



# Grant All-Detail Report Projects and Practices 2015

**Grant Title** - Green Lakeshore Rehabilitation and Stormwater Treatment

**Grant ID** - C15-1304

**Organization** - Isanti SWCD

<b>Grant Awarded Amount</b>	<b>\$99,736.00</b>	<b>Grant Execution Date</b>	<b>3/31/2015</b>
<b>Required Match Amount</b>	\$24,934.00	<b>Grant End Date</b>	12/31/2018
<b>Required Match %</b>	25%	<b>Grant Day To Day Contact</b>	Tiffany Determan

## Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$99,736.00	\$70,679.94	\$29,056.06
Total Match Amount	\$24,934.00	\$12,224.56	\$12,709.44
Total Other Funds	\$0.00	\$0.00	\$0.00
<b>Total</b>	<b>\$124,670.00</b>	<b>\$82,904.50</b>	<b>\$41,765.50</b>

\*Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.

## Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Match
Construction	Streambank or Shoreline Protection	Current State Grant	Green Lakeshore Rehabilitation and Stormwater Treatment	\$90,046.00	\$60,989.94	10/18/2016	N

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Match
Construction	Streambank or Shoreline Protection	Local Fund		\$3,024.00	\$5,605.11	10/24/2016	Y
Grant admin	Administration /Coordination	Local Fund		\$2,496.00	\$393.85	3/25/2016	Y
Project coordination	Technical/Engineering Assistance	Current State Grant	Green Lakeshore Rehabilitation and Stormwater Treatment	\$9,690.00	\$9,690.00	1/29/2016	N
Project coordination	Technical/Engineering Assistance	Local Fund		\$19,414.00	\$6,225.60	3/25/2016	Y

### Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
580 - Streambank and Shoreline Protection	1	1	0.05 AC	0.05 AC
342 - Critical Area Planting	1	1	0.03 AC	0.03 AC
342 - Critical Area Planting	1	1	0.02 AC	0.02 AC
342 - Critical Area Planting	1	1	0.1 AC	0.1 AC
580 - Streambank and Shoreline Protection	1	1	0.06 AC	0.06 AC
580 - Streambank and Shoreline Protection	1	1	0.11 AC	0.11 AC
342 - Critical Area Planting	2	1	0.07 AC	0.07 AC
580 - Streambank and Shoreline Protection	1	1	0.04 AC	0.04 AC
580 - Streambank and Shoreline Protection	1	1	0.03 AC	0.03 AC

## Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
<b>Construction</b>	VOLUME REDUCED (ACRE- FEET/YEAR)	0.08 ACRE-FEET/YR	Green Lake	WINSLAMM	
<b>Construction</b>	PHOSPHORUS (EST. REDUCTION)	1.28 LBS/YR	Green Lake	WINSLAMM	Est is a combo of WI NRCS bank erosion, BWSR bank erosion, Winslamm
<b>Construction</b>	SEDIMENT (TSS)	8.34 TONS/YR	Green Lake	BWSR CALC (STREAM & DITCH STABILIZATION)	Estimate is a combo of WI NRCS bank erosion, BWSR bank erosion, WinSLAMM

## Final Indicators Summary

Indicator Name	Total Value	Unit
<b>SEDIMENT (TSS)</b>	6.82	TONS/YR
<b>Total Suspended Solids (TSS)</b>	0.71	Mg/L
<b>PHOSPHORUS (EST. REDUCTION)</b>	13.08	LBS/YR

## Grant Activity

Grant Activity - Construction	
<b>Description</b>	<p>This project will install practices to improve water quality in Green Lake, Isanti Co. We will install approximately 780 linear feet of stabilized lakeshore with an emphasis on bioengineering techniques (rock used where necessary will preferably be inter-planted), native plants and locating buffers/swales at points of concentrated overland flow into the lake. By targeting properties that are eroding and/or with concentrated overland flow to the lake we will reduce suspended solids discharge by 16,697 lbs/yr and phosphorus by 1.3 lbs/yr. We will also establish emergent native plants which indirectly improve water quality.</p> <p>Candidate sites will be prioritized based upon: length and severity of eroding shoreline to be stabilized, size of vegetated swales/buffers to be installed, installing buffers/swales in areas of concentrated inflow, and landowner cooperation (including strength of landowner commitment to long term maintenance).</p> <p>Ice jacking is a concern. It is a cause of some of the most severe erosion, but also a threat to project longevity. Sites with recurring major ice damage (based and landowner knowledge) will be avoided or may require "harder" engineering techniques.</p> <p>Expenses for this activity will include construction materials, labor, equipment, permit(s) and similar.</p>
<b>Category</b>	STREAMBANK OR SHORELINE PROTECTION
<b>Start Date</b>	1-Jan-16
	<b>End Date</b>
<b>Has Rates and Hours?</b>	No
<b>Actual Results</b>	<p>9 stormwater reduction practices are being implemented with this grant. All sites were prioritized using methods used in the Green Lake Stormwater Retrofit Assessment and explained in the grant application. The majority of project construction occurred fall 2016, aquatic plants and woody plants will be planted spring 2017.</p> <p>Projects as follows:</p> <p>Carlson: Lakeshore stabilization, 1,200 sq ft</p> <p>Chilson: 837 sq ft</p> <p>Dancik: 2,999 sq ft buffer plus rain garden 485 sq ft</p> <p>Glenn: 3,000 sq ft</p> <p>Hage: 5,000 sq feet</p> <p>Hammer: 2,334 sq feet</p> <p>Lind: 1,937 sq ft</p>

Orton: 2,724 sq ft  
 Roos: 1,385 sq ft

Land owners are paying a combination of cash match and in-kind time.

Activity Action - Hammer Lakeshore stabilization			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.05 AC	Lifespan	10 Years
Actual Size/Units	0.05 AC	Installed Date	18-Oct-16
Mapped Activities	1 Line(s)		

Final Indicator for Hammer Lakeshore stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	3.6
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Hammer Lakeshore stabilization			
Indicator Name	SEDIMENT (TSS)	Value	1.00
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green lake		

Activity Action - Carlson Lakeshore Stabilization			
Practice	342 - Critical Area Planting	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.03 AC	Lifespan	10 Years
Actual Size/Units	0.03 AC	Installed Date	18-Oct-16
Mapped Activities	1 Polygon(s)		

Final Indicator for Carlson Lakeshore Stabilization			
Indicator Name	SEDIMENT (TSS)	Value	3.1
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	BWSR CALC (GULLY STABILIZATION)
Waterbody	Green Lake		

Final Indicator for Carlson Lakeshore Stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	2.75
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	BWSR CALC (GULLY STABILIZATION)
Waterbody	Green lake		

Activity Action - Chilson Lakeshore stabilization			
Practice	342 - Critical Area Planting	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.02 AC	Lifespan	10 Years
Actual Size/Units	0.02 AC	Installed Date	18-Oct-16
Mapped Activities	1 Polygon(s)		

Final Indicator for Chilson Lakeshore stabilization			
Indicator Name	SEDIMENT (TSS)	Value	.05
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Final Indicator for Chilson Lakeshore stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	.18
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Activity Action - Dancik Lakeshore Stabilization			
Practice	342 - Critical Area Planting	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.07 AC	Lifespan	10 Years
Actual Size/Units	0.07 AC	Installed Date	18-Oct-16
Mapped Activities	1 Polygon(s)		

Final Indicator for Dancik Lakeshore Stabilization			
Indicator Name	Total Suspended Solids (TSS)	Value	.71
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) Mg/L	Calculation Tool	WINSLAMM
Waterbody	Green lake		

Final Indicator for Dancik Lakeshore Stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	.25
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Activity Action - Dancik Rain Garden			
Practice	342 - Critical Area Planting	Count of Activities	1
Description	rain garden		
Proposed Size / Units	0.10 AC	Lifespan	10 Years
Actual Size/Units	0.10 AC	Installed Date	18-Oct-16
Mapped Activities	1 Polygon(s)		

Final Indicator for Dancik Rain Garden			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	.003
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Dancik Rain Garden			
Indicator Name	SEDIMENT (TSS)	Value	1.38
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Activity Action - Glenn Lakeshore stabilization			
Practice	342 - Critical Area Planting	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.07 AC	Lifespan	10 Years
Actual Size/Units	0.07 AC	Installed Date	18-Oct-16
Mapped Activities	1 Polygon(s)		

Final Indicator for Glenn Lakeshore stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	1.39
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Glenn Lakeshore stabilization			
Indicator Name	SEDIMENT (TSS)	Value	.56
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Activity Action - Hage Lakeshore Stabilization			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.11 AC	Lifespan	10 Years
Actual Size/Units	0.11 AC	Installed Date	18-Oct-16
Mapped Activities	1 Line(s)		

Final Indicator for Hage Lakeshore Stabilization			
Indicator Name	SEDIMENT (TSS)	Value	.36
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Hage Lakeshore Stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	3.76
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Activity Action - Lind Lakeshore Stabilization			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.04 AC	Lifespan	10 Years
Actual Size/Units	0.04 AC	Installed Date	18-Oct-16
Mapped Activities	1 Line(s)		

Final Indicator for Lind Lakeshore Stabilization			
Indicator Name	SEDIMENT (TSS)	Value	.17
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Lind Lakeshore Stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	.42
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		



Activity Action - Orton Lakeshore Stabilization			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.06 AC	Lifespan	10 Years
Actual Size/Units	0.06 AC	Installed Date	18-Oct-16
Mapped Activities	1 Line(s)		

Final Indicator for Orton Lakeshore Stabilization			
Indicator Name	SEDIMENT (TSS)	Value	.01
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Orton Lakeshore Stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	.35
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Activity Action - Roos lakeshore stabilization			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	Stabilization/stormwater project		
Proposed Size / Units	0.03 AC	Lifespan	10 Years
Actual Size/Units	0.03 AC	Installed Date	18-Oct-16
Mapped Activities	1 Line(s)		

Final Indicator for Roos lakeshore stabilization			
Indicator Name	SEDIMENT (TSS)	Value	.19
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		
Final Indicator for Roos lakeshore stabilization			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	.372
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	WINSLAMM
Waterbody	Green Lake		

Grant Activity - Grant admin		
Description	Grant admin, including financial record-keeping, reporting, etc.	
Category	ADMINISTRATION/COORDINATION	
Start Date		End Date
Has Rates and Hours?	Yes	
Actual Results		

Grant Activity - Project coordination		
Description	Project coordination will include partner meetings, permitting, site selection, project promo to landowners at high priority project sites, construction designs, bid processes, construction oversight, community engagement and similar.	
Category	TECHNICAL/ENGINEERING ASSISTANCE	
Start Date	31-Mar-15	End Date
Has Rates and Hours?	Yes	
Actual Results	<p>SWCD staff have:</p> <ul style="list-style-type: none"> <li>- Updated our list of candidate project sites through field surveys. Lake flooding had altered the landscape sufficiently to demand a fresh look at potential project sites.</li> <li>- Scored project sites to prioritize their cost effectiveness at achieving project goals.</li> <li>- Engaged landowners through group and individual meetings. 11 have signed "letters of intent," indicating an interest level strong enough to justify design work.</li> <li>- Began project permitting with the MN DNR.</li> <li>- Surveyed each project site to collect the information needed for design preparation.</li> </ul> <p>Design work will continue through early 2016. Thereafter, construction bidding and construction will take place.</p>	

### Grant Attachments

Document Name	Document Type	Description
<b>2015 Competitive Grant</b>	Grant Agreement	2015 Competitive Grant - Isanti SWCD
<b>2015 Competitive Grant executed</b>	Grant Agreement	2015 Competitive Grant - Isanti SWCD
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 01/19/2016

Document Name	Document Type	Description
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 01/05/2017
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 10/28/2016
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 10/11/2016
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 03/24/2016
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 02/23/2016
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 02/23/2016
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 01/13/2017
<b>Application</b>	Workflow Generated	Workflow Generated - Application - 09/25/2014
<b>Financial report</b>	Grant	Green Lakeshore Rehabilitation and Stormwater Treatment
<b>Green Lake Improvement District support letter</b>	Grant	Green Lakeshore Rehabilitation and Stormwater Treatment
<b>Green Lakeshore and Stormwater Project Image</b>	Grant	Green Lakeshore Rehabilitation and Stormwater Treatment
<b>Second payment authorizatio</b>	Grant	Green Lakeshore Rehabilitation and Stormwater Treatment
<b>Work Plan</b>	Workflow Generated	Workflow Generated - Work Plan - 03/30/2015
<b>Work Plan</b>	Workflow Generated	Workflow Generated - Work Plan - 01/28/2015
<b>grantmap_12543_2014-09-05_03-45-28-PM.jpg</b>	Grant	Green Lakeshore Rehabilitation and Stormwater Treatment