox in running)

Will know more in March on landowners selected.

WHAT KIND OF PRAIRIE ARE YOU...?



Cost Estimate for 1 acre Turf to Prairie Conversion over a 10 Year Period

TIMELINE	CONTRACTOR PRICING	AMOUNT COVERED BY GRANT @ 75%	DESCRIPTION
Installation	$3000 - $5000	$2250 - $3750	Grass/Forb Prairie or Oak Savanna (predominantly grass); herbicide kill of existing turf; no-till drill seeding; if oak savanna – saplings or bare root
Year 1	$600	$450	Mow (6-8 inches) – every 30 days after planting until September 30 to help control annual weeds; Spot spray thistles.
Year 2	$600	$450	Mow (6-8 inches) one time between June 1 - August 15 before weeds set seed; Spot spray thistles etc.
Year 3	$1,350	$0	Contractor recommends a burning of the prairie. **Alternative:** Sites usually do not require much maintenance beginning the third year; Mow only if necessary; Spot spray thistles, etc.
Year 4	$600	$0	Spot Spraying (if needed)
Year 5	$400	$0	Spot Spraying (if needed)
Year 6	$1,150	$0	Spot Spraying (if needed), burning or haying (if needed)
Year 7	$400	$0	Spot Spraying (if needed)
Year 8	$400	$0	Spot Spraying (if needed)
Year 9	$1,150	$0	Spot Spraying (if needed) plus burning or haying (if needed)
Year 10	$400	$0	Spot Spraying (if needed)
Total	$10050 - $12050	$3150 - $4650	

Timeline	Project Installation and Maintenance Cost	Cost covered by Grant	Cost to Landowner
0 – 2 years	$4200 – 6200	$3150 – 4200	$1050 - $2000*
3 – 10 years	$0 - $5850**	$0	$0 - $5850**

*Any additional watershed district/watershed management organization cost share funding can be used as a match to the project installation cost

**Landowners can provide their own maintenance in years 3-10 (Washington Conservation District can provide further technical assistance during this time).

THANK YOU!

Tara Kline
Natural Resource Specialist
Washington Conservation District