



Grant All-Detail Report 2012 - Conservation Drainage

Grant Title - 2012 - Conservation Drainage - Yellow Medicine (SWCD)

Grant ID - C13-5494

Organization - Yellow Medicine SWCD

Grant Awarded Amount	\$30,595.00	Grant Execution Date	
Required Match Amount	\$7,648.75	Grant End Date	1/1/2020
Required Match %	25%	Grant Day To Day Contact	

Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$30,595.00	\$15,724.38	\$14,870.62
Total Match Amount	\$9,674.00	\$8,851.74	\$822.26
Total Other Funds	\$3,000.00	\$3,000.00	\$0.00
Total	\$43,269.00	\$27,576.12	\$15,692.88

**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
2012 CWF Anticipated Alternative Intakes	Conservation Drainage	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$9,194.00			N
2012 CWF Anticipated Alternative Intakes	Conservation Drainage	Local Fund	2012 CWF Drainage - Local Match	\$1,728.50			Y
2012 CWF Anticipated Control Drainage Structures/CAP130 Plans	Conservation Drainage	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$4,681.00			N

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
2012 CWF Anticipated Control Drainage Structures/CAP130 Plans	Conservation Drainage	Local Fund	2012 CWF Drainage - Local Match	\$2,825.00			Y
2012 CWF Doug Albin Bioreactor	Conservation Drainage	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$9,825.00	\$9,720.00	9/27/2012	N
2012 CWF Doug Albin Bioreactor	Conservation Drainage	Local Fund	2012 CWF Drainage - Local Match	\$3,275.00	\$3,239.50	9/27/2012	Y
2012 CWF Drainage - Admin/Coord	Administration/Coordination	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$1,225.00	\$1,225.00	3/3/2014	N
2012 CWF Drainage - Admin/Coord	Administration/Coordination	Local Fund	2012 CWF Drainage - Local Match	\$306.00	\$1,014.75	12/15/2015	Y
2012 CWF Drainage - Project Development	Project Development	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$1,960.00	\$1,960.00	9/6/2012	N
2012 CWF Drainage - Project Development	Project Development	Local Fund	2012 CWF Drainage - Local Match	\$490.00	\$3,735.69	6/24/2014	Y
2012 CWF Drainage - Project Development	Project Development	Other State funds not in eLINK	Grant from the MN Dept. of Ag for the 2012 Drainage Tour	\$3,000.00	\$3,000.00	9/25/2012	N
2012 CWF Drainage - Tech/Eng	Technical/Engineering Assistance	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$3,110.00	\$2,219.38	12/15/2015	N
2012 CWF Drainage - Tech/Eng	Technical/Engineering Assistance	Local Fund	2012 CWF Drainage - Local Match	\$778.00	\$590.30	2/13/2013	Y
2012-02 CWF Mark Wilson CAP130	Conservation Drainage	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$0.00			N
2012-02 CWF Mark Wilson CAP130	Conservation Drainage	Local Fund	2012 CWF Drainage Local Match	\$0.00			Y
2012-03 CWF Mark Wilson CAP130	Conservation Drainage	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$0.00			N
2012-03 CWF Mark Wilson CAP130	Conservation Drainage	Local Fund	2012 CWF Drainage Local Match	\$0.00			Y
CWF 2012-4 Garrett Cole	Conservation Drainage	Current State Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)	\$600.00	\$600.00	12/22/2015	N

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
CWF 2012-4 Garrett Cole	Conservation Drainage	Local Fund	2012 CWF Drainage local match	\$271.50	\$271.50	12/22/2015	Y

Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
170M - Alternative Tile Intake - Dense Pattern Tiling	1	1	300 LINEAR FEET	300 LINEAR FEET
747 - Denitrifying Bioreactor	1	1	1 COUNT	1 COUNT

Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
---------------	----------------	---------------	-----------	------------------	----------

Final Indicators Summary

Indicator Name	Total Value	Unit
SEDIMENT (TSS)	1.00	TONS/YR
NITROGEN	163.00	LBS/YR
PHOSPHORUS (EST. REDUCTION)	3.20	LBS/YR

Grant Activity

Grant Activity - 2012 CWF Anticipated Alternative Intakes

Description	<p>Offer up to 75% cost share, not to exceed \$300/intake, to replace 20 open intakes with alternative intakes reducing sediment and phosphorus loads improving water quality in the Lower Yellow Medicine River Sub-watershed.</p> <p>As of October 4th, 2012: The Yellow Medicine Soil & Water Conservation District made a request to BWSR, and it was approved to make the following changes to this project: Offer up to 75% cost share not to exceed \$300/rock inlet and offer up to 75% cot share not to exceed \$600/dense pattern tile inlet to replace open intakes with alternative intakes. This change was made due to the fact that the estimated cost to install rock inlets is \$400/inlet and the estimated cost to install dense pattern tile is \$800/inlet. Therefore, we feel it is necessary to offer different not to exceed amounts. The SWCD, along with BWSR, feel that we will see more of a reduction in phosphorus and sediment by promoting dense pattern tile inlets over rock inlets.</p> <p>On March 27, 2014 the SWCD requested BWSR to consider approving an amendment to revise our work plan to expand the geographic scope of this grant to include two extra adjacent minor watershed: #070200040102 and #07020040505; and to extend the grant deadline to December 31, 2015. The SWCD also requested to make the following change to our workplan: Increase the alternative intake category budgeted amount from \$6,000.00 to \$9,794.00 and decrease the control structure category by \$3,794.00.</p> <p>The grant was finalized on December 22, 2015.</p>		
Category	CONSERVATION DRAINAGE		
Start Date	14-Mar-12	End Date	22-Dec-15
Has Rates and Hours?	No		

Actual Results

As of 12/31/2013 no landowners in this Watershed have applied for replacing open intakes with alternative intakes. The SWCD sent two direct mailings, as well as, held meetings to promote this program.

On 4/18/2014 BWSR approved an amendment to revise our work plan to expand the geographic scope of this grant to include two extra adjacent minor watershed: #070200040102 and #07020040505; and to extend the grant deadline to December 31, 2015.

On May 6, 2014, the SWCD requested and was approved to make the following change to our work plan: Increase the alternative intake category budgeted amount from \$6,000.00 to \$9,794.00 and decrease the control structure category by \$3,794.00.

In June of 2014, Tyler Knutson sent notices to all landowners in new geographic area encouraging participation in program. As of 12/31/14 some landowners have shown interest, but unfortunately have not applied for cost share.

Unfortunately only one landowner signed up for cost share and one open intake was replaced with a dense pattern tile system.

Only \$600.00 of the \$9,794.00 was spent for contract CWF 2012-4 Garrett Cole to remove one open inlet. The project resulted in a reduction of phosphorus of 1.5tons/year and 1.0 tons/year of sediment. The remaining dollars \$9,194.00 will be returned to the State. In addition, the landowner share of \$271.50 on this project reduced the local/landowner budget to \$1,728.50.

Grant Activity - 2012 CWF Anticipated Control Drainage Structures/CAP130 Plans

<p>Description</p>	<p>Offer up to 75% cost share, not to exceed \$900/control drainage structure, to install 12 control drainage structures improving water quality in the Lower Yellow Medicine River Sub-watershed. On July 17, 2012 Matt Drewitz from BWSR approved the request to add CAP 130 and an additional control structure to the bioreactor contract. Therefore, the work plan was amended taking \$2,325.00 out of the Control Drainage Structure category and putting it into the bioreactor category.</p> <p>On March 27, 2014 the SWCD requested BWSR to consider approving an amendment to revise our work plan to expand the geographic scope of this grant to include two extra adjacent minor watershed: #070200040102 and #07020040505; and to extend the deadline to December 31, 2015. This was approved and the SWCD signed the amendment agreement on April 11, 2014.</p> <p>On March 27, 2014, the SWCD requested to make the following change to our workplan: Decrease the budget amount for control structures from \$8,475.00 to \$4,681.00 and add CAP130 Plans to the Control Structure category. When the original work plan was developed, the SWCD was unaware of the need for a CAP130 plan before control structures could be installed. CAP130 Plans will be cost shared at 75% not to exceed \$1,650/plan.</p>		
<p>Category</p>	<p>CONSERVATION DRAINAGE</p>		
<p>Start Date</p>	<p>14-Mar-12</p>	<p>End Date</p>	<p>22-Dec-16</p>
<p>Has Rates and Hours?</p>	<p>No</p>		

Actual Results

12/31/2013. Even though the SWCD has advertised and promoted Control Damage Structures in this Watershed, no landowners have applied for these funds. The SWCD will continue to promote these structures.

On March 27, 2014 the SWCD requested BWSR to consider approving an amendment to revise our work plan to expand the geographic scope of this grant to include two extra adjacent minor watershed: #070200040102 and #07020040505; and to extend the deadline to December 31, 2015. This Amendment was approved by BWSR on 4/18/2014.

On May 6, 2014, the SWCD was given the approval by Dave Sill, Board Conservationist, to make the following change to our work plan: Decrease the budget amount for control structures from \$8,475.00 to \$4,681.00 and to add CAP130 Plans to the Control Structure category.

In June of 2014, Tyler Knutson sent notices to all landowners in new geographic area encouraging participation in program. As of 12/31/14 some landowners have shown interest, but unfortunately have not applied for cost share.

One landowner signed up to complete two CAP130 plans. Unfortunately, he cancelled his contracts in December of 2015. No funds were spent for this activity. \$4,681.00 will be returned to the State.

Grant Activity - 2012 CWF Doug Albin Bioreactor			
Description	Install a wood chip bioreactor, with a control drainage structure for Doug Albin. The bioreactor will affect 130 acres. The project area is located in the Lower Yellow Medicine River Sub-Watershed. On July 17, 2012 Matt Drewitz from BWSR approved the request to add CAP 130 and an additional control structure to the bioreactor contract.		
Category	CONSERVATION DRAINAGE		
Start Date	22-Mar-12	End Date	27-Sep-12
Has Rates and Hours?	No		
Actual Results	<p>The bioreactor was installed and paid for on September 27, 2012. The initial application and work plan indicated that the area to be affected by this bioreactor was 130 acres. However, the landowner, along with technical considerations, changed the area to be affected to 21.5 acres. This in turn, changed the estimated pollution reduction for nitrogen from 650 lbs/year to 163 lbs/year and changed the estimated pollution reduction for phosphorus from 13 lbs/year to 1.7 lbs/year.</p> <p>Only \$9,720.00 of the funds for this activity were spent. \$105.00 will be returned to the State.</p>		

Activity Action - Legacy Migrated Data			
Practice	747 - Denitrifying Bioreactor	Count of Activities	1
Description	CAP 130 Drainage Water Mgmt. Plan was developed on July 10, 2012 by Michael Lehmann, Air Row Surveying, LLC. The bioreactor was installed and paid for on Sept. 27, 2012.		
Proposed Size / Units	1.00 COUNT	Lifespan	10 Years
Actual Size/Units	1.00 COUNT	Installed Date	27-Sep-12

Final Indicator for Legacy Migrated Data			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	1.7
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	Unknown
Waterbody			

Final Indicator for Legacy Migrated Data			
Indicator Name	NITROGEN	Value	163
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	Unknown
Waterbody			

Grant Activity - 2012 CWF Drainage - Admin/Coord

Description	Administer the Yellow Medicine SWCD's Clean Water Fund 2012 Conservation Drainage Grant for the Lower Yellow Medicine River Sub-Watershed. Administration; District Manager (Lou Ann Nagel) and Administrative Assistant (Nancy Dyrdaahl) will complete grant reporting and fiscal management of the grant. Reporting will be in the State eLINK Reporting Program as well as on the SWCD's website. The SWCD has the authority and responsibility to approve expenditures of funds and approve or deny projects and expenditures of funds and document in minutes.		
Category	ADMINISTRATION/COORDINATION		
Start Date	14-Mar-12	End Date	22-Dec-15
Has Rates and Hours?	No		
Actual Results	<p>As of 12/31/2013 the SWCD developed spreadsheets, forms & letters for operating drainage program. Entered information into the eLINK reporting system, as well as website reporting.</p> <p>On 4/18/2014 BWSR approved an amendment to revise our work plan to expand the geographic scope of this grant to include two extra adjacent minor watershed: #070200040102 and #07020040505; and to extend the grant deadline to December 31, 2015.</p> <p>On May 6, 2014, the SWCD requested and was approved to make the following change to our work plan: Increase the alternative intake category budgeted amount from \$6,000.00 to \$9,794.00 and decrease the control structure category by \$3,794.00.</p> <p>In 2014, the SWCD continued to administer this program by reporting in eLINK and the SWCD's website.</p> <p>The grant was completed on 12/22/2015. The SWCD spent all of grant funds for administration and coordination (\$1,225.00). The SWCD exceeded the amount of local match for administration and coordination by \$708.75.</p>		

Grant Activity - 2012 CWF Drainage - Project Development

Description	The SWCD staff (Lou Ann Nagel, District Manager; Ian Olson, Farm Bill Assistant and Nancy Dyr Dahl, Administrative Assistant) will develop letters, newsletters, and/or brochures promoting the installation of controlled drainage structures and alternative intakes and send them to landowners in the Lower Yellow Medicine River Sub-Watershed. The Minnesota Department of Ag and the SWCD will hold a drainage demonstration for contractors and the public on how to install bioreactors. Through various advertising, landowners will be invited to attend this field day. The Minnesota Agricultural Water Resource Coalition has indicated to the SWCD that they would like to be listed as a potential partner.		
Category	PROJECT DEVELOPMENT		
Start Date	14-Mar-12	End Date	22-Dec-15
Has Rates and Hours?	No		
Actual Results	<p>As of 7/31/2013 the SWCD made a list of landowners in the Lower Yellow Medicine River Sub Watershed. Sent letters/flyers to all landowners in the target area announcing the program. Developed a Drainage Committee and invited them to a meeting to discuss holding a demo/workshop in the county. Sent out invitations for the Drainage Field Day/Workshop.</p> <p>Prepared and held a Conservation Drainage Field Day and a Drainage Workshop demonstrating the latest technologies developed to remove nitrate from farmland runoff that drains through subsurface tiles. The Drainage Field Day was held at Doug Albin's, demonstrating his bioreactor and control structure. This event was sponsored by the SWCD, Minnesota Department of Ag, the University of Minnesota and the MN Corn Growers Association. Approximately 114 people attended the field day and 80 people attending the Drainage Workshop. The Department of Ag contributed \$3,000.00 towards the drainage workshop and field day.</p> <p>The SWCD continues to promote this grant through news releases, mailings & making one on one contacts.</p> <p>In June of 2014 notices were send to all landowners in the new geographic areas encouraging participation in this program. As of 12/31/2014 some landowners have shown interest, but unfortunately no one has signed any contract requesting cost share assistance.</p> <p>As of December 22, 2015 all of the project development grant money was spent. The local match for the project development money far exceeded the projected \$490.00. A total of \$3,735.69 was spent for the local match.</p>		

Grant Activity - 2012 CWF Drainage - Tech/Eng

Description	Provide technical and engineering staff through the Southwest Prairie Technical Service Area (Russell Hoogendoorn, PE and Mike Skoglund, Engineering Technician) to survey, design, complete construction inspection, signoff and provide operation and maintenance for the bioreactor and controlled drainage structures. Ian Olson, Yellow Medicine SWCD; Cory Walker, NRCS District Conservationist; and Jon Paul Pringle, NRCS Technician will assist TSA with survey and design. Practices will be installed according to the USDA Natural Resources Conservation Service Field Office Technical Guide (Minnesota Interim Standard 747 Denitrifying Bioreactor and Minnesota Standard 554 Drainage Water Management Control Subsurface Structure). All technical approval authority documentation is available upon request. Mark Dittrich, Minnesota Department of Ag and Jeff Strock, University of Minnesota Lamberton Experiment Station, will be assisting with technical aspects of this grant. Alternative tile intakes will be installed following guidelines and research from University of Minnesota (John Moncrief).		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	14-Mar-12	End Date	22-Dec-15
Has Rates and Hours?	No		

Actual Results

Reporting as of 12/31/2013:

July 2012, Ian Olson, SWCD technician, met with Doug Albin, Southwest Prairie Technical Service Staff, Department of Ag, DNR and Contractor to determine the placement of the Bioreactor and to work out project details. The Bioreactor was constructed on July 27th, 2012. Russell Hoogendoorn and Mike Skoglund provided technical and engineer assistance to for Doug Albin's Bioreactor. Olson also assisted with project. Project was installed according to the USDA Natural Resources Conservation Service Field Office Technical Guide – Interim Standard 747 Denitrifying Bioreactor.

In 2012, technical and project development assistance was provided to a landowner to install a Vegetated Subsurface Drain Outlet (NRCS standard 739). This practice provided additional nitrate-nitrogen filtration of subsurface drain water through the process of diverting drainage water through a control structure and into a distribution pipe. As the water passed through the distribution pipe it creates an elevated zone of soil saturation. This allows plants to uptake the available water and nutrients prior to water expulsion into the outlet source. The project was completed on December 3, 2012. This project will be monitored over the course of the next several years to document total nitrogen reduction efficiency. This was the first installation of a Saturated Buffer in the State of Minnesota and the Yellow Medicine Field Office played an integral role in working with local, state, and federal agencies to insure special provisions were permitted for this innovative demonstration.

In 2014, the SWCD Farm Bill Assistant, Tyler Knutson continued to provide technical assistance for this program.

On December 22, 2015 the grant was completed. The SWCD only spent \$2,219.38 of the grant dollars for technical assistance. \$890.62 will be returned to the State. The local match for technical assistance was \$590.30.

Grant Activity - 2012-02 CWF Mark Wilson CAP130

Description	Develop CAP 130 plan in Hazel Run Township, Section 4.		
Category	CONSERVATION DRAINAGE		
Start Date		End Date	22-Dec-15
Has Rates and Hours?	No		
Actual Results	Cancelled per owner request. Project was not completed within timeline.		

Grant Activity - 2012-03 CWF Mark Wilson CAP130			
Description	Develop CAP130 Plan in Hazel Run Township, Section 7.		
Category	CONSERVATION DRAINAGE		
Start Date		End Date	22-Dec-15
Has Rates and Hours?	No		
Actual Results	Contract cancelled per owner request. Project was not completed within time range.		

Grant Activity - CWF 2012-4 Garrett Cole			
Description	Install dense pattern tile/subsurface drain in Section 13 of Hazel Run Township.		
Category	CONSERVATION DRAINAGE		
Start Date	2-Nov-15	End Date	22-Dec-15
Has Rates and Hours?	No		
Actual Results	One dense pattern tile/subsurface drain installed in Hazel Run Township, section 13.		

Activity Action - Alternative Intake			
Practice	170M - Alternative Tile Intake - Dense Pattern Tiling	Count of Activities	1
Description	Removed Open Inlet installed 300 feet of 5" perf tile at tee		
Proposed Size / Units	300.00 LINEAR FEET	Lifespan	20 Years
Actual Size/Units	300.00 LINEAR FEET	Installed Date	18-Nov-15

Final Indicator for Alternative Intake			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	1.5
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	Other
Waterbody	County Ditch 39		

Final Indicator for Alternative Intake			
Indicator Name	SEDIMENT (TSS)	Value	1
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	Other
Waterbody	County Ditch 39		

Grant Attachments

Document Name	Document Type	Description
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/07/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/16/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/08/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/07/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/02/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 03/27/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/18/2014
Amendment	Grant Agreement	Yellow Medicine SWCD-2012
FW Request change to 2012 CWF Drainage Grant Workplan Land Water Description.txt	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)
FY2012 Yellow Medicine Conservation Drainage email update	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)
Map showing Revision to 2012 CWF DWM watershed boundaries	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)
Revised Revision to 2012 Conervaiton Drianage Grant	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)
Yellow Medicine SWCD FY12 Con. Drainage revision grant_app_general-added.rpt	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)
grant_app_general.rpt	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)
narrative requesting revision to 2012 CWF DWM Grant for Yellow Medicine SWCD	Grant	2012 - Conservation Drainage - Yellow Medicine (SWCD)