2010 - Conservation Drainage - Middle Fork Crow River (WSHED)

Fund Report

Middle Fork Crow River WSHED

Fund Information

Fund Name	Fund Year	Budgeted	Spent	Date Last Spent
2010 - Conservation Drainage - Middle Fork Crow River (WSHED)	2010	$15,602.00	$2,692.30	02/02/2011
Starting Balance: $15,602.00				
Balance Remaining: $12,909.70				
Other funds used with this fund.				
Landowner Contribution to Conservation Drainage Grant	2010	$377.03	$377.03	01/28/2011
NRCS Contribution to Conservation Drainage Grant	2010	$0.00	$0.00	
MFCRWD Cash Contribution to Conservation Drainage Grant	2010	$0.00	$0.00	02/02/2011
MFCRWD In-kind Contribution to Conservation Drainage Grant	2010	$932.00	$932.00	02/02/2011
Local Contribution for Conservation Drainage Grant 2010	2010	$1,556.00	$3,116.86	01/28/2011
	Subtotal:	$2,865.03	$4,425.89	
	Total:	**$18,467.03**	**$7,118.19**	

Initiatives Summary

Amount spent by initiative type.

2010 - Conservation Drainage - Middle Fork Crow River (WSHED)

	Budgeted	Spent
Admin/Coordination	$486.00	$232.50
Education/Information	$890.00	$200.00
Land Water Treatment	$0.00	$0.00
Monitoring/Data Collection	$3,530.00	$758.72
Total:	**$4,906.00**	**$1,191.22**

Land & Water Projects Summary

Amount spent on L&W Projects.

	Budgeted	Spent
Total:	**$10,696.00**	**$1,501.08**

BMP Summary

BMP Name	BMPs entered	BMPs installed*	Linear Ft.	Total Acres	Mapped BMPs
Drainage Water Management - 554	1	0		4.00	1
Totals:	**1**	**0**			**1**

**Note: BMPs entered in eLINK are considered to be "installed on the ground" if an "actual completion date" has been entered for the project.*

Indicator Summary

	Value	Unit

**Pollution Reduction Estimates not entered for any of these projects.*

Initiative: 2010 Conservation Drainage Pilot Project - MFCRWD Admin

Year: 2010

Start Date:

Initiative Type: Admin/Coordination

Completion Date:

Description

Administration and Coordination will entail ensuring compliance with all grant requirements, including reporting and budget monitoring. Coordination will be the responsibility of the Watershed District, and will entail the organization and scheduling of all project elements, i.e. installation of water control structures, sampling, data collection, etc.

Actual Results

May-Jun 2010: Administrative efforts focused exclusively on work plan development.
Jul-Dec 2010: Administration included a meeting with Joel Peterson (BWSR) to discuss necessary work plan changes and future activities, reviewing reporting requirements, uploading of the first report, the execution and subsequent payment of a cost share contract with a property owner, budget management and other necessary grant administration.

FUND(s)

	Budgeted	*Spent*	*Date Last Spent*
1. Local Contribution for Conservation Drainage Grant 2010	486.00	415.00	1/28/11
2. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)	486.00	232.50	1/28/11
Totals:	**972.00**	**647.50**	

Initiative: 2010 Conservation Drainage Pilot Project - MFCRWD Land Water Treatment

Year: 2010

Start Date:

Initiative Type: Land Water Treatment

Completion Date:

Description

Grant funds and match (MFCRWD, NRCS, Landowner) will be transferred to specific Land & Water Projects as they are incurred. [One project site has been identified for both the control and the experimental sites. Projects has been set up/mapped in the Land & Water Projects module under Behm Conservation Drainage.]

Actual Results

Grant Funds ($10,696.00) and Local Contribution ($3,960.00) were initially set up in this Initiative, but now have been transferred out to the appropriate Land & Water Project.

May-Jun 2010: Activites at the outset of the grant were focused on surveying the fields that had been selected by the naked eye. Unfortunately, field surveys (conducted by NRCS) determined that neither of the two fields that had been identified were viable for the conservation drainage practice. Efforts were then directed to identifying another viable field and willing property owner.

Jul-Dec 2010: Upon identification of the willing property owner, surveys were again conducted on the field, which determined that the water control structure could treat up to 4 acres - not ideal, but per BWSR staff (J. Peterson), acceptable. The water control structure was then installed - only one was used, which will substantially reduce the amount of money required for this element.

FUND(s)

		Budgeted	*Spent*	*Date Last Spent*
1. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)		0.00	0.00	1/28/11
2. Local Contribution for Conservation Drainage Grant 2010		0.00	0.00	1/28/11
	Totals:	**0.00**	**0.00**	

Initiative: 2010 Conservation Drainage Pilot Project - MFCRWD Monitoring

Year: 2010

Start Date:

Initiative Type: Monitoring/Data Collection

Completion Date:

Description

As listed in the Land & Water Treatment section, the project will consist of the installation and management of a single water control structure in a previously tiled field. Two main tile lines drain the same field; monitoring stations will be established in both lines. Drainage water management techniques (stop logs) and flow monitoring equipment will be installed within the experimental tile line while the control tile line will have only the flow monitoring equipment installed.

Data collection at both sites will include water Q, water quality sampling for total P, dissolved P, and nitrate N concentrations, as well as precipitation. Because the field contains open tile inlets, TSS will also be monitored, budget permitting. Water quality sampling will be conducted within the tile lines using grab samples. Q will be collected within the control structure as well using Agriflo flow (stage/velocity) meters. Precipitation data will be collected using Hobo tipping-bucket rain gauges. Field elevation survey data will be collected to determine microwatersheds within the field and allow for the determination of nutrient loading per unit area. Additional information collected by the producer will be fertilizer and pesticide application rates, as well as harvest rates (bushels per acre); the producer's GPS and appropriate software packages will allow for this information to be compiled.

Water quality sampling will be conducted every 2 weeks (weather and flows permitting), and flow and precipitation data will be downloaded every 2 weeks.

Actual Results

May-Jun 2010: The only activity that took place under the Monitoring element in this reporting period was the purchase of new equipment for monitoring.
Jul-Dec 2010: These months were riddled with frustrations with monitoring the water within the tiles. Much time and effort was invested into installing and programming flow equipment, and in troubleshooting the issues that the equipment was causing. In the end, precipitation data is great, we have water quality data on one occasion from both sites, but flow data is questionable. 2011 will require another concentrated effort to provide solid data.

FUND(s)

		Budgeted	*Spent*	*Date Last Spent*
1. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)		3,530.00	758.72	1/28/11
2. Local Contribution for Conservation Drainage Grant 2010		930.00	2,456.36	1/28/11
	Totals:	**4,460.00**	**3,215.08**	

Initiative: 2010 Conservation Drainage Pilot Project - MFCRWD Education/Info

Year: 2010

Start Date:

Initiative Type: Education/Information

Completion Date:

Description

Project education and outreach will be coordinated by the MFCRWD in cooperation with other project partners to ensure widespread attendance. Toward the end of the second year of data collection and upon analysis of preliminary results, should the results warrant, an informational session will be held at the experimental plot, area producers will be invited, and a presentation on the project setup, logistics, costs, and results will be provided.

Actual Results

May-Jun 2010: No education activities occurred during this period.
Jul-Dec 2010: Literature was collected for and distributed to the property owners who were considering the insallation of the water control structure in their field. One member of the District staff attended the Drainage Water Management field day at the University of Minnesota's Southwest Research and Outreach Center in Lamberton. A small article describing the project and presenting the idea of conservation drainage was written for the District's annual report.

FUND(s)

		Budgeted	*Spent*	*Date Last Spent*
1. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)		890.00	200.00	1/28/11
2. Local Contribution for Conservation Drainage Grant 2010		140.00	245.50	1/28/11
	Totals:	**1,030.00**	**445.50**	

Project: Lilleberg Conservation Drainage - Kandiyohi

Project Number:

Primary Cooperator: Nick Lilleberg

Primary Practice:

Approval Date:

Start Date:

Completion Date:

Description

The Kandiyohi County field is 80 acres, and contains some elevation differences that will allow for the effective control of water from approximately 20 acres. It will require the collection of baseline data during year one of the pilot, including water Q within the main tile line, water quality sampling for total P, dissolved P, and nitrate N concentrations, as well as precipitation. The infrastructure for one water control structure will be installed in late spring, 2010, to allow access for equipment installation and water quality sampling. Stop boards will not be deployed in this field until the first season of data is collected. Corn has been planted in 2010, and to reduce crop-introduced variability, corn will be planted again in the same field in 2011. Additional information collected by the producer will be fertilizer and pesticide application rates, as well as harvest rates (bushels per acre). The second year of the project will entail data collection of all parameters described above, and a comparison of second year to first year results.

Actual Results

May-Jun 2010: Activites at the outset of the grant were focused on surveying the fields that had been selected by the naked eye. Unfortunately, field surveys (conducted by NRCS) determined that neither of the two fields that had been identified were viable for the conservation drainage practice. Efforts were then directed to identifying another viable field and another willing property owner. Mr. Lilleberg was thanked for his time and interest, and informed that we would hopefully work with him on a separate future project.

BMP(s)

0.

None

POLLUTION REDUCTION ESTIMATE(s)

None

FUND(s)

	Budgeted	Spent	Date Last Spent
1. Landowner Contribution to Conservation Drainage Grant	0.00	0.00	
2. MFCRWD Cash Contribution to Conservation Drainage Grant	0.00	0.00	
3. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)	0.00	0.00	
4. NRCS Contribution to Conservation Drainage Grant	0.00	0.00	
5. MFCRWD In-kind Contribution to Conservation Drainage Grant	0.00	0.00	
Totals:	**0.00**	**0.00**	

Project: Lilleberg Conservation Drainage - Meeker

Project Number:

Primary Cooperator: Nick Lilleberg

Primary Practice:

Approval Date:

Start Date:

Completion Date:

Description

The Meeker County field is 40 acres, with more gradual elevation differences than the Kandiyohi County field, likely allowing for the effective control of water for the majority of the plot. Activities in the second field will entail the installation of two water control structures, one at the end of the main tile line and the other at a location that will account for approximately one-half the total area of the field. The installation of the two water control structures will allow for a same-field study of the effects of the structures on volume, nutrient export, and possibly yield. Stop logs will be deployed in the uppermost control structure (accounting for approximately one half the field), and raised or lowered by the producer as needed. As in the Kandiyohi County field, water samples will be collected for laboratory analysis of total P, dissolved P, and nitrate N concentrations; water flow within the main tile line will be monitored, as will precipitation via tipping-bucket rain gauges. Information collected by the producer will be fertilizer and pesticide application rates, as well as harvest rates (bushels per acre). This field will be planted in soybeans in 2010, and corn in 2011. The location of the monitoring stations in the field should allow for single year comparisons of the experimental and control sections of the field. An anticipated field educational session will likely take place at this site during late summer, 2011.

Actual Results

May-Jun 2010: Activites at the outset of the grant were focused on surveying the fields that had been selected by the naked eye. Unfortunately, field surveys (conducted by NRCS) determined that neither of the two fields that had been identified were viable for the conservation drainage practice. Efforts were then directed to identifying another viable field and another willing property owner. Mr. Lilleberg was thanked for his time and interest, and informed that we would hopefully work with him on a separate future project.

BMP(s)

0.

None

POLLUTION REDUCTION ESTIMATE(s)

None

FUND(s)

	Budgeted	Spent	Date Last Spent
1. MFCRWD In-kind Contribution to Conservation Drainage Grant	0.00	0.00	
2. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)	0.00	0.00	
3. MFCRWD Cash Contribution to Conservation Drainage Grant	0.00	0.00	
4. NRCS Contribution to Conservation Drainage Grant	0.00	0.00	
5. Landowner Contribution to Conservation Drainage Grant	0.00	0.00	
Totals:	**0.00**	**0.00**	

Project: Behm Conservation Drainage

Project Number: K-4-10
Primary Cooperator: Gordon Behm
Primary Practice:

Approval Date: 8/3/2010
Start Date: 07/22/2010
Completion Date:

Actual Results

May-Jun 2010: Activites at the outset of the grant were focused on surveying the fields that had been selected by the naked eye. Unfortunately, field surveys (conducted by NRCS) determined that neither of the two fields that had been identified were viable for the conservation drainage practice. Efforts were then directed to identifying another viable field and willing property owner.

Jul-Dec 2010: Upon identification of the willing property owner, surveys were again conducted on the field, which determined that the water control structure could treat up to 4 acres - not ideal, but per BWSR staff (J. Peterson), acceptable. The water control structure was then installed - only one was used, which will substantially reduce the amount of money required for this element. The landowner will work with MFCRWD staff on manipulation of the stop logs again during 2011.

BMP(s)

1. Drainage Water Management-554 *Mapped* = Yes

POLLUTION REDUCTION ESTIMATE(s)

None

FUND(s)

	Budgeted	Spent	Date Last Spent
1. 2010 - Conservation Drainage - Middle Fork Crow River (WSHED)	10,696.00	1,501.08	2/2/11
2. NRCS Contribution to Conservation Drainage Grant	0.00	0.00	
3. MFCRWD Cash Contribution to Conservation Drainage Grant	0.00	0.00	2/2/11
4. Landowner Contribution to Conservation Drainage Grant	377.03	377.03	1/28/11
5. MFCRWD In-kind Contribution to Conservation Drainage Grant	932.00	932.00	2/2/11
Totals:	**12,005.03**	**2,810.11**	

End of 2010 - Conservation Drainage - Middle Fork Crow River (WSHED) Section

This report can be found in the eLINK Report Manager under Report Type: *Fund Reports*, Reports: *All Details*