



### Executive summary

### Grant project summary

Project title: Cottonwood Streambank Inventory and Prioritization Project

Organization (Grantee): Redwood-Cottonwood Rivers Control Area

Project start date: 10/1/2012 Project end date: 8/31/2016 Report submittal date: 9/30/2016

Grantee contact name: Kerry Netzke Title: Executive Director

Address: 1424 East College Drive, Suite 300

City: Marshall State: MN Zip: 56258

Phone number: 507-532-1325 Fax: 800-915-3440 Email: kerry.netzke@rcrca.com

Basin (Red, Minnesota, St. Croix, etc.) /Watershed & 8 digit HUC:: Cottonwood (07020008) Counties: Lyon, Redwood, Brown, and Cottonwood

**Project type** (check one):

- Clean Water Partnership
- Total Maximum Daily Load (TMDL)/Watershed Restoration or Protection Strategy (WRAPS) Development
- 319 Implementation
- 319 Demonstration, Education, Research
- TMDL/WRAPS Implementation

### Grant funding

Final grant amount: \$297,000.00 Final total project costs: \$684,544.21

Matching funds: Final cash: \$387,544.21 Final in-kind: \_\_\_\_\_ Final Loan: \_\_\_\_\_

MPCA project manager: Mark Hanson

### For TMDL/WRAPS development or TMDL/WRAPS implementation projects only

Impaired reach name(s): \_\_\_\_\_

AUID or DNR Lake ID(s): \_\_\_\_\_

Listed pollutant(s): \_\_\_\_\_

303(d) List scheduled start date: \_\_\_\_\_ Scheduled completion date: \_\_\_\_\_

*AUID = Assessment Unit ID*  
*DNR = Minnesota Department of Natural Resources*

### Executive summary of project (300 words or less)

This summary will help us prepare the Watershed Achievements Report to the Environmental Protection Agency. (Include any specific project history, purpose, and timeline.)

#### Problem (one paragraph)

Annual total suspended solids (TSS) loading from the Cottonwood River in 1997 was estimated at over 330,000 tons, or 252 tons per square mile. Total phosphorus (TP) was estimated at 505 tons. Throughout the study period, flow weighted mean concentrations of TSS and nutrients on the main stem and most

tributaries exceeded expected values for minimally impacted ecoregion streams. By 2008, annual FLUX calculations from the Cottonwood River sampling site at New Ulm showed a total phosphorus delivery of 143.38 tons annually to the Minnesota River. This is equal to .109 tons per square mile loss of phosphorus included with 83.52 tons per square mile loss of total suspended *solids* ([www.rcrca.com](http://www.rcrca.com)). This is directly related to the turbidity impairment and contributes to the Minnesota River phosphorus loading. (See <http://www.pca.state.mn.us/water/tmdl.html>)

#### **Waterbody improved (one paragraph)**

The Cottonwood River Watershed encompasses 1,312.23 square miles and is one of thirteen major watersheds in the Minnesota River Basin. The River originates on the Coteau des Prairies, flowing eastward approximately 152 miles to the Minnesota River with a drop in elevation of about 750 feet. This topography results in periodic spring and summer flooding in the central portion of the watershed. At times, damages are severe. A related implication is rapid transport of sediment and attached nutrients from inadequately treated cropland during spring snowmelt and spring and summer rainfall events. Rapid transport of sediment and attached nutrients stems from cropland during spring snowmelt and spring and summer rainfall events. The purpose of this project is to facilitate watershed land-use changes within these watersheds that will lead to phosphorus reductions necessary to meet goals set forth in the Lower Minnesota River Dissolved Oxygen TMDL. Implementing groundwater infiltration and phosphorus reducing conservation practices through new funded best management practices will help achieve reductions outlined in the TMDL plan and the respective rivers' implementation plans. The impairment to the Minnesota River has not been delisted.

#### **Project highlights (one paragraph)**

As of August 31, 2016, cumulative project expenditures were \$684,544.21, consisting of \$297,000 of grant cash and \$387,544.21 of local match. The \$189,700 available for cost-share assistance resulted in the completion of: 5 grade stabilizations, 34 water and sediment control basins (WSCBs), 9,965 feet of grassed waterway, and 1,629.2 feet of streambank stabilization with estimated pollution reductions of: 1,050.63 lbs/yr of total phosphorus, 1,055.95 tons/yr of soil saved, and 1,063.38 tons/yr of sediment captured. The cost-share from this grant assisted in \$757,951.88 of BMPs installed in the watershed.

A prioritization ranking form was developed using the best available information for projects reducing the transport of sediment and nutrients. During this grant, the Terrain Analysis for the entire Cottonwood River watershed was completed by Houston Engineering Inc. As future projects are considered for implementation and cost-share, the Terrain Analysis data will be coupled with the ACPF tool to target these projects on a field-scale level.

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#### **Partnerships** (Name all partners and indicate relationship to project)

*Brown SWCD & NRCS -- Cottonwood SWCD & NRCS -- Lyon SWCD & NRCS -- Redwood SWCD & NRCS*

These partners provided project assistance by referring cooperators to RCRCA as well as processing additional cost-share funding at the federal, state and local levels.

*Area II Minnesota River Basin Projects, Inc.*

This partnering joint powers organization provided engineering of the grade stabilization and WSCBs projects that exceeded the ability of RCRCA staff.

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#### **Results (one paragraph)**

In 2014, verified FLUX loading from Cottonwood River sampling site at New Ulm measured total phosphorus delivery of 155.5 tons annually to the Minnesota River. This delivery is equal to 0.119 tons/sq. mile loss of phosphorus. Although loadings can vary greatly from year to year based on precipitation, the decreasing trend is promising. FLUX loadings from 2013, the lowest of recent years, were 60.8 tons annually (.05 tons/sq. mile) to the Minnesota River. The impairment to the Lower Minnesota River has not been delisted, although progress is being made by all upstream partners. New Soil Loss Ordinances have been adopted in addition to the 2015 Buffer Law that will establish buffers along watercourses. Both of these endeavors will reduce the amount of sediment, and attached phosphorus, from reaching the State's watercourses.

## Work Plan Review

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From the original Work Plan, the following changes had been made over the course of the grant period:

- Contractor Contact was changed from Douglas Goodrich to Kerry Netzke upon Goodrich's resignation in December 2013,
- Contractor Address was changed resulting from a move of the RCRCA office from Redwood Falls to Marshall,
- Change Order #1 was executed February 10, 2014 to edit Work Plan language to include additional BMPs that slow hydrologic processes to reduce TSS deliver to the river, and
- Change Order #2 was executed April 5, 2016 to move excess funds from Obj. 1 BMP Technical and Implementation and Obj. 2 Data Management and Analysis to Obj. 1B. BMP Cost-Share.

Objective Summary:

### ***Objective 1: BMP Technical Assistance and Implementation***

#### ***Task A: Promote BMP cost share availability and identify BMP projects.***

- *Sub-task 1: GIS and FSA air photos were used to identify erosion prone areas.*
- *Sub-task 2: Priority area BMP ranking form was used, along with RUSLE 2 calculations and the MN Phosphorus Index to evaluate each site.*
- *Sub-task 3: Based on survey information, a cost estimate was developed based upon the best conservation practice for that site. Landowner/cooperator signature for the cost-share contract was obtained.*
- *Sub-task 4: Landowner/cooperator obtained bids and scheduled BMP installation*
- *Sub-task 5: Pre-construction meetings with RCRCA, SWCD/NRCS, landowner/cooperator and contractor were held. Gopher State One Call (GSOC) confirmation was required prior to authorizing construction.*
- *Sub-task 6: Construction progress was monitored, project verified as completed, and as-built drawings were obtained prior to Board approval for cost-share payment.*
- *Sub-task 7: Outcomes were entered into eLINK upon project completion.*
- *Sub-task 8: Projects were photo documented; some projects used for web page promotion.*

All subtasks were successfully completed for each cost-share project installed. The majority of the completed projects included other cost-share funding from a FY2013 Clean Water Fund (CWF) appropriate awarded to RCRCA. This grant was used to pay 25% of the project in addition to 50% provided by the CWF grant, and 25% by the landowner/cooperator. Under this formula, this grant may claim 1/3 of the associated pollution reductions. No problems were encountered with this task.

#### ***Task B: BMP cost share prioritization and project implementation.***

- *Cost-share contracts for prioritized and ranked projects were facilitated to not exceed 75% 319 cost-share/or combined (state and federal) funding. Completed BMPS include: water and sediment control basins, grassed waterway, grade stabilization structures, and streambank stabilization/protection.*

Cost-share assistance resulted in the completion of: 34 water and sediment control basins (WSCBs), 9,965 feet of grassed waterway, 5 grade stabilizations, and 1,629.2 feet of streambank stabilization. The cost-share from this grant assisted in \$757,951.88 of BMPs installed in the watershed, or 25% of the total cost. No problems were encountered with this task.

#### ***Task C: Promote and Implement MPCA low interest loan program***

- *Sub-task 1: MPCA low interest loans through County Environmental and Auditor offices were promoted.*
- *Sub-task 2: Promote and work with County ordinances to require inspection and septic up-grades when a construction permit is required or change in ownership of the property.*

\$111,875.90 of local match from low-interest septic loans was applied to this grant. The number of new and upgraded septic systems installed is available from MPCA. RCRCA continues to semi-annually report on the progress of the low-interest septic loans for Cottonwood, Murray and Redwood Counties until the loans expire June 30, 2017. No problems were encountered with this task.

## **Objective 2) Priority Project Inventory Development and Analysis**

### **Task A: Geospatial Analysis GIS/ Ground Truthing Analysis GPS/ Develop Site Ranking SOP**

- *Sub-task 1: GIS was used to analyze geo-referenced historical photos for streambank recession rates.*
- *Sub-task 2: Sites were ground-truthed using GPS, measurement, and other on/near river reconnaissance.*
- *Sub-task 3: A site ranking SOP was developed for the best use of cost-share funds using criterion of calculated TSS reduction potential, likelihood of further movement, and property protection.*

All subtasks were successfully completed. The developed ranking form and guidelines for its use are attached to this report. This information will be coupled with recently completed Terrain Analysis data to further target and prioritize BMPs. No problems were encountered with this task.

## **Objective 3) Grant Administration and Facilitation**

### **Task A: Project management; maintain grant and loan requirements, reporting and payments**

- *Sub-task 1: Management of the project ensured adherence to the Work Plan.*
- *Sub-task 2: All grant agreement requirements were met.*
- *Sub-task 3: Semi-annual reports, quarterly payment requests, and the final report were submitted in timely fashion and in accordance to the grant agreement.*

All subtasks were successfully completed. A change to the Contractor contact and address was made in December 2013 upon the resignation of the initial contact person and move of the RCRCA office from Redwood Falls to Marshall. Two change orders were executed to edit the work plan and make best use of the available grant funds. No problems were encountered with this task and all grant funds were successfully expended.

## **Results**

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### **Measurements:**

The Evaluation Plan outlined in the Work Plan includes:

#### *1 – Continued water quality monitoring.*

RCRCA continues to contract with MPCA to conduct Watershed Pollutant Load Monitoring Network (WPLMN) sampling for 3 sites within the Cottonwood River watershed. This contract covers 2017 through 2018 and is expected to be extended at least two years beyond 2018. Additionally, RCRCA will soon be contracting with MPCA for Storm Water Assessment Grant (SWAG) monitoring of 16 stream/river sites and 13 lakes within the Cottonwood River watershed beginning March 2017. This is the start of the Watershed Restoration and Protection Strategies (WRAPS) project for the Cottonwood River.

#### *2 – BMP Tracking System and eLINK reporting of completed projects*

Phosphorus reductions reaching the Minnesota River attributable to this project was estimated to be 3.052 tons/year (6,104.11 lbs/year) as identified in the work plan. This estimated reduction included the upgrade of noncompliant septic systems and reductions linked to the BMPs installed.

With other cost-share funding for these BMPs, careful attention was given to properly credit a proportionate amount of the pollutant reductions to the cost-share source. All projects have been entered in eLINK for their respective grant funding sources.



The following table illustrates the proposed versus actual BMP results:

| BMP  | Number          |               | Cost-Share      |               | Sediment Reduction* |                         | Phosphorus Reduction** |                        |
|--|-----------------|---------------|-----------------|---------------|---------------------|-------------------------|------------------------|------------------------|
|  | <i>Proposed</i> | <i>Actual</i> | <i>Proposed</i> | <i>Actual</i> | <i>Proposed</i>     | <i>Actual</i>           | <i>Proposed</i>        | <i>Actual</i>          |
| Grade Stabilization                              | 4               | 5             | \$40,000        | \$24,211.93   | 1,742.40 tons/yr    | 69.65 tons/yr           | 2,003.80 lbs/yr        | 63.55 lbs/yr           |
| Grassed Waterway                                 | 3,000'          | 9,965'        | \$18,000        | \$11,658.87   | 2,788.29 tons/yr    | 40.53 tons/yr           | 3,167.96 lbs/yr        | 29.04 lbs/yr           |
| WSCB   | 4               | 34            | \$22,000        | \$53,337.16   | 38.17 tons/yr       | 151.17 tons/yr          | 10.85 lbs/yr           | 156.01 lbs/yr          |
| Streambank Stabilization                         | 1,000'          | 1,629.2'      | \$80,000        | \$100,492.04  | 248.69 tons/yr      | 802.03 tons/yr          | 305.52 lbs/yr          | 802.03 lbs/yr          |
| <b>SUBTOTAL</b>                                  |                 |               | \$160,000       | \$187,900     | 4,817.55 tons/yr    | <b>1,063.38 tons/yr</b> | 5,488.13 lbs/yr        | <b>1,050.63 lbs/yr</b> |
| Reductions attributed to CWF grant               |                 |               |                 |               |                     | <b>1,778.44 tons/yr</b> |                        | <b>1,750.28 lbs/yr</b> |
| Reductions attributed to septic loans (bedrooms) | 45              | 129           |                 |               |                     |                         | 615.98 lbs/yr          | <b>1,765.69 lbs/yr</b> |
| <b>TOTAL</b>                                     |                 |               | \$160,000       | \$187,900     | 4,817.55 tons/yr    | <b>1,884.82 tons/yr</b> | 6,104.11 lbs/yr        | <b>4,566.60 lbs/yr</b> |

*NOTE: Proposed columns stem from Tables 2 and 3 from the Work Plan (pgs. 9-10).*

*\*Sediment reduction calculations were strictly reviewed by CWF staff. Formulas to be used for CWF projects resulted in less sediment reduction (and resulting phosphorus reduction) than initially estimated for this grant.*

*\*\* Phosphorus reduction is directly linked to the sediment reduction. Some literature assumes 1.0 lb of Phosphorus per 1.0 lb of Sediment. Other literature uses 1.15 lbs of P per 1.0 lb of Sediment. Phosphorus calculations were computed by more than one professional and the computations did not use a consistent Phosphorus factor.*

As you compare the proposed and actual columns above, several items become apparent:

1 – Landowner/cooperator participation was highest in the WSCB and Streambank Stabilization BMPs. Cost-share amounts were in higher demand for these types of BMPs.

2 – The proposed length of Grassed Waterways installed were nearly 3 times the proposed length, however there were only 3 projects. This type of BMP is generally less preferred over WSCB due to field chemical applications. Although these results show us that where the BMP is effective, the effective BMP length is much greater than those projects designed in previous years.

3 – The installation of WSCBs far exceeded initial estimates.

**Products:** (as attached to this report)

1 - CRRP Cost Share Contract Ranking Form

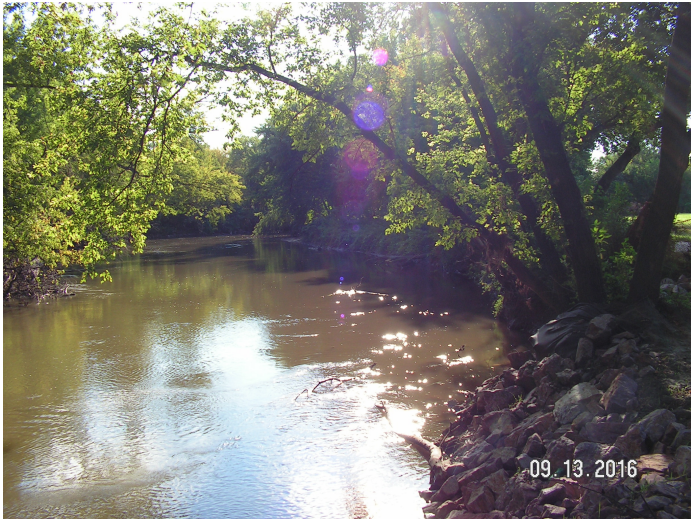
2 - Ranking Form Guidelines document

3 – BMP Tracking Sheet



**Photos:**

Digital photos of the following grade stabilization, grassed waterway, WSCB and streambank stabilization projects completed by this grant are included with the submission of this report.



City of Springfield – Streambank Stabilization (2016)



Anderson – Grade Stabilization (2015)



Weedman -- Grassed Waterway (2015)







Ludeman --Water & Sediment Control Basin, WSCB (2015)

**Public Outreach and Education:**

Public outreach and education was not an identified task in the Work Plan.

**Long-term results:**

The estimated pollutant reductions attributed to the BMP projects completed by this grant have a minimum estimated life of 10 years, however the majority of the streambank stabilizations, WSCBs and grade stabilizations have longer life expectancies of at least 25 years. With proper operation and maintenance activities, the life expectancies may even be longer.

By incorporating BMPs that reduce or capture concentrated flow, additional damages downstream may be reduced or eliminated. Capturing the rain where it falls has been a key implementation strategy for projects located in the higher elevations of the Buffalo Ridge. Incorporating stormwater retention and projects that safely convey water to the receiving stream have proven to reduce the erosion and pollutants carried with the stormwaters.

Using the information generated by the grant project, and coupling that knowledge with Terrain Analysis data, higher level targeting and prioritization of problem areas can be accomplished in the years to come. The measurability of this success may be accomplished through the continued monitoring of the water quality as it begins in 2017 with the Storm Water Assessment Grant (SWAG) and the Watershed Restoration and Protection Strategies (WRAPS) project for the Cottonwood River.

**Section III – Final Expenditures**

Project expenditures as of August 31, 2016, are attached as a separate spreadsheet.

# CRRP Cost Share Contract Ranking Form

Name: \_\_\_\_\_ Practice: \_\_\_\_\_  
 Address: \_\_\_\_\_ County: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Township Name: \_\_\_\_\_  
 Phone: (\_\_\_\_) \_\_\_\_\_ Twp: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_

1. Priority Management Area.....25 pt \_\_\_\_\_  
 (Cottonwood River Main Stem is the Priority Management Area)  
 Or General Cottonwood River Restoration Project Area .....15 pt \_\_\_\_\_
2. Direct Surface Water Pollution Source.....25 pt \_\_\_\_\_  
 Or Indirect Surface Water Pollution Source.....15 pt \_\_\_\_\_
3. Off season construction (willing to destroy crops to put in practice).....20 pt \_\_\_\_\_  
 Or construction will be finished by the 18 month start date.....10 pt \_\_\_\_\_
4. BMP's primary function is to reduce sediment and nutrient transport .....15 pt \_\_\_\_\_  
 Reduces sediment transport only.....10 pt \_\_\_\_\_  
 Reduces nutrient transport only .....5 pt \_\_\_\_\_
5. It is a TOP 10 cost shareable practice listed on page IV-16 of the 1993 Diagnostic study.5 pt \_\_\_\_\_  
 Copy of this list is included in information packet for landowner.
6. The project is addressing the most severe erosion problem first.....5 pt \_\_\_\_\_
7. Has other project sites and is willing to address them OR this is the only problem .....5 pt \_\_\_\_\_

**NOTES:**

**Total = \_\_\_\_\_**  
**Maximum Point Value = 100**  
**High Priority Ranking = 80**

Technician Completing Form: \_\_\_\_\_

# Ranking Form Guidelines

Each cost share application must have a copy of the ranking form attached to it. The ranking will be done by one of the CRRP technicians. The ranked cost share applications will be prioritized from the highest to lowest with the highest score being submitted for approval first.

A **High Priority** designation will be issued to any contract that has a point score of **80 or above**.

## Clarifications on each ranking criteria:

- 25 points** will be awarded to projects that are located in the priority management areas identified in the Cottonwood River Streambank Assessment Project Work Plan.

**15 points** will be awarded to projects that lie outside the priority areas in the general Cottonwood River Restoration Project Area. This pertains to tributaries that make up the watershed contributing to the Cottonwood River.
- 25 points** will be awarded, based on evidence of a surface water pollution source. Observed surface tile intakes and run-off into a stream, ditch, lake or wetland would qualify as direct sources, or **5 points** will be awarded to the BMP for being an indirect source of surface water pollution. The watershed of the practice must drain to the surface water of concern. The technician designing the BMP will make this determination.
- 20 points** will be awarded for off season construction to land owners willing to destroy their crop to put in the practice. These points are to reward persons that recognize that their problem needs immediate attention.

**10 points** will be awarded if the landowner agrees to complete the project within 18 months of approval of the cost share contract and does not want to destroy crops.
- 15 points** will be awarded if the BMP's primary function is to reduce soil and nutrient transport.

**10 points** will be awarded if the BMP's primary function is to reduce soil transport only.

**5 points** will be awarded if the BMP's primary function is to reduce nutrient transport. This is due to the fact that there is currently turbidity TMDL in development for the Cottonwood River Watershed, but no nutrient TMDLs are completed or in process.
- 5 points** will be awarded to the BMP for being listed on the TOP 10 list of cost share practices listed on the back of this document.
- 5 points** will be awarded if the person is addressing the worst erosion problem first.

**0 points** will be awarded if there is another problem that should take precedence.

This is intended to do two things:

  - 1 - Help prioritize more than one cost share application from the same person
  - 2 - If the technician observes an erosion problem that is of higher priority than the one applied for cost share on, then the lower point value will be awarded.
- 5 points** will be awarded if the person has other potential project sites and is willing to address them or this is the only problem. This is to reward conservation minded persons for making changes that benefit the river.

## Priority Best Management Practices

1. Wetland Restoration
2. Conservation Tillage
3. Nutrient Management
4. Riparian Buffer Strips
5. Streambank Protection (Rock Rip Rap or Bioengineered Protection)
6. Water/Sediment Control Basins
7. Small Multipurpose Dams/Impoundments
8. Terraces
9. Pasture Management/Livestock Exclusion
10. Open Tile Inlets replaced with Alternative Tile Inlets (ATI)

| GRANT: SW55326 "Cottonwood 6" |                             | \$ 189,700.00        |            |                           |       | BMP TRACKING SHEET |       |               |               |               |             |          |           |                 |            |       |        |            |           |           |  |  |  |
|-------------------------------|-----------------------------|----------------------|------------|---------------------------|-------|--------------------|-------|---------------|---------------|---------------|-------------|----------|-----------|-----------------|------------|-------|--------|------------|-----------|-----------|--|--|--|
| SPOKEN FOR NOT SPENT:         |                             | \$ 0.00              |            |                           |       |                    |       |               |               |               |             |          |           |                 |            |       |        |            |           |           |  |  |  |
| LEFT TO SPEND:                |                             | \$ 189,700.00        |            | (final pay - partial pay) |       |                    |       |               |               |               |             |          |           |                 |            |       |        |            |           |           |  |  |  |
| county                        | cont. num                   | coop. l. name        | city       | state                     | zip   | t. r. s.           | ws id | init date     | actual cost   | cost share    | 25% match   | part pay | part date | final pay       | final date | bmp # | instal | elink soil | elink sec | elink pho |  |  |  |
| Redwood                       | CP319-01-06 (FY13CWA-32-01) | Pfarr                | Glen       | MIN                       | 56152 | T109 R36 S30       | 29063 | 3/7/2013      | \$ 6,963.59   | \$ 1,749.39   | \$ 1,745.90 |          |           | \$ 1,749.39     | 12/7/2013  | 638   | 0.333  | 8.79       | 8.79      | 8.79      |  |  |  |
| Redwood                       | CP319-02-06 (FY13CWA-33-01) | Pfarr                | Glen       | MIN                       | 56152 | T109 R36 S30       | 29063 | 3/7/2013      | \$ 4,985.09   | \$ 1,251.27   | \$ 1,248.77 |          |           | \$ 1,251.27     | 12/7/2013  | 638   | 0.333  | 7.45       | 7.45      | 7.45      |  |  |  |
| Redwood                       | CP319-03-06 (FY13CWA-34-01) | Pfarr                | Glen       | MIN                       | 56152 | T109 R36 S30       | 29063 | 3/7/2013      | \$ 10,403.48  | \$ 2,606.07   | \$ 2,600.87 |          |           | \$ 2,606.07     | 12/7/2013  | 638   | 0.667  | 8.50       | 8.50      | 8.50      |  |  |  |
| Brown                         | CP319-04-06 (FY13CWA-35-01) | Burdorf/Johnson      | New Uim    | MIN                       | 56073 | T110 R30 S33       | 29001 | 6/6/2013      | \$ 29,800.00  | \$ 7,450.00   | \$ 7,450.00 |          |           | \$ 7,450.00     | 9/5/2013   | 580   | 0.333  | 27.17      | 27.17     | 27.17     |  |  |  |
| Brown                         | CP319-05-06 (FY13CWA-36-01) | Iremi                | Leon       | MIN                       | 56073 | T109 R33 S32       | 29001 | 5/2/2013      | \$ 12,500.00  | \$ 3,125.00   | \$ 3,125.00 |          |           | \$ 3,125.00     | 11/5/2013  | 410   | 1      | 4.24       | 4.24      | 4.24      |  |  |  |
| Brown                         | CP319-06-06 (FY13CWA-37-01) | Kral                 | Alan       | MIN                       | 56073 | T109 R30 S05       | 29001 | 11/7/2013     | \$ 2,318.75   | \$ 579.69     | \$ 579.69   |          |           | \$ 579.69       | 11/5/2013  | 410   | A      |            |           |           |  |  |  |
| Brown                         | CP319-07-06 (FY13CWA-38-01) | Kral                 | Alan       | MIN                       | 56073 | T109 R30 S05       | 29001 | 11/7/2013     | \$ 9,800.00   | \$ 2,450.00   | \$ 2,450.00 |          |           | \$ 2,450.00     | 10/3/2013  | 580   | 0.333  | 14.15      | 14.15     | 14.15     |  |  |  |
| Brown                         | CP319-08-06 (FY13CWA-39-01) | Stark TWP            | Sellier    | MIN                       | 56085 | T109 R30 S16       | 29006 | 6/20/2013     | \$ 13,000.00  | \$ 3,250.00   | \$ 3,250.00 |          |           | \$ 3,250.00     | 10/3/2013  | 580   | 0.333  | 84.91      | 84.91     | 84.91     |  |  |  |
| Redwood                       | CP319-09-06 (FY13CWA-40-01) | Brown County         | Gary       | MIN                       | 56087 | T109 R37 S24       | 29062 | 9/5/2013      | \$ 10,373.41  | \$ 2,593.35   | \$ 2,593.35 |          |           | \$ 2,593.35     | 12/7/2013  | 580   | 0.333  | 15.70      | 15.70     | 15.70     |  |  |  |
| Brown                         | CP319-10-06 (FY13CWA-41-01) | Leavenworth Township | Sleepy Eye | MIN                       | 56085 | T109 R33 S12       | 29010 | 9/5/2013      | \$ 9,355.00   | \$ 2,338.75   | \$ 2,338.75 |          |           | \$ 2,338.75     | 12/7/2013  | 580   | 0.333  | 13.60      | 13.60     | 13.60     |  |  |  |
| Brown                         | CP319-11-06 (FY13CWA-42-01) | Youngsberg           | Dennis     | MIN                       | 56087 | T108 R35 S29       | 29017 | 9/5/2013      | \$ 26,585.00  | \$ 6,646.25   | \$ 6,646.25 |          |           | \$ 6,646.25     | 11/2/2014  | 638   | 0.333  | 24.00      | 24.00     | 24.00     |  |  |  |
| Brown                         | CP319-12-06 (FY13CWA-43-01) | NW Farm MGMT         | Marshall   | MIN                       | 56258 | T110 R41 S07       | 29101 | 9/5/2013      | \$ 38,169.11  | \$ 7,713.77   | \$ 7,713.77 |          |           | \$ 7,713.77     | 10/2/2014  | 412   | 0.333  | 22.73      | 22.73     | 22.73     |  |  |  |
| Lyon                          | CP319-13-06 (FY13CWA-44-01) | Cauwels              | Bob        | MIN                       | 56178 | T110 R41 S26       | 29105 | 11/7/2013     | \$ 11,000.00  | \$ 2,750.00   | \$ 2,750.00 |          |           | \$ 2,750.00     | 11/5/2014  | 410   | 0.333  | 12.75      | 12.75     | 12.75     |  |  |  |
| Lyon                          | CP319-14-06 (FY13CWA-45-01) | Cauwels              | Bob        | MIN                       | 56178 | T110 R41 S26       | 29105 | 11/7/2013     | \$ 11,000.00  | \$ 2,750.00   | \$ 2,750.00 |          |           | \$ 2,750.00     | 11/5/2014  | 410   | 0.333  | 12.75      | 12.75     | 12.75     |  |  |  |
| Lyon                          | CP319-15-06 (FY13CWA-46-01) | Tholen               | Randy      | MIN                       | 56115 | T110 R42 S24       | 29096 | 10/3/2013     | \$ 10,167.00  | \$ 2,541.75   | \$ 2,541.75 |          |           | \$ 2,541.75     | 12/7/2013  | 638   | 0.333  | 6.07       | 6.07      | 6.07      |  |  |  |
| Lyon                          | CP319-16-06 (FY13CWA-47-01) | Meulebroeck          | Mark       | MIN                       | 56115 | T110 R41 S20       | 29102 | 10/3/2013     | \$ 13,859.24  | \$ 3,464.81   | \$ 3,464.81 |          |           | \$ 3,464.81     | 5/7/2015   | 638   | 0.333  | 17.71      | 17.71     | 17.71     |  |  |  |
| Redwood                       | CP319-17-06 (FY13CWA-48-01) | Pfarr                | Glen       | MIN                       | 56152 | T109 R37 S14       | 29062 | 4/3/2014      | \$ 19,431.56  | \$ 4,857.89   | \$ 4,857.89 |          |           | \$ 4,857.89     | 11/5/2015  | 580   | 0.333  | 212.50     | 212.50    | 212.50    |  |  |  |
| Redwood                       | CP319-18-06 (FY13CWA-49-01) | Bloemke              | Don        | MIN                       | 56085 | T109 R33 S20       | 29022 | 4/3/2014      | \$ 39,638.20  | \$ 9,909.55   | \$ 9,909.55 |          |           | \$ 9,909.55     | 6/4/2015   | 580   | 0.333  | 30.10      | 30.10     | 30.10     |  |  |  |
| Redwood                       | CP319-19-06 (FY13CWA-50-01) | Pfarr                | Vernon     | MIN                       | 56152 | T109 R36 S19       | 29063 | 5/1/2014      | \$ 16,880.00  | \$ 4,220.00   | \$ 4,220.00 |          |           | \$ 4,220.00     | 11/15/2014 | 580   | 0.333  | 3.01       | 3.01      | 3.01      |  |  |  |
| Redwood                       | CP319-20-06 (FY13CWA-51-01) | Dallentach           | Jim        | MIN                       | 56180 | T110 R38 S19       | 29049 | 5/1/2014      | \$ 59,871.30  | \$ 7,091.10   | \$ 7,091.10 |          |           | \$ 7,091.10     | 6/4/2015   | 410   | 0.333  | 2.09       | 2.09      | 2.09      |  |  |  |
| Redwood                       | CP319-21-06 (FY13CWA-52-01) | Nettewymitt Farms    | Jim        | MIN                       | 56175 | T110 R39 S17       | 29035 | 7/3/2014      | \$ 52,950.55  | \$ 1,627.00   | \$ 1,627.00 |          |           | \$ 1,627.00     | 11/4/2015  | 638   | 0.333  | 9.74       | 9.74      | 9.74      |  |  |  |
| Redwood                       | CP319-22-06 (FY13CWA-53-01) | Nettewymitt Farms    | Tracy      | MIN                       | 56175 | T110 R39 S17       | 29035 | 6/5/2014      | \$ 38,689.50  | \$ 2,426.95   | \$ 2,426.95 |          |           | \$ 2,426.95     | 10/1/2015  | 638   | 0.333  | 10.92      | 10.92     | 10.92     |  |  |  |
| Redwood                       | CP319-23-06 (FY13CWA-54-01) | Nettewymitt Farms    | Tracy      | MIN                       | 56175 | T110 R39 S17       | 29035 | 6/5/2014      | \$ 49,498.00  | \$ 1,216.35   | \$ 1,216.35 |          |           | \$ 1,216.35     | 11/5/2015  | 638   | 0.333  | 4.55       | 4.55      | 4.55      |  |  |  |
| Brown                         | CP319-24-06 (FY13CWA-55-01) | Sellier              | Dean       | MIN                       | 56185 | T109 R32 S17       | 29006 | 9/8/2014      | \$ 11,000.00  | \$ 2,750.00   | \$ 2,750.00 |          |           | \$ 2,750.00     | 11/5/2014  | 410   | 0.333  | 12.75      | 12.75     | 12.75     |  |  |  |
| Brown                         | CP319-25-06 (FY13CWA-56-01) | Millard Township     | Elmer      | MIN                       | 56073 | T109 R31 S34       | 29002 | 7/3/2014      | \$ 28,500.00  | \$ 7,125.00   | \$ 7,125.00 |          |           | \$ 7,125.00     | 3/6/2015   | 580   | 0.333  | 203.44     | 203.44    | 203.44    |  |  |  |
| Redwood                       | CP319-26-06 (FY13CWA-57-01) | Jeckell              | Elmer      | MIN                       | 56073 | T109 R37 S25       | 29063 | 12/4/2014     | \$ 3,650.00   | \$ 912.50     | \$ 912.50   |          |           | \$ 912.50       | 5/7/2015   | 638   | 0.333  | 5.67       | 5.67      | 5.67      |  |  |  |
| Lyon                          | CP319-27-06 (FY13CWA-58-01) | NW Farm MGMT         | Lenis      | MIN                       | 56258 | T110 R41 S07       | 29101 | 10/2/2014     | \$ 12,390.71  | \$ 3,097.67   | \$ 3,097.67 |          |           | \$ 3,097.67     | 12/5/2014  | 580   | 0.333  | 28.90      | 28.90     | 28.90     |  |  |  |
| Brown                         | CP319-28-06 (FY13CWA-59-01) | Roiger               | Lenis      | MIN                       | 56083 | T109 R32 S17       | 29017 | 10/2/2014     | \$ 7,200.00   | \$ 1,800.00   | \$ 1,800.00 |          |           | \$ 1,800.00     | 6/4/2015   | 580   | 0.333  | 14.17      | 14.17     | 14.17     |  |  |  |
| Brown                         | CP319-29-06 (FY13CWA-60-01) | Zaig                 | Larry      | MIN                       | 56073 | T109 R31 S11       | 29003 | 10/2/2014     | \$ 21,864.80  | \$ 2,186.35   | \$ 2,186.35 |          |           | \$ 2,186.35     | 8/4/2016   | 580   | 0.78   | 24.68      | 24.68     | 24.68     |  |  |  |
| Brown                         | CP319-30-06 (FY13CWA-61-01) | Veenstra             | Gary       | MIN                       | 56087 | T108 R35 S14       | 29017 | 1/5/2015      | \$ 36,842.80  | \$ 2,362.95   | \$ 2,362.95 |          |           | \$ 2,362.95     | 8/4/2016   | 580   | 0.78   | 24.68      | 24.68     | 24.68     |  |  |  |
| Redwood                       | CP319-31-06 (FY13CWA-62-01) | Dallentach           | Ryan       | MIN                       | 56152 | T109 R37 S15       | 29062 | 5/7/2015      | \$ 17,500.00  | \$ 4,375.00   | \$ 4,375.00 |          |           | \$ 4,375.00     | 11/14/2015 | 580   | 0.333  | 14.16      | 14.16     | 14.16     |  |  |  |
| Redwood                       | CP319-32-06 (FY13CWA-63-01) | Dallentach           | Carol      | MIN                       | 56180 | T110 R38 S19       | 29049 | 5/7/2015      | \$ 20,864.40  | \$ 1,153.18   | \$ 1,153.18 |          |           | \$ 1,153.18     | 9/3/2015   | 638   | 0.333  | 23.00      | 23.00     | 23.00     |  |  |  |
| Cottonwood                    | CP319-33-06 (FY13CWA-64-01) | Anderson             | Tyson      | MIN                       | 56174 | T107 R37 S21       | 29086 | 5/7/2015      | \$ 67,747.05  | \$ 5,704.43   | \$ 5,704.43 |          |           | \$ 5,704.43     | 8/6/2015   | 410   | 0.333  | 26.80      | 26.80     | 26.80     |  |  |  |
| Lyon                          | CP319-34-06 (FY13CWA-65-01) | Wreedman             | Kent       | MIN                       | 56175 | T110 R41 S25       | 29105 | 8/6/2015      | \$ 11,565.44  | \$ 2,728.75   | \$ 2,728.75 |          |           | \$ 2,728.75     | 10/1/2015  | 412   | 0.333  | 3.06       | 3.06      | 3.06      |  |  |  |
| Brown                         | CP319-35-06 (FY13CWA-66-01) | Krzmarzick           | Noibert    | MIN                       | 56085 | T109 R32 S04       | 29006 | 8/6/2015      | \$ 16,533.20  | \$ 3,599.93   | \$ 3,599.93 |          |           | \$ 3,599.93     | 7/7/2016   | 638   | 0.44   | 11.50      | 11.50     | 11.50     |  |  |  |
| Brown                         | CP319-36-06 (FY13CWA-67-01) | Selzer               | Raymond    | MIN                       | 56073 | T110 R31 S33       | 29003 | 6/6/2015      | \$ 23,180.00  | \$ 5,796.00   | \$ 5,796.00 |          |           | \$ 5,796.00     | 9/12/2016  | 580   | 1      | 59.10      | 59.10     | 59.10     |  |  |  |
| Brown                         | CP319-37-06 (FY13CWA-68-01) | City of Springfield  | Ben        | MIN                       | 56087 | T109 R34 S19       | 29020 | 9/10/2015     | \$ 7,404.00   | \$ 1,851.00   | \$ 1,851.00 |          |           | \$ 1,851.00     | 11/14/2015 | 638   | 0.333  | 2.00       | 2.00      | 2.00      |  |  |  |
| Lyon                          | CP319-38-06 (FY13CWA-69-01) | Volmer               | David      | MIN                       | 56175 | T108 R40 S08       | 29086 | 9/10/2015     | \$ 18,305.50  | \$ 13,729.13  | \$ 4,576.37 |          |           | \$ 4,576.37     | 8/4/2016   | 580   | 1      | 19.13      | 19.13     | 19.13     |  |  |  |
| Redwood                       | CP319-39-06                 | Imker                | Lay        | MIN                       | 56152 | T109 R37 S27       | 29063 | 6/9/2016      | \$ 23,927.00  | \$ 17,945.25  | \$ 5,981.75 |          |           | \$ 5,981.75     | 9/1/2016   | 580   | 1      | 26.00      | 26.00     | 26.00     |  |  |  |
| Cottonwood                    | CP319-40-06                 | Simonsen             | Lay        | MIN                       | 56083 | T108 R36 S08       | 29067 | 6/9/2016      | \$ 10,500.00  | \$ 2,625.00   | \$ 2,625.00 |          |           | \$ 2,625.00     | 9/1/2016   | 580   | 1      | 39.00      | 39.00     | 39.00     |  |  |  |
| KEY:                          |                             |                      |            |                           |       |                    |       | \$ 792,378.88 | \$ 189,700.00 | \$ 193,756.73 | \$          |          |           | \$ 1,889,700.00 |            |       |        | 1,055.95   | 1,055.95  | 1,055.95  |  |  |  |
|                               |                             |                      |            |                           |       |                    |       |               |               |               |             |          |           |                 |            |       |        |            |           |           |  |  |  |
|                               |                             |                      |            |                           |       |                    |       |               |               |               |             |          |           |                 |            |       |        |            |           |           |  |  |  |

PROJECT TITLE: Cottonwood Streambank Inventory and Prioritization Project SW55326  
 WORK PLAN BUDGET/EXPENDITURES AS OF: August 31, 2016

| Objectives   | unit cost      | unit     | Quantity Exp/budget | Local Match Budgeted | Grant Cash Budgeted | Total Budgeted | Cumulative Local Match Expended | Cumulative Grant Cash Expended | Cumulative Total Expended | Local Match Budget Balance | Grant Cash Budget Balance | Total Budget Balance | Amount Requested this Voucher | Amount Previously Requested |
|--|----------------|----------|---------------------|----------------------|---------------------|----------------|---------------------------------|--------------------------------|---------------------------|----------------------------|---------------------------|----------------------|-------------------------------|-----------------------------|
| <b>Objective 1) BMP Technical Assistance and Implementation</b>                          |                |          |                     |                      |                     | \$0.00         |                                 |                                | \$0.00                    | \$0.00                     | \$0.00                    | \$0.00               | \$0.00                        |                             |
| Task A: Technical and implementation activities relating to BMP funding (Obj. 1; Task B) | \$31.00        | 754      | \$23,368.00         |                      | \$23,368.00         | \$23,368.00    | \$23,368.00                     | \$23,368.00                    | \$23,368.00               | \$0.00                     | \$0.00                    | \$0.00               | \$2,883.96                    | \$20,484.04                 |
| Task B: BMP cost sharing, prioritization and ranking.                                    |                |          | \$229,700.00        | \$40,000.00          | \$189,700.00        | \$229,700.00   | \$193,756.73                    | \$189,700.00                   | \$383,456.73              | -\$153,756.73              | \$0.00                    | -\$153,756.73        | \$1,897.26                    | \$107,802.74                |
| Task C: Promote and Implement MPCA low interest loan program                             | \$8,200.00 per | 15.00    | \$123,000.00        | \$123,000.00         |                     | \$123,000.00   | \$111,875.90                    |                                | \$111,875.90              | \$11,124.10                | \$0.00                    | \$11,124.10          | \$0.00                        |                             |
| <b>Total Objective 1</b>   |                |          | \$376,068.00        | \$163,000.00         | \$213,068.00        | \$376,068.00   | \$305,632.63                    | \$213,068.00                   | \$518,700.63              | -\$142,632.63              | \$0.00                    | -\$142,632.63        | \$84,781.22                   | \$128,286.78                |
| <b>Objective 2) -Priority Project Inventory Development and Analysis</b>                 |                |          |                     |                      |                     | \$0.00         |                                 | \$0.00                         | \$0.00                    | \$0.00                     | \$0.00                    | \$0.00               |                               | \$0.00                      |
| GIS/Ground Truthing Analysis Relating to Project Suitability                             | \$25.00        | 1371     | \$34,272.00         |                      | \$34,272.00         | \$34,272.00    |                                 | \$34,272.00                    | \$34,272.00               | \$0.00                     | \$0.00                    | \$0.00               | \$19,190.75                   | \$15,081.25                 |
| <b>Total Objective 2</b>   |                |          | \$34,272.00         | \$0.00               | \$34,272.00         | \$34,272.00    | \$0.00                          | \$34,272.00                    | \$34,272.00               | \$0.00                     | \$0.00                    | \$0.00               | \$19,190.75                   | \$15,081.25                 |
| <b>Objective 3) -Grant Administration and Facilitation</b>                               |                |          |                     |                      |                     | \$0.00         |                                 | \$0.00                         | \$0.00                    | \$0.00                     | \$0.00                    | \$0.00               |                               | \$0.00                      |
| FORCA Appropriation  | \$20,000/yr    | 4 yr.    | \$80,000.00         | \$80,000.00          |                     | \$80,000.00    | \$81,911.58                     |                                | \$81,911.58               | -\$1,911.58                | \$0.00                    | -\$1,911.58          | \$0.00                        | \$0.00                      |
| FORCA Executive Director   | \$29,000/hr    | 1020 hrs | \$29,580.00         |                      | \$29,580.00         | \$29,580.00    |                                 | \$29,580.00                    | \$29,580.00               | \$0.00                     | \$0.00                    | \$0.00               | \$5,561.31                    | \$24,018.69                 |
| FORCA Support Staff  | \$20,000/hr    | 703 hrs  | \$14,060.00         |                      | \$14,060.00         | \$14,060.00    |                                 | \$14,060.00                    | \$14,060.00               | \$0.00                     | \$0.00                    | \$0.00               | \$2,772.90                    | \$11,287.10                 |
| Office Supplies  | \$750,000/yr   | 4 yr.    | \$3,000.00          |                      | \$3,000.00          | \$3,000.00     |                                 | \$3,000.00                     | \$3,000.00                | \$0.00                     | \$0.00                    | \$0.00               | \$489.67                      | \$2,510.33                  |
| Meal/rent/expenses/professional services   | \$755,000/yr   | 4 yr.    | \$3,020.00          |                      | \$3,020.00          | \$3,020.00     |                                 | \$3,020.00                     | \$3,020.00                | \$0.00                     | \$0.00                    | \$0.00               | \$0.00                        | \$3,020.00                  |
| <b>Total Objective 3</b>   |                |          | \$129,660.00        | \$80,000.00          | \$49,660.00         | \$129,660.00   | \$81,911.58                     | \$49,660.00                    | \$131,571.58              | -\$1,911.58                | \$0.00                    | -\$1,911.58          | \$8,823.88                    | \$40,836.12                 |
| <b>ITEMIZED PROGRAM ELEMENT BUDGET</b>   |                |          |                     |                      |                     |                |                                 |                                |                           |                            |                           |                      |                               |                             |
| Total Element 1  |                |          | \$376,068.00        | \$163,000.00         | \$213,068.00        | \$376,068.00   | \$305,632.63                    | \$213,068.00                   | \$518,700.63              | -\$142,632.63              | \$0.00                    | -\$142,632.63        | \$84,781.22                   | \$128,286.78                |
| Total Element 2  |                |          | \$34,272.00         | \$0.00               | \$34,272.00         | \$34,272.00    | \$0.00                          | \$34,272.00                    | \$34,272.00               | \$0.00                     | \$0.00                    | \$0.00               | \$19,190.75                   | \$15,081.25                 |
| Total Element 3  |                |          | \$129,660.00        | \$80,000.00          | \$49,660.00         | \$129,660.00   | \$81,911.58                     | \$49,660.00                    | \$131,571.58              | -\$1,911.58                | \$0.00                    | -\$1,911.58          | \$8,823.88                    | \$40,836.12                 |
| <b>Project Grand Total</b>   |                |          | \$540,000.00        | \$243,000.00         | \$297,000.00        | \$540,000.00   | \$387,544.21                    | \$297,000.00                   | \$684,544.21              | -\$144,544.21              | \$0.00                    | -\$144,544.21        | \$112,795.85                  | \$184,204.15                |