



Grant All-Detail Report Projects and Practices 2016

Grant Title - Ag BMP Soluble P Reduction

Grant ID - C16-7245

Organization - Washington Conservation District

Original Awarded Amount	\$160,000.00	Grant Execution Date	3/21/2016
Required Match Amount	\$40,000.00	Original Grant End Date	12/31/2018
Required Match %	25%	Grant Day To Day Contact	Tara Kelly
Current Awarded Amount	\$160,000.00	Current End Date	12/31/2019

Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$160,000.00	\$159,054.24	\$945.76
Total Match Amount	\$41,666.50	\$103,400.23	\$-61,733.73
Total Other Funds	\$0.00	\$0.00	\$0.00
Total	\$201,666.50	\$262,454.47	\$-60,787.97

*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	Matching Fund
Administration	Administration /Coordination	Current State Grant	Ag BMP Soluble P Reduction	\$5,000.00	\$4,796.09	12/9/2019	N
Agricultural BMPs	Agricultural Practices	Current State Grant	Ag BMP Soluble P Reduction	\$110,000.00	\$93,164.42	12/3/2019	N
Agricultural BMPs	Agricultural Practices	Landowner Fund	Landowner	\$3,000.00			Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Agricultural BMPs	Agricultural Practices	Local Fund	Watershed District	\$33,666.50	\$103,036.23	12/3/2019	Y
Project Development	Project Development	Current State Grant	Ag BMP Soluble P Reduction	\$7,000.00	\$7,231.60	6/28/2018	N
Technical Assistance/Engineering	Agricultural Practices	Current State Grant	Ag BMP Soluble P Reduction	\$38,000.00	\$53,862.13	12/9/2019	N
Technical Assistance/Engineering	Agricultural Practices	Local Fund	Washington County	\$2,500.00	\$364.00	5/26/2016	Y
Technical Assistance/Engineering	Agricultural Practices	Local Fund	Watershed District	\$2,500.00			Y

Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
412 - Grassed Waterway and Swales	1	1	150 LINEAR FEET	150 LINEAR FEET
155M - Storm Water Retention Basins	1	1	0.02 AC	0.02 AC
638 - Water and Sediment Control Basin	1	1	0.16 AC	0.16 AC

Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
Agricultural BMPs	PHOSPHORUS (EST. REDUCTION)	50 LBS/YR	Lower St Croix	BWSR CALC (SHEET AND RILL)	

Final Indicators Summary

Indicator Name	Total Value	Unit
SEDIMENT (TSS)	58.80	TONS/YR
PHOSPHORUS (EST. REDUCTION)	93.30	LBS/YR

Grant Activity

Grant Activity - Administration			
Description	Tara Kelly, Landscape Restoration Specialist, is the Project Manager for this grant. The Project Manager will complete all project administration tasks. Project administration includes completion of all required BWSR reporting; coordination between the landowner, Washington Conservation District (WCD) board, and watershed districts; oversight of project design and installation work; and delegation of task to appropriate staff. The Project Manager will also ensure that the project stays on track for completing by December 2018. The project will follow the appropriate timeline and meet reporting requirements. Staff rates will be reviewed annually and revised based on the BWSR spreadsheet.		
Category	ADMINISTRATION/COORDINATION		
Start Date	23-Mar-16	End Date	31-Dec-18
Has Rates and Hours?	Yes		
Actual Results	Update 12/31/2016 Admin for 2016 included the development of a partner memo and meeting regarding the work flow. Update 12/31/2017 No Admin expenses to report for 2017.		

Grant Activity - Agricultural BMPs

Description	<p>This will be used reduce phosphorus discharges to the St. Croix by enhancing the soluble phosphorus removal capacity of an existing or newly constructed agricultural BMPs. Using urban stormwater technologies such as infiltration, iron sand filters, and other treatments, at least four agricultural stormwater practices will reduce a combination of both soluble and non-soluble phosphorus discharges by least 50 lb/year.</p> <p>Particulate phosphorus reductions on traditional BMPs will be calculated using BSWR Sheet/Rill. Soluble P reduction estimates will be calculated using the MIDSs calculator. Studies have shown that on average, 45% of the total phosphorus is in soluble form and of that, 88% was removed using iron-enhanced sand (http://www.sciencedirect.com/science/article/pii/S0043135412001728) and 84%-91% using Water Treatment Residual (http://pubs.acs.org/doi/abs/10.1021/es404022b). The reduction of soluble phosphorus for both treatments will be calculated conservatively at 50% of the total soluble phosphorus.</p> <p>Local watershed districts and/or landowners will be contributing match for the installation of agricultural BMPs.</p>		
Category	AGRICULTURAL PRACTICES		
Start Date		End Date	
Has Rates and Hours?	No		
Actual Results			

Activity Action - Ag IESF Filtration basin			
Practice	638 - Water and Sediment Control Basin	Count of Activities	1
Description	Pretreatment and Iron Enhanced Sand Filter Basin treating 189 acres of agricultural drainage.		
Proposed Size / Units	0.16 AC	Lifespan	10 Years
Actual Size/Units	0.16 AC	Installed Date	21-Sep-18
Mapped Activities	1 Point(s)		

Final Indicator for Ag IESF Filtration basin			
Indicator Name	SEDIMENT (TSS)	Value	22.9
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	MIDS
Waterbody	Lake St. Croix		

Final Indicator for Ag IESF Filtration basin			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	45.3
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	MIDS
Waterbody	Lake St. Croix		

Activity Action - Grass Waterway			
Practice	412 - Grassed Waterway and Swales	Count of Activities	1
Description			
Proposed Size / Units	150.00 LINEAR FEET	Lifespan	10 Years
Actual Size/Units	150.00 LINEAR FEET	Installed Date	30-Apr-18
Mapped Activities	1 Polygon(s)		

Final Indicator for Grass Waterway			
Indicator Name	SEDIMENT (TSS)	Value	25.6
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	MIDS
Waterbody	Lake St. Croix		

Final Indicator for Grass Waterway			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	24.9
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	MIDS
Waterbody	Lake St. Croix		

Activity Action - Carpenter Nature Center Filtration Basin			
Practice	155M - Storm Water Retention Basins	Count of Activities	1
Description	1000sf combined basins (x2) with iron enhanced 2 stage sand filter		
Proposed Size / Units	0.02 AC	Lifespan	10 Years
Actual Size/Units	0.02 AC	Installed Date	31-Oct-19
Mapped Activities	1 Point(s)		

Final Indicator for Carpenter Nature Center Filtration Basin			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	23.1
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	MIDS
Waterbody	St Croix River		

Final Indicator for Carpenter Nature Center Filtration Basin			
Indicator Name	SEDIMENT (TSS)	Value	10.3
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	MIDS
Waterbody	St Croix River		

Grant Activity - Project Development			
Description	<p>Project development will mostly focus on project promotion to landowners within the priority areas outlined in the the Top 50P! Rural Subwatershed Analysis and the 2014 St. Croix LCCMR Prioritization Rural Subwatershed Analysis. Targeted social media, letters, flyers, one on one conversations, and presentations will be used to engage landowners at high priority practice locations. Once these conservation practices are designed and installed, they will serve as models to continue to build relationships in the agricultural and rural community as well as demonstrate targeted implementation. The broader community also will be engaged on the benefits of these conservation practices via tours, presentations, local workshops, and regional conferences. WCD will utilize staff including Tara Kelly, James Landini, Angie Hong, Jenn Radtke, and Wendy Griffin to accomplish this portion of the project. Staff rates will be reviewed annually and revised based on the BWSR spreadsheet.</p>		
Category	PROJECT DEVELOPMENT		
Start Date	23-Mar-16	End Date	31-Dec-18
Has Rates and Hours?	Yes		
Actual Results	<p>Update 12/31/16 Project development for 2016 included team meetings, correspondence, and the development of partner memo.</p>		

Grant Activity - Technical Assistance/Engineering

Description	The technical and engineering portion of this project will include the design of the agricultural BMPs in locations that have been identified in the Top 50P! Rural Subwatershed Analysis and the 2014 St. Croix LCCMR Prioritization Rural Subwatershed Analysis. The Technical and Engineering assistance includes design, cost-share program coordination, construction observation and inspections of agricultural BMP projects. The MN Stormwater Manual and NRCS standards and guidelines will be used for designs. These services will be provided by Washington Conservation District (WCD) landscape restoration and engineering staff. The design and installation staff (years' experience) Tara Kelly M.S. (10), James Landini P.E. (13), Bryan Pynn M.L.A (10) and Mike Isensee (13). In the event that an identified agricultural BMP is beyond the capacity of in-house design and engineering staff, WCD will seek assistance from qualified engineering firms. Staff rates will be reviewed annually and revised based on the BWSR spreadsheet. Local watershed districts and Washington County will be contributing match for Technical/Engineering Assistance.		
Category	AGRICULTURAL PRACTICES		
Start Date	23-Mar-16	End Date	31-Dec-18
Has Rates and Hours?	Yes		
Actual Results	Update 12/31/2016 Technical assistance included the development of the Turner project. Update 12/31/2017 Technical assistance for Turner, Behrends, EkuInd, and Axdahl projects.		

Grant Attachments

Document Name	Document Type	Description
2016 Competitive Grant	Grant Agreement	2016 Competitive Grant - Washington Conservation District
2016 Competitive Grant Amendment	Grant Agreement Amendment	
2016 Competitive Grant Amendment_EXECUTED	Grant Agreement Amendment	
2016 Competitive Grant executed	Grant Agreement	2016 Competitive Grant - Washington Conservation District
Adjusted Financial Report	Grant	Ag BMP Soluble P Reduction
Ag BMP Soluble P! Billing report	Grant	Ag BMP Soluble P Reduction
Ag BMP Soluble P! Financial report	Grant	Ag BMP Soluble P Reduction
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 07/02/2019

Document Name	Document Type	Description
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 12/09/2019
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/30/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 10/08/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 09/26/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/30/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 07/02/2019
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 12/10/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/31/2017
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/01/2017
Application	Workflow Generated	Workflow Generated - Application - 08/28/2015
BC Notes on Project Lifespan	Grant	Ag BMP Soluble P Reduction
Billing report updated	Grant	Ag BMP Soluble P Reduction
C16-7245 Reconciliation Checklist	Journal	Journal Dated - 06/28/2019
December2018 Signed Financial Report	Grant	Ag BMP Soluble P Reduction
Financial Report 2019	Grant	Ag BMP Soluble P Reduction
Financial report updated	Grant	Ag BMP Soluble P Reduction
Invoices and Grant Log 2018-2019	Grant	Ag BMP Soluble P Reduction
Oct 2018 Signed Financial Statement	Grant	Ag BMP Soluble P Reduction
REquest for grant extension	Journal	Journal Dated - 12/02/2018
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 12/16/2015
grantmap_14772_2015-08-28_02-19-13-PM.jpg	Grant	Ag BMP Soluble P Reduction