Scott

Watershed Management Organization

January 28, 2019

4:00 PM

Scott County Government Center

County Board Room
AGENDA
Scott WMO – Watershed Planning Commission Meeting

January 28, 2019
4:00 PM

Government Center
County Board Room

Call to Order 4:00 PM  Action

Approval of Agenda  Action

Election of Officers for 2019  Action

Approval of Meeting Minutes  Action
December 17, 2018

Staff Reports
Scott SWCD  Information
Scott WMO  Information

Old Business
Project Updates  Information

New Business
Overview of the Prior Lake – Spring Lake Watershed District,  Information
Diane Lynch Administrator
2019 Meeting Dates  Action
2019 Overview  Information

Adjourn  Action
MINUTES

Scott County WMO – Watershed Planning Commission

County Boardroom

December 17, 2018

Members Present:
Brian Schmidt
Mark Vierling
Joe Thill
Rita Weaver
Jim Schwingler

Staff Present:
Paul Nelson
Melissa Bokman
Ryan Holzer
Beverly Cox-Alexander

Others Present:
Troy Kuphal
Tom Wolf
Jesse Carlson

Absent:
Virgil Pint

CALL TO ORDER

Chair Schwingler called the meeting to order at 4:00 PM.

- Specific details and video of the entire December 17, 2018 Scott County WMO Watershed Planning Commission Meeting is available for viewing on the Scott County Website.
- Click on the link below to view the video:
- [Scott Watershed Commission 12/17/18 Meeting Video](#)
APPROVAL OF AGENDA:

Motion by Commissioner Vierling; Second by Commissioner Schmidt to approve the December 17 agenda. The motion carried unanimously.

APPROVAL OF NOVEMBER 26, 2018 MEETING MINUTES:

Motion by Commissioner Vierling; Second by Commissioner Schmidt to approve the November 26, 2018 minutes as written and presented. The motion carried unanimously.

STAFF REPORTS:

SCOTT SWCD:

Troy Kuphal provided SWCD highlights and updates.

- Technical Assistance and Cost Share Requests
  - Closing out a lot of projects that have been on the books for several years.

- Soil Health / Cover Crops
  - Held a Cover Crop Fall tour on November 20th with 13 people in attendance.

- Clean Water Education Program
  - Created a raingarden “How To” video for use in workshops and marketing.

- Equipment Rental Use
  - Brillion Seeder used for establishing buffers
  - Great Plains Drill used for seeding native prairie
  - John Deere Drill used for no till cover crop seeding
  - Interseeder used for seeding

- WMO TACS Program Action by SWCD Board (Pending SWCD Board Meeting December 18th)
  - New Applications
    - Tim O’Loughlin – Conservation Cover
  - Payments Certified
    - Dave Sticha
    - Scott County Parks
    - Mary Bender
Ryan Sticha
- Amendments
  - Gary Anderson
  - Scott Sharkey
  - Lowell Schmitz

Scott WMO:

Paul Nelson provided WMO updates

- Two (2) Commissioners Terms are complete.
  - Commissioner Pint is eligible for an additional term, he has reapplied and we are currently awaiting Board Approval.
  - Commissioner Thill has served (11) years and his term is complete. We are very Thankful for his years of service.
  - The Mankato State Water Resource Center has a grant to go out in the MN River Basin and write several success stories and release them through the press /media.
  - Paul Nelson enjoyed a (2) hour interview discussing Sand Creek.

NEW BUSINESS

Cates Lake Outlet – City of Savage

Jesse Carlson, City of Savage Water Resource Manager provided an overview

Cates Lake
- Landlocked Basin
- Drainage Area 103 Acres
- High Water Levels (1991)
- OHWL: 930.4
- Average (10-Year Period): 931.8
- 154th Street Overtopping Elevation: 933.6
- Highest Recorded: 933.7
- Low Building Elevation: 938

Cates Lake Temporary Outlet
- Constructed 1996
- Gate Valve / Mechanical Operation
- Drawdown Elevation: 932.9
- Drawdown Target Elevation: 931.4
- Drawdown Timing:
  - Spring / Early Summer
  - Fall
- Discharge to DNR Wetland: 171W
- Overflows into PLA and Infiltrates
Reviewed (2) options for Cates Lake Permanent Outlet Flow Path

- Option (1) Discharge through Independent Storm Sewer and into Scott County Storm Basin
- Option (2) Discharge through Big Sky Development and into Scott County Storm Basin
  - Preferred approach is option (2) as it creates more of a permanent pond.

Cates Lake Discharge

<table>
<thead>
<tr>
<th>Storm Event</th>
<th>Discharge (CFS)</th>
<th>Outflow Volume (Acre-Feet)</th>
<th>Cates Lake Water Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-year, 24-Hour</td>
<td>0.35</td>
<td>7.03</td>
<td>930.71</td>
</tr>
<tr>
<td>10-Year, 24-Hour</td>
<td>1.5</td>
<td>19.62</td>
<td>931.14</td>
</tr>
<tr>
<td>100-Year, 24-Hour *</td>
<td>2.83</td>
<td>45.32</td>
<td>931.97</td>
</tr>
<tr>
<td>100-Year, 10-Day Snowmelt **</td>
<td>2.69</td>
<td>62.46</td>
<td>931.87</td>
</tr>
<tr>
<td>100-Year, 24-Hour (No Outlet)</td>
<td>0</td>
<td>0</td>
<td>932.06</td>
</tr>
<tr>
<td>100-Year, 10-Day (No Outlet)</td>
<td>0</td>
<td>0</td>
<td>932..64</td>
</tr>
</tbody>
</table>

*7.6 day drawdown
**10 day drawdown

Costs

- Discharge through Independent Storm Sewer and into Scott County Storm Basin: $738,000
- Discharge through Big Sky Development and into Scott County Storm Basin: $350,000

Permitting

- DNR – Advisory / No permitting needed
- PLSLWD – No Discharge from Landlocked Basin
- FEMA – No permitting required
- SCOTT WMO – Permit required

OLD BUSINESS

Project Updates

Project updates provided by Ryan Holzer

- The Riparian Buffer planting in Le Sueur County has been finalized between the landowner and the consulting group, Great River Greening.
  - The WMO has funding available to cover the cost
  - (800) trees / shrubs of the bare root stock will be planted this spring in the buffer
  - The site is located on the south side of County Rd 19 on Sand Creek
Project updated provided by Melissa Bokman

- As part of the Chloride projects the WMO is working on (500) blue cups were created along with a flyer explaining the WMO is working towards reducing Chloride. Credit River, Sand Creek and Ravine Stream are all impaired with too much Chloride.
- Training dates and locations are set for 2019 with the first training to be held on January 16th.
- All Ground Water Result letters have been mailed.
- The WMO is moving forward with a contract between Three Rivers to add Cleary Lake to the list of lakes to treat for Curly Leaf.
- The WMO presented Commissioner Thill with a poster of accomplishments completed during his terms.

Draft MPCA Lower Minnesota River Basin WRAPS Report

Paul Nelson presented his review of the Draft MPCA Lower MN River Basin WRAPS Report

- Paul Nelson attended the MPCA meeting on December 12th and has completed his review of the Draft Report.
- The draft report is very well written.
- It was found in the MN River Basin that extends from the MN River at Ft. Snelling to Mankato most of the waters are impaired with some type of water quality problem.
- They took the monitoring data and created a computer model where they simulated the movement of pollutants. This allowed the model to ask “what if” questions.
- In the review, Paul Nelson found the water quality modeling results for “Total Phosphorus and Total Suspended Solids” for Sand Creek are significantly different than the Scott WMO monitoring and modeling results.
- The practices they simulated are fairly similar to what the WMO has identified as necessary, with the exception that the WMO places more emphasis on runoff reducing practices.
- Paul Nelson requested the Commissioners to advise on commenting, which he is inclined to comment back by the end of the month regarding the WMO’s issue regarding their results; however it is not expected for them to re-calibrate their model.

MPCA USEPA 319 Small Watersheds Grant Prioritization

- The WMO has been selected for the Small Watershed Grant Program.
- The MPCA is writing a 9 element plan which is required by the EPA.
- The MPCA is working as fast as possible, but at this time they are unsure of the schedule for producing the plan.
- Scott WMO will be the first of the 10 watersheds they are putting the plan together for.

U of M Resilient Communities Project – Diversifying Agriculture with Perennial Crops

Paul Nelson provided an overview of the findings of students who worked on the University of Minnesota Resilient Communities Project – Diversifying Agriculture with Perennial Crops

- Paul Nelson attended their final presentation on December 11th.
• The students developed a script and interviewed a number of people to try to identify barriers and opportunities.
• Barriers is identified as the uncertainty of growing certain perennial crops
  o Investment is sometimes up front
  o Support programs are generally geared more towards corn and beans than perennial crops
  o Markets
  o Culture
• Opportunities
  o Time for change
  o Programs are out there; add incentives for Perennial Crops
  o Economics
  o Outreach

NEW BUSINESS:

Technical Assistance and Cost Share Project

Craig Scheffler Native Prairie Application

The Craig Scheffler Application is for the reduction of sediment and nutrients along with runoff reduction to Cody and LeMay (Duban) Lakes by the installation of a Native Prairie Planting.

The total cost of the project is estimated at $53,150.00 with a proposed amount of $50,900.00 coming from the WMO. These funds are comprised of both incentive payment and cost-share for establishment. The landowner would contribute the remaining $2,250.00.

Calculations for the environmental benefit include a total of 391 tons of sediment and 450 pounds of phosphorus saved along with a runoff reduction of 90 acre-feet for the life of the contract, which assumes 10 years. This project’s requested funds would come from the Environmental Protection Agency (EPA) funding and is within the remaining balance.

Motion by Commissioner Thill; Second by Commissioner Weaver to approve the Craig Scheffler Native Prairie Application as written and presented. The motion carried unanimously.

ADJOURN MEETING

Motion by Commissioner Thill and Second by Commissioner Vierling to adjourn the meeting at 5:31 PM. The motion carried unanimously.
Jim Schwingler  
Chair, Watershed Planning Commission

Beverly Cox-Alexander  
Secretary
Staff Reports
TECHNICAL ASSISTANCE AND COST SHARE REQUESTS

SOIL HEALTH/COVER CROPS
- Participated in a Cover Crop Workshop planning meeting with Scott WMO, and the Carver, Le Sueur, and Rice SWCDs. We will partner to put on a Cover Crop workshop on March 14.
- Sent monthly Cover Crop Updates email

CLEAN WATER EDUCATION PROGRAM (SCWEP)
- Scheduled Annual SCWEP Partner meeting for January 22.
- Attended the joint board meeting of the Scott County Commissioners and Three River Park District Commissioners on December 6th where SWCD Supervisor, Doug Schoenecker presented them with the 2018 Conservation Leader award.
- Attended the MASWCD Outstanding Conservationist Luncheon where Scott County in Partnership with Three Rivers Park District was recognized as Outstanding Conservationists.
- Four SWCD articles were published in the Scott County SCENE including: Elected officials learn about conservation during fall tour, SWCD Board members reelected, Landowners improve water quality by reducing erosion, and Aerial seeded cover crops keep soil form eroding.

INVENTORY AND ASSESSMENT/PLANNING
- Contracted Houston Engineering Inc. (HEI) to assist with PTMAppl modeling. HEI developed the modeling program and will provide technical assistance and QC final products produced by SWCD staff.

ZONING SUPPORT - COUNTY
- Assisted Rehbein Ag with stockpiling guidance for Dave O’Brien lime applications
- Consulted with MN Extension service staff regarding grading questions and facility improvements at Mulligan Manor Horse farm
- Began guidance with James Dobihal for administrative permit application

LIVESTOCK OPERATION ASSISTANCE
- No activity

WATER QUALITY, GROUNDWATER AND RAINFALL MONITORING
- SWMO
  - No Activity
- Groundwater Level Observation Wells
  - No Activity
• **Volunteer Rainfall Monitoring**

![Graph showing rainfall data for each month from January to December, with a comparison to the average rainfall (Jordan Field Office, 1980-2015).]

**CONSTRUCTION EROSION CONTROL – COUNTY/CREDIT RIVER**

![Graph showing inspections and plan reviews over time, categorized by Permit, Development, Highway, and Plan Reviews.

**WETLAND CONSERVATION ACT - STATE**

• **TEP Meetings**
  - PLSLWD Sutton Lake Outlet Channel - Boundary/Type (Sand Creek Township)
  - JW Asphalt, Shaun Johnson - Boundary/Type (Belle Plaine Township)

• **Notices of Application**
  - Jamie Michael - Boundary/Type Application (Spring Lake Township)
  - Ben Pickar – Driveway Replacement Plan Application (New Market Township)

• **Notices of Decision**
  - JW Asphalt, Shaun Johnson- Delineation Concurrence (Belle Plaine Township)
  - Safety Signs Site Relocation Replacement Plan (New Market Township)

• **Enforcement/compliance**
  - No activity

• **Other WCA Reviews and Activity**
  - Revised certified delineator list

• **Helena Wetland Bank**
  - Completed native prairie seeding all seed zones of Helena Wetland Bank
  - Finalized paperwork needed to secure Helena Township approval for vacating their easement
  - Received Army Corps comments on Project Prospectus

**OTHER ACTIVITIES**

**Buffer Law**
  - Updated BuffCAT compliance, 6 changed to “yes” and 8 changed to “needs review”

**Tree Program (SWCD)**
  - As of January 7, we have received 62 orders and sold 5,050 trees
SWCD Staff Report
January 2019

- Preparing article and order form to be inserted in February SCENE

Cooperative Weed Management (CWM) Program
- Received MDA grant award for $10,000 for Wild Parsnip removal and CWMA program continuation

Website/Social Media

Cooperative Weed Management (CWM) Program
- Preparing presentation to Scott County Board in January relating to singing MOU

Buffer Law (STATE)
- Posted the Buffer Compliance Monitoring Plan to the website.
- Provided technical assistance to 3 landowners for measuring buffers.
- Received 1 new request for measuring assistance next spring.

Tree Program (SWCD)
- Received 39 orders for 99 bundles of trees

EQUIPMENT RENTAL USE

Page 3 of 5
# WMO TACS PROGRAM ACTION BY SWCD BOARD (JAN '19)

<table>
<thead>
<tr>
<th>Cooperator</th>
<th>Project/ID</th>
<th>Action</th>
<th>Grant/ID</th>
<th>Contract #</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New applications</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casey Acres Inc</td>
<td>Cover Crop/CP-18-183</td>
<td>Approval</td>
<td>SWMO 2019 LGF</td>
<td>WMO 19-04</td>
<td>$12,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SWCD 2017 CWF LMR/C17-1253</td>
<td>SWCD 19-01</td>
<td>$10,000</td>
</tr>
<tr>
<td>Bisek Bros</td>
<td>Whole Farm Planning/CP-18-224</td>
<td>Approval</td>
<td>SWMO 2019 LGF</td>
<td>WMO 19-03</td>
<td>$1,000</td>
</tr>
<tr>
<td>Mark Klehr</td>
<td>Whole Farm Planning/CP-18-220</td>
<td>Approval</td>
<td>SWMO 2019 LGF</td>
<td>WMO 19-02</td>
<td>$963</td>
</tr>
<tr>
<td>Glen Neuburger*</td>
<td>Tree Establishment/CP-19-004</td>
<td>Approval</td>
<td>WMO 2016 EPA</td>
<td>WMO 19-05</td>
<td>$7,228</td>
</tr>
<tr>
<td>Dolan Seurer</td>
<td>Conservation Cover/CP-15-050</td>
<td>Switch Funding</td>
<td>WMO 2018 LGF</td>
<td>WMO 17-39</td>
<td>$4,730</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$15,269</td>
</tr>
<tr>
<td><strong>Amendments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glen Neuburger</td>
<td>Native Grass/CP-18-110</td>
<td>Amount change</td>
<td>WMO 2016 EPA</td>
<td>WMO 18-38</td>
<td>-$240</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-$4,490</td>
</tr>
<tr>
<td>Neil Flynn</td>
<td>Conservation Cover/CP-18-027</td>
<td>Amount change</td>
<td>WMO 2015 CWF Targeted</td>
<td>WMO 18-10</td>
<td>-$2,929.25</td>
</tr>
<tr>
<td>Dolan Seurer</td>
<td>Conservation Cover/CP-15-050</td>
<td>Funding source</td>
<td>WMO 2018 LGF (from 2015 CWF TWG)</td>
<td>WMO 17-39</td>
<td>$4,730</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WMO 2019 LGF</td>
<td></td>
<td>$15,269</td>
</tr>
<tr>
<td><strong>Screening Committee Recommendations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Payments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scott County Parks*</td>
<td>Grassed Waterway/CP-16-235</td>
<td>Final Pmt</td>
<td>SWMO 2016 EPA</td>
<td>WMO 17-30</td>
<td>$190.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SWCD 2015 CWF LMR/C15-8417-2</td>
<td>SWCD 17-16</td>
<td>$1,745.58</td>
</tr>
<tr>
<td>Vernon Wick</td>
<td>Cover Crop/CP-16-228</td>
<td>First Half Pmt</td>
<td>SWMO 2015 CWF Targeted/P15-0833</td>
<td>WMO 17-05</td>
<td>$4,000</td>
</tr>
<tr>
<td>Noah Levi*</td>
<td>Shoreline Protection/CP-17-112</td>
<td>Final Pmt</td>
<td>SWMO 2015 CWF Targeted/P15-0833</td>
<td>WMO 18-20</td>
<td>$30,270</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partial Pmt</td>
<td>SWMO 2016 EPA</td>
<td></td>
<td>$3,126.75</td>
</tr>
<tr>
<td>Susan Mealman*</td>
<td>Shoreline Protection/CP-16-347</td>
<td>Final Pmt</td>
<td>SWCD 2015 CWF PLSL/C15-0337</td>
<td>SWCD 17-25</td>
<td>$732.05</td>
</tr>
<tr>
<td>Jim Williams</td>
<td>Cover Crop/CP-18-155</td>
<td>Second Pmt</td>
<td>SWMO 2016 EPA</td>
<td>WMO 18-31</td>
<td>$1,474</td>
</tr>
<tr>
<td>William Feldman*</td>
<td>Well Decommission/CP-18-121</td>
<td>Final Pmt</td>
<td>BWSR 2018 SCS/P18-7950</td>
<td>SCS 18-08</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WMO 18-28</td>
<td>$500</td>
</tr>
<tr>
<td>Adam Simon*</td>
<td>Cover Crop/CP-18-068</td>
<td>Final Pmt</td>
<td>SWMO 2016 EPA Practice</td>
<td>WMO 18-29</td>
<td>$332</td>
</tr>
<tr>
<td>Scott County Parks*</td>
<td>Grade Stabilization/CP-17-064</td>
<td>Final Pmt</td>
<td>SWCD 2015 CWF LMR/C15-8417-2</td>
<td>SWCD 17-15</td>
<td>$14,202.90</td>
</tr>
<tr>
<td><strong>Ronald Schmitz</strong>*</td>
<td>Well Decommission/CP-18-088</td>
<td>Final Pmt</td>
<td>SWCD 2017 CWF LMR/C17-1253</td>
<td>SWMO 2016 EPA Practices</td>
<td>WMO 17-29</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------</td>
<td>-----------</td>
<td>---------------------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Brian Entinger</strong></td>
<td>Cover Crop/CP-17-238</td>
<td>First Half Pmt</td>
<td>BWSR 2017 SCS/P17-2042</td>
<td>SWMO 2018 LGF</td>
<td>SCS 18-03</td>
</tr>
<tr>
<td><strong>Timothy O’Loughlin</strong>*</td>
<td>Water &amp; Sediment/CP-14-017</td>
<td>Final Pmt</td>
<td>SWMO 2016 EPA</td>
<td>SWMO 2015 LGF</td>
<td>WMO 15-24</td>
</tr>
<tr>
<td><strong>Joe Hentges</strong>*</td>
<td>Cover Crops/CP-18-165</td>
<td>Final Pmt</td>
<td>SWMO 2016 EPA</td>
<td>WMO 18-41</td>
<td>$800</td>
</tr>
<tr>
<td><strong>Hentges Ag</strong>*</td>
<td>Cover Crops/CP-18-176</td>
<td>Final Pmt</td>
<td>SWMO 2016 EPA</td>
<td>WMO 18-46</td>
<td>$1,600</td>
</tr>
<tr>
<td><strong>Dan Totushek</strong>*</td>
<td>Cover Crops/CP-18-177</td>
<td>Final Pmt</td>
<td>SWMO 2016 EPA</td>
<td>WMO 18-42</td>
<td>$420</td>
</tr>
</tbody>
</table>

**Cancellations**

None

*Fact Sheet enclosed*
Dan and Carmen Brinkman Lined Waterway

Cooperator & Location
Applicant(s): Carmen Brinkman
Address: 8996 Goshen Trl,
Location: Township: 114N Range: 24W Sect: 34
City/Town: St. Lawrence Twp
Watershed: 33089  Project ID: CP-18-171

Project Details

Practice
Lined Waterway or Outlet
Quantity/Units: 66.0 Lin Ft  Projected Installation: Summer 2019
Resource Protected
Minnesota River

Project Description
A Lined Waterway is a shaped or graded channel that is established with suitable material to convey runoff at non-erosive velocities to a stable outlet. The material in this case is MN DOT Class II Rock Rip-Rap. This Lined Waterway is needed to treat head cutting of a ravine. Prior to the Lined Waterway a 175’ Grasped Waterway will be installed to convey water to the Lined Waterway.

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (tons/yr)</td>
<td>13.4</td>
<td>0.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Sediment Load (tons/yr)</td>
<td>13.4</td>
<td>0.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>13.4</td>
<td>0.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Runoff Reduction (acre ft)</td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Federal</th>
<th>State</th>
<th>SWCD</th>
<th>SWMO</th>
<th>Cooperator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation:</td>
<td>$24,560.00</td>
<td>$0.00</td>
<td>$10,000.00</td>
<td>$10,876.00</td>
<td>$3,684.00</td>
</tr>
<tr>
<td>Incentives:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td>$24,560.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding Sources</th>
<th>Grant Sources</th>
<th>Unit Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>EPA-319</td>
<td>Sediment ($/Ton)</td>
</tr>
<tr>
<td>State</td>
<td>CWF</td>
<td>Phos ($/Pound)</td>
</tr>
<tr>
<td>SWCD</td>
<td>DRAP</td>
<td>Runoff ($/Ac Ft)</td>
</tr>
<tr>
<td>SWMO</td>
<td></td>
<td>Overall</td>
</tr>
<tr>
<td>Cooperator</td>
<td>Approved</td>
<td></td>
</tr>
</tbody>
</table>

*Over term of cost share contract
Glen Neuburger Tree/Shrub Establishment

Cooperator & Location

Applicant(s): Glen Neuburger
Address: 2247 270 ST E,
Location: Township: 113N Range: 22W Sect: 33
City/Town: Cedar Lake Twp
Watershed: 33017 Project ID: CP-19-004

Project Details

Practice

Tree/Shrub Establishment
Quantity/Units: 2.2 Acres Projected Installation: Spring 2019

Resource Protected

DNR Public Watercourse

Project Description
A 2.2 acre tree planting consisting of Deciduous tree, conifers and shrubs. Weed barrier mats will be used to suppress weed competition and rigid net shelters will be used on deciduous trees due to deer browse potential.

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (tons/yr)</td>
<td>5.1</td>
<td>0.0</td>
<td>5.1</td>
</tr>
<tr>
<td>Sediment Load (tons/yr)</td>
<td>1.2</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>2.2</td>
<td>0.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Runoff Reduction (acre ft)</td>
<td>1.8</td>
<td>0.8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>$4,040.00</th>
<th>$4,400.00</th>
<th>$8,440.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>SWCD</td>
<td></td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>SWMO</td>
<td>$7,228.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperator</td>
<td>$1,212.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant Sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPA-319</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CWF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRAP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved</td>
<td>1/15/2019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unit Costs*

- Sediment ($/Ton): SWCD $0, SWMO $602
- Phos ($/Pound): SWCD $0, SWMO $329
- Runoff ($/Ac ft): SWCD $0 N/A, SWMO $723

*Over term of cost share contract
Scott County Parks Dept Grassed Waterway

Cooperator & Location
Applicant(s): Scott County Parks Dept
Address: 200 Fourth Ave W., Shakopee
Location: Township: 113N  Range: 25W  Sect: 17
City/Town: Blakeley Twp
Watershed: 33087  Project ID: CP-16-235

Project Details
Practice
Grassed Waterway
Quantity: 205.0 Lin Ft  Certified Complete: 6/29/2018
Resource Protected
MN River
Project Description
Scott County Parks requested a conservation planning assessment which resulted in repairing a gully in this field. A waterway was constructed with a diversion at the top to allow vegetation to properly establish. During construction, it was determined that an additional 80 feet would be need to sufficiently capture the runoff. The final length is 205 feet of waterway.

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (tons/yr)</td>
<td>5.3</td>
<td>0.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Sediment Load (tons/yr)</td>
<td>2.7</td>
<td>0.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>2.7</td>
<td>0.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Runoff Reduction (acre ft)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Grant Source</th>
<th>Unit Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation:</td>
<td>Federal</td>
<td>EPA-319</td>
<td>Sediment</td>
</tr>
<tr>
<td></td>
<td>$2,151.20</td>
<td>☑️</td>
<td>($/Ton)</td>
</tr>
<tr>
<td>Incentives:</td>
<td>$0.00</td>
<td>CWF</td>
<td>Phos ($/Pound)</td>
</tr>
<tr>
<td>Total:</td>
<td>$2,151.20</td>
<td>DRAP</td>
<td>Runoff ($/Ac Ft)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SWCD $65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SWMO $7</td>
</tr>
<tr>
<td>Targeted Project</td>
<td>Cooperator $215.12</td>
<td>Approval Date</td>
<td>Overall $80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8/15/2017</td>
<td>n/a</td>
</tr>
</tbody>
</table>

*Over term of Cost share contract
Cooperator & Location

Applicant(s): Noah Levi
Address: 5475 McMahon Ln.,
Location: Township: 113N Range: 22W Sect: 1
City/Town: Cedar Lake Twp
Watershed: 33127 Project ID: CP-17-112

Project Details

Practice
Shoreline Protection
Quantity: 370.0 Lin Ft
Certified Complete:

Resource Protected
McMahon Lake

Project Description
Eroding shoreline and undermining along the southern shore of McMahon Lake are causing bank failures and sloughs. Vertical, undermined banks of approximately 4 ft. were depositing bank material into the lake as well as causing large mature trees to uproot leaving non vegetated voids on the bank. A combination of 12” Coir Logs, Soil Bio-Lifts, Rip Rap and Native Seed was installed along with grading and shaping of the banks.

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (tons/yr)</td>
<td>23.9</td>
<td>0.0</td>
<td>23.9</td>
</tr>
<tr>
<td>Sediment Load (tons/yr)</td>
<td>23.9</td>
<td>0.0</td>
<td>23.9</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>20.3</td>
<td>0.0</td>
<td>20.3</td>
</tr>
<tr>
<td>Runoff Reduction (acre ft)</td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Grant Source</th>
<th>Unit Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $45,029.00</td>
<td>Federal</td>
<td>$0.00</td>
<td>Sediment ($/Tce): SWCD $0, SWMO $141</td>
</tr>
<tr>
<td>Incentives: $0.00</td>
<td>State</td>
<td></td>
<td>Phos ($/Pound): SWCD $0, SWMO $166</td>
</tr>
<tr>
<td>Total: $45,029.00</td>
<td>SWCD</td>
<td>$0.00</td>
<td>Runoff ($/Ac Ft): n/a</td>
</tr>
<tr>
<td>SWMO</td>
<td>$33,771.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperator</td>
<td>$11,257.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approval Date: 6/19/2018

*Over term of cost share contract
Susan and Jerry Mealman Shoreline Protection

Cooperator & Location

Applicant(s): Susan and Jerry Mealman
Address: 17326 Vergus Ave,  
Location: Township: 114N  Range: 22W  Sect: 9  
City/Town: Spring Lake Twp  
Watershed: 33129  Project ID: CP-16-237

Project Details

Practice
Shoreline Protection
Quantity: 133.0 Lin Ft  Certified Complete: 11/14/2018

Resource Protected
Spring Lake

Project Description
The Mealman's purchased Jerry's parents land and re-built the house. They also wanted to renovate the shoreline with native plants. Treatment used to stabilize and protect banks of streams or constructed channels, and shorelines of lakes, reservoirs, or estuaries. The purpose is to prevent the loss of land or damage to land uses, or facilities adjacent to the banks of streams or constructed channels, shoreline of lakes, reservoirs, or estuaries including the protection of known historical, archeological, and traditional cultural properties.

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Grant Source</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $1,464.10</td>
<td>Federal $0.00</td>
<td>EPA-319</td>
<td>12/30/2018</td>
</tr>
<tr>
<td>Incentives: $0.00</td>
<td>State $0.00</td>
<td>CWF</td>
<td></td>
</tr>
<tr>
<td>Total: $1,464.10</td>
<td>SWCD $732.05</td>
<td>DRAP</td>
<td></td>
</tr>
<tr>
<td>Targeted Project</td>
<td>PLSLWD $0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperator $732.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
William Feldman Well Decommissioning

Cooperator & Location

Applicant(s): William Feldman
Address: 20265 Vernon Ave, Prior Lake
Location: Township: 114N  Range: 21W  Sect: 21
City/Town: Credit River Twp
Watershed: 33126  Project ID: CP-18-121

Project Details

Practice

Well Decommissioning

Quantity: 1.0 Each  Certified Complete: 11/8/2018

Resource Protected

Groundwater

Project Description

Well decommissioning is the sealing and permanent closure of an inactive, abandoned, or inoperable water well. This practice protects groundwater resources by preventing contaminated water or other potentially harmful fluids from flowing or being dumped into the well.

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Grant Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation:</td>
<td>Federal: $0.00</td>
<td>EPA-319</td>
</tr>
<tr>
<td>Incentives:</td>
<td>State: $500.00</td>
<td>CWF</td>
</tr>
<tr>
<td>Total: $1,855.00</td>
<td>SWCD: $0.00</td>
<td>DRAP</td>
</tr>
<tr>
<td></td>
<td>SWMO: $500.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperator: $855.00</td>
<td></td>
</tr>
</tbody>
</table>

Approval Date

8/21/2018
Adam Simon Cover Crop

Cooperator & Location
Applicant(s): Adam Simon
Address: 946 Heritage Dr. SW
City/Town: Cedar Lake Twp
Township: 113N
Range: 22W
Section: 28
Project ID: CP-18-068
Watershed: 33022
Approved: 9/11/2018

Project Details
Practice:
Cover Crop
Quantity: 16.6 Acres
Certified Complete: 11/8/2018
Resource Protected
Soils and Soil Health

Project Location and Description
Cover crops consist of grasses, legumes, forbs or other herbaceous plants seeded individually or in mixes either before or after harvest of the primary crop. The primary benefits of cover crops include reducing erosion and improving the soil's physical and biological properties. Healthy soil yields less runoff and improves nutrient and water utilization by crops.

Funding Amounts and Sources

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $0.00</td>
<td>Federal $0.00</td>
<td>EPA-319</td>
</tr>
<tr>
<td>Incentives: $332.00</td>
<td>State</td>
<td>CWF</td>
</tr>
<tr>
<td>Total: $332.00</td>
<td>SWCD $0.00</td>
<td>DRAP</td>
</tr>
<tr>
<td></td>
<td>SWMO $332.00</td>
<td>FLC</td>
</tr>
</tbody>
</table>

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (Tons/yr)</td>
<td>72.8</td>
<td>31.5</td>
<td>41.3</td>
</tr>
<tr>
<td>Sediment Load (Tons/yr)</td>
<td>11.0</td>
<td>4.4</td>
<td>6.6</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>18.6</td>
<td>9.2</td>
<td>9.4</td>
</tr>
<tr>
<td>Runoff Red. (Acre ft)</td>
<td>14.3</td>
<td>14.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Scott County Parks Dept Grade Stabilization Structure

Cooperator & Location

Applicant(s): Scott County Parks Dept
Address: 200 Fourth Ave W, Shakopee
Location: Township: 113N Range: 25W Sect: 8
City/Town: Blakeley Twp
Watershed: 33087 Project ID: CP-17-064

Project Details

Practice
Grade Stabilization Structure
Quantity: 1.0 Each Certified Complete: 6/29/2018

Resource Protected
MN River

Project Description
An ephemeral gully in a crop field in Blakeley Buffs regional park discharges to a ravine that itself is head cutting into the field. It is determined that a grassed waterway and grade stabilization control structure (GSS) were installed to treat the head cut and gully. The disturbed area was replanted into native prairie after construction was complete.

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (tons/yr)</td>
<td>21.3</td>
<td>0.0</td>
<td>21.3</td>
</tr>
<tr>
<td>Sediment Load (tons/yr)</td>
<td>10.6</td>
<td>0.0</td>
<td>10.6</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>10.6</td>
<td>0.0</td>
<td>10.6</td>
</tr>
<tr>
<td>Runoff Reduction (acre ft)</td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Grant Source</th>
<th>Unit Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $18,531.00</td>
<td>Federal $0.00</td>
<td>EPA-319 ✓</td>
<td>Sediment ($/Ton) SWCD $134</td>
</tr>
<tr>
<td>Incentives: $0.00</td>
<td>State SWCD $14,202.90</td>
<td>CWF ✓</td>
<td>Phos ($/Pound) SWMO $23</td>
</tr>
<tr>
<td>Total: $18,531.00</td>
<td>SWCD $2,475.00</td>
<td>DRAP □</td>
<td>Runoff ($/Ac.ft) Overall $175</td>
</tr>
<tr>
<td>Targeted Project</td>
<td>Cooperator $1,853.10</td>
<td>Approval Date 11/21/2017</td>
<td>*Over term of cost share contract</td>
</tr>
</tbody>
</table>

*Over term of cost share contract
Ronald Schmitz Well Decommissioning

Cooperator & Location

Applicant(s): Ronald Schmitz  
Address: 24011 Delaware Ave., Belle Plaine  
Location: Township: 113N  Range: 24W  Sect: 14  
City/Town: Belle Plaine Twp  
Watershed: 33018  Project ID: CP-18-088

Project Details

Practice

Well Decommissioning

Quantity: 1.0 Each  Certified Complete: 11/28/2018

Resource Protected

Groundwater

Project Description

Well decommissioning is the sealing and permanent closure of an inactive, abandoned, or inoperable water well. This practice protects groundwater resources by preventing contaminated water or other potentially harmful fluids from flowing or being dumped into the well.

When Hartmann came out to put together a quote, the wire they use to measure the well depth got stuck in the well pipe. Hartmann removed the pipe at the time of quote so they could retrieve their wire.

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Grant Source</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $758.50</td>
<td>Federal: $0.00</td>
<td>EPA-319</td>
<td>6/19/2018</td>
</tr>
<tr>
<td>Incentives: $0.00</td>
<td>State: $260.06</td>
<td>CWF</td>
<td></td>
</tr>
<tr>
<td>Total: $758.50</td>
<td>SWCD: $0.00</td>
<td>DRAP</td>
<td></td>
</tr>
<tr>
<td>SWMO: $260.07</td>
<td>Cooperator: $238.37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tim O'Loughlin Water and Sediment Control Basin

Cooperator & Location
Applicant(s): Tim O'Loughlin
Address: 12635 Shannon Drive, Shakopee
Location: Township: 113N  Range: 22W  Sect: 16
City/Town: Cedar Lake Twp
Watershed: 33022  Project ID: CP-14-017

Project Details
Practice
Water and Sediment Control Basin
Quantity: 4.0 Each  Certified Complete: 12/28/2016

Resource Protected
Porter Creek

Project Description
A series of 4 Water and Sediment Control basins were constructed replacing an existing waterway which had eroded over the course of several years. The existing waterway failed due to saturated conditions over extended periods of the growing season. The newly constructed WASCB's will provide surface intakes and impoundment of water removing overland flows while stabilizing the soils. Also, a Waterway was constructed along the north end of the concentrated flow area below the WASCB to provide additional protection from the remaining drainage areas.

Environmental Benefits:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (tons/yr)</td>
<td>176.7</td>
<td>0.0</td>
<td>176.7</td>
</tr>
<tr>
<td>Sediment Load (tons/yr)</td>
<td>47.0</td>
<td>0.0</td>
<td>47.0</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>47.0</td>
<td>0.0</td>
<td>47.0</td>
</tr>
<tr>
<td>Runoff Reduction (acre ft)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Cost Analysis

<table>
<thead>
<tr>
<th>Project Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation:</td>
<td>$58,195.00</td>
</tr>
<tr>
<td>Incentives:</td>
<td>$0.00</td>
</tr>
<tr>
<td>Total:</td>
<td>$58,195.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding by Source</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$17,054.00</td>
</tr>
<tr>
<td>State</td>
<td>$4,000.00</td>
</tr>
<tr>
<td>SWCD</td>
<td>$0.00</td>
</tr>
<tr>
<td>SWMO</td>
<td>$16,930.00</td>
</tr>
<tr>
<td>Cooperator</td>
<td>$20,211.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grant Source</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA-319</td>
<td></td>
</tr>
<tr>
<td>CWF</td>
<td></td>
</tr>
<tr>
<td>DRAP</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit Costs*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sediment ($/Ton)</td>
<td></td>
</tr>
<tr>
<td>Phos ($/Pound)</td>
<td></td>
</tr>
<tr>
<td>Runoff ($/Ac.Ft)</td>
<td></td>
</tr>
<tr>
<td>SWCD</td>
<td>n/a</td>
</tr>
<tr>
<td>SWMO</td>
<td>$36</td>
</tr>
<tr>
<td>Overall</td>
<td>$124</td>
</tr>
</tbody>
</table>

*Over term of cost share contract
Cooperator & Location

Applicant(s): Joe Hentges
Address: 19990 Vergus Ave, Jordan
City/Town: Sand Creek Twp
Township: 114N
Range: 23W
Section: 27
Project ID: CP-18-165
Watershed: 33137
Approved: 10/16/2018

Project Details

Practice:
Cover Crop
Quantity: 40.0 Acres
Resource Protected
Tributary to Sand Creek
Certified Complete: 12/10/2018

Project Location and Description

Joe has 40 acres of wheat ground where he saw an opportunity to plant a cover crop after harvest. Cover crops consist of grasses, legumes, forbs or other herbaceous plants seeded individually or in mixes either before or after harvest of the primary crop. The primary benefits of cover crops include reducing erosion and improving the soil's physical and biological properties. Healthy soil yields less runoff and improves nutrient and water utilization by crops. Joe's goals are to prevent erosion, suppress weeds, and fix nitrogen for next seasons corn crop.

Funding Amounts and Sources

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $0.00</td>
<td>Federal $0.00</td>
<td>EPA-319 ✓</td>
</tr>
<tr>
<td>Incentives: $800.00</td>
<td>State</td>
<td>CWF</td>
</tr>
<tr>
<td>Total: $800.00</td>
<td>SWCD $0.00</td>
<td>DRAP</td>
</tr>
<tr>
<td>Applicant:</td>
<td>SWMO $800.00</td>
<td>FLC</td>
</tr>
</tbody>
</table>

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (Tons/yr)</td>
<td>45.3</td>
<td>31.5</td>
<td>13.8</td>
</tr>
<tr>
<td>Sediment Load (Tons/yr)</td>
<td>13.3</td>
<td>9.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>24.7</td>
<td>18.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Runoff Red. (Acre ft)</td>
<td>24.7</td>
<td>18.5</td>
<td>6.2</td>
</tr>
</tbody>
</table>

The table above shows the reduction in various environmental parameters before and after the installation of the cover crop.
Gloria has 80 acres of wheat ground where she saw an opportunity to plant a cover crop after harvest. Cover crops consist of grasses, legumes, forbs or other herbaceous plants seeded individually or in mixes either before or after harvest of the primary crop. The primary benefits of cover crops include reducing erosion and improving the soil's physical and biological properties. Healthy soil yields less runoff and improves nutrient and water utilization by crops. Her goals are to prevent erosion, suppress weeds, and fix nitrogen for next seasons corn crop.
Cooperator & Location
Applicant(s): Dan Totushek
Address: 20493 Harlow Avenue, Jordan
City/Town: Sand Creek Twp
Township: 114N
Range: 23W
Section: 26
Project ID: CP-18-177
Watershed: 33133
Approved: 10/16/2018

Project Details
Practice:
Cover Crop
Quantity: 21.0 Acres
Certified Complete: 12/11/2018
Resource Protected
Tributary to Porter Creek

Project Location and Description
Dan saw an opportunity to plant a cover crop after wheat harvest on his farm in Sand Creek Township. Cover crops consist of grasses, legumes, forbs or other herbaceous plants seeded individually or in mixes either before or after harvest of the primary crop. The primary benefits of cover crops include reducing erosion and improving the soil's physical and biological properties. Healthy soil yields less runoff and improves nutrient and water utilization by crops.

Funding Amounts and Sources

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>Funding by Source</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: $0.00</td>
<td>Federal: $0.00</td>
<td>EPA-319</td>
</tr>
<tr>
<td>Incentives: $420.00</td>
<td>State:</td>
<td>CWF</td>
</tr>
<tr>
<td>Total: $420.00</td>
<td>SWCD: $0.00</td>
<td>DRAP</td>
</tr>
<tr>
<td>Applicant:</td>
<td>SWMO: $420.00</td>
<td>FLC</td>
</tr>
</tbody>
</table>

Environmental Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion (Tons/yr)</td>
<td>23.1</td>
<td>16.2</td>
<td>6.9</td>
</tr>
<tr>
<td>Sediment Load (Tons/yr)</td>
<td>6.9</td>
<td>4.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Phosphorus Load (lbs/yr)</td>
<td>13.8</td>
<td>10.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Runoff Red. (Acre ft)</td>
<td></td>
<td></td>
<td>0.0</td>
</tr>
</tbody>
</table>
Old Business
New Business
2019

MARCH

JUNE

SEPTEMBER

DECEMBER

FEBRUARY

MAY

AUGUST

NOVEMBER

JANUARY

APRIL

JULY

OCTOBER

2019 WWO Meetings

Christmas