

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: SCR_10_CMP11
Name: Silver Spring Creek Channel and Sediment Stability Assessment - SCR 10_11 (USGS # BQY36)
Type: Targeted Monitoring
Subtype: Newly Proposed
Status: COMPLETE
Start Date: 07/01/2010
End Date: 06/30/2011
Purpose: Silver Spring Creek is a potential cold water fishery in Lafayette County that is currently on the 303(d) list as a result of habitat degradation due to sediment. An assessment of erosion and sedimentation is needed, as well as establishment of baseline channel and sediment conditions. Using methods similar to the Kittleson Valley buffers initiative project, the USGS, WDNR, and county will cross section surveying and pebble counts at 3 sites on Silver Spring Creek.

This complements the channel assessment and habitat evaluation done in cooperation with the DNR and UW-Madison. To date, 5 sites have been surveyed twice in the Pleasant Valley watershed (2008 and 2009) and rapid channel assessments have been done at about 30 sites each in the Pleasant Valley and Smith-Conley subwatersheds. The rapid assessment includes detailed measurements of eroding banks and soft fine-grained sediment deposits.

Objective: Collect stream morphological data in order to determine the effects of TMDL implementation in a small subwatershed. This project will help determine the stream's response to sediment loads before, during, and after implementation of BMPs designed to reduce sediment loss from fields.

Comments:

Outcome: 1) Cross sections with permanent endpoints
 2) Excel spreadsheet of cross sections, pebble counts, longitudinal profiles, and rapid geomorphic assessment results, estimates of bank erosion, historical overbank sediment, and in-channel fine sediment.
 3) PowerPoint presentation updates at partnership meetings and possibly a regional conference.

We will gain empirical data that will link our biological and habitat measurements with long-term physical measurements.

All data will be made available on WATERS.

Study Design:

QA Measures:

People

| Name | Role | Status | Start Date | End Date | Organization | Comments |
|------------------|-------------|--------|------------|------------|---------------|--|
| HANSIS, ROBERT D | COORDINATOR | ACTIVE | 07/01/2010 | 06/30/2011 | Wisconsin DNR | Faith Fitzpatrick will be replacing Bob when he retires. |

Project Statuses

| Date | Reported By | Status | Comments |
|------------|-----------------|----------------------------|--|
| 03/04/2010 | MOLLI MACDONALD | Proposed | |
| 01/21/2011 | ROBERT HANSIS | Progress: 75-100% Complete | Field work, lab analysis of sediment and preliminary data analysis has been completed by USGS. Some of the results were included in a talk given to the Geological Society of America in October, 2010. |
| 06/14/2011 | ROBERT HANSIS | Progress: 75-100% Complete | Some data analysis has been completed. Stored sediment has been found to be a huge component of the watershed sediment budget. Three valley cross-section surveys were completed in June, 2011. |
| 06/20/2011 | MOLLI MACDONALD | Progress: 75-100% Complete | I was looking through the SWIMS worktables that holds all the data with problems. I found data which looks like 16 sediment core composite samples for your current Competitive Project on Silver Spring Creek. If I can get the coordinates for the sites, I can make stations. Or you can make stations. I have them sorted by field no. - SS1, etc. It looks like 16 stations are needed. |

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| Date | Reported By | Status | Comments |
|------------|---------------|----------|--|
| 03/26/2012 | JAMES AMRHEIN | Complete | Final report may be available from USGS. |

Project Status Detail

Answer Set: DEFAULT

| Question | Answer |
|--|--|
| 1. Number of Sample Sites (Enter the station IDs if you know them). | 3 sites on Silver Spring Creek |
| 2. Number of Sample Events (Indicate how many trips into the field you anticipate for this project). | Contract with USGS will handle sampling events, meals, transportation, etc. |
| 3. Proposed Dates for Sample Collection | Calendar year 2010. |
| 4. List applicable databases and who will enter data? | Spreadsheets will be shared from USGS and entered into SWIMS. Bob Hansis is project manager. |
| 5. Did you receive competitive projects funding in the previous year? | Yes |
| 6. If yes to question 5, did you complete the projects including data entry and reports as necessary? If not, why not? | Data from those projects are still being gathered. |
| 7. Reviewer Notes: Identify questions or issues with project (use during review period) | |
| 8. Reviewer Decision: Is this project recommended for funding? | |

Actions

| Action | Detailed Description | Start | End Date | Status |
|-----------------|--------------------------------|------------|------------|----------|
| TMDL Monitoring | 3 sites on Silver Spring Creek | 07/01/2010 | 06/30/2011 | PROPOSED |

Monitoring Stations

| Station ID | Name | Comments |
|------------|--|----------|
| 10034754 | East Tributary to Silver Spring Creek east of CTH M | |
| 10031660 | Silver Spring 525m upstream of Pec. R. | |
| 10037954 | Silver Spring Creek 100ft US confluence | |
| 10031545 | Silver Spring Creek in Rolli Pasture (~400 ft E of Tish Rd) | |
| 10034755 | Silver Spring Creek near Cherry Rd DS of fence line at wood | |
| 10037949 | Silver Spring Creek north of Hwy M | |
| 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) | |
| 10031346 | Unnamed Tributary (5040863) to Silver Spring Creek | |
| 10031345 | Unnamed Tributary (917800) to Silver Spring Creek at Tish Rd | |
| 10031350 | Unnamed Tributary (917900) to Silver Spring Creek S of Walnut Road | |
| 10037952 | Unnamed trib to Silver Spring Creek US Farm driveway | |
| 10037953 | Unnamed trib to Silver Spring Creek US of confluence | |

Assessment Units

| WBIC | Segment | Local Name | Official Name |
|---------|---------|--|---------------------|
| 917700 | 1 | Silver Spring Creek | Silver Spring Creek |
| 917800 | 1 | Local Water | Unnamed |
| 917900 | 1 | Local Water | Unnamed |
| 5040863 | 1 | Unnamed Tributary to Silver Spring Creek | Unnamed |
| 5040896 | 1 | Local Water | Unnamed |

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Lab Account Codes

| Account Code | Description | Start Date | End Date |
|--------------|--------------------------------|------------|------------|
| WT107 | Watershed Special Projects | 05/27/2009 | 06/30/2010 |
| WT117 | STREAMS/RIVERS SPECIAL PROJECT | 06/03/2010 | 06/30/2011 |

Forms

| Form Code | Form Name |
|-----------|-----------|
|-----------|-----------|

Methods

| Method Code | Description |
|-------------|-------------|
|-------------|-------------|

Fieldwork Events

| Start Date | Status | Field ID | Station ID | Station Name |
|------------------|----------|----------|------------|--|
| 02/17/2010 10:59 | COMPLETE | SS-FEB | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 03/18/2010 11:13 | COMPLETE | SS-MAR | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 04/14/2010 11:15 | COMPLETE | SS-APR | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 05/11/2010 11:19 | COMPLETE | SS-MAY | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 05/25/2010 10:00 | COMPLETE | SS-1 | 10031660 | Silver Spring 525m upstream of Pec. R. |
| 05/25/2010 10:00 | COMPLETE | SS1 | 10031660 | Silver Spring 525m upstream of Pec. R. |
| 05/25/2010 13:00 | COMPLETE | SS-2 | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 05/25/2010 13:00 | COMPLETE | SS2 | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 05/25/2010 15:30 | COMPLETE | SS-3 | 10031345 | Unnamed Tributary (917800) to Silver Spring Creek at Tish Rd |
| 05/25/2010 15:30 | COMPLETE | SS3 | 10031345 | Unnamed Tributary (917800) to Silver Spring Creek at Tish Rd |
| 05/26/2010 09:00 | COMPLETE | SS-12 | 10037954 | Silver Spring Creek 100ft US confluence |
| 05/26/2010 09:00 | COMPLETE | SS-12 | 10037954 | Silver Spring Creek 100ft US confluence |
| 05/26/2010 11:00 | COMPLETE | SS-14 | 10037953 | Unnamed trib to Silver Spring Creek US of confluence |
| 05/26/2010 11:00 | COMPLETE | SS-14 | 10031345 | Unnamed Tributary (917800) to Silver Spring Creek at Tish Rd |
| 05/26/2010 14:00 | COMPLETE | SS-4 | 10037952 | Unnamed trib to Silver Spring Creek US Farm driveway |
| 05/26/2010 14:00 | COMPLETE | SS4 | 10037952 | Unnamed trib to Silver Spring Creek US Farm driveway |
| 05/26/2010 15:00 | COMPLETE | SS-5 | 10031350 | Unnamed Tributary (917900) to Silver Spring Creek S of Walnut Road |
| 05/26/2010 15:00 | COMPLETE | SS-5 | 10031350 | Unnamed Tributary (917900) to Silver Spring Creek S of Walnut Road |
| 06/02/2010 10:00 | COMPLETE | SS-15 | 10031545 | Silver Spring Creek in Rolli Pasture (~400 ft E of Tish Rd) |
| 06/02/2010 10:00 | COMPLETE | SS-15 | 10031545 | Silver Spring Creek in Rolli Pasture (~400 ft E of Tish Rd) |
| 06/02/2010 12:30 | COMPLETE | SS-13 | 10031545 | Silver Spring Creek in Rolli Pasture (~400 ft E of Tish Rd) |
| 06/02/2010 12:30 | COMPLETE | SS-13 | 10031545 | Silver Spring Creek in Rolli Pasture (~400 ft E of Tish Rd) |
| 06/02/2010 16:30 | COMPLETE | SS-7 | 10034755 | Silver Spring Creek near Cherry Rd DS of fence line at wood |
| 06/02/2010 16:30 | COMPLETE | SS-7 | 10034755 | Silver Spring Creek near Cherry Rd DS of fence line at wood |
| 06/03/2010 10:00 | COMPLETE | SS-10 | 10031345 | Unnamed Tributary (917800) to Silver Spring Creek at Tish Rd |
| 06/03/2010 10:00 | COMPLETE | SS-10 | 10031345 | Unnamed Tributary (917800) to Silver Spring Creek at Tish Rd |
| 06/03/2010 11:30 | COMPLETE | SS-16 | 10031350 | Unnamed Tributary (917900) to Silver Spring Creek S of Walnut Road |
| 06/03/2010 11:30 | COMPLETE | SS-16 | 10031350 | Unnamed Tributary (917900) to Silver Spring Creek S of Walnut Road |
| 06/03/2010 14:00 | COMPLETE | SS-11 | 10034754 | East Tributary to Silver Spring Creek east of CTH M |
| 06/03/2010 14:00 | COMPLETE | SS-11 | 10034754 | East Tributary to Silver Spring Creek east of CTH M |
| 06/09/2010 09:30 | COMPLETE | SS-8 | 10037949 | Silver Spring Creek north of Hwy M |

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| Start Date | Status | Field ID | Station ID | Station Name |
|------------------|----------|------------------|------------|--|
| 06/09/2010 09:30 | COMPLETE | SS-8 | 10037949 | Silver Spring Creek north of Hwy M |
| 06/14/2010 11:05 | COMPLETE | SS-JUNE | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 07/06/2010 | COMPLETE | SS-07062010 #1/2 | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |
| 10/14/2010 09:43 | COMPLETE | SS-OCT | 10014238 | Silver Spring Creek-Baseline Lower (at Silver Spring Rd) |

Documents

| Title | Description | Author | Published | Comments |
|---|---|--------|------------|----------|
| Channel sources of legacy sediment in agricultural streams and implications for nutrient and biological impairments | PowerPoint showing sediment sources and sinks in driftless area streams including Silver Spring Creek | Hansis | 10/02/2010 | |
| Silver Spring Creek Channel and Sediment Stability Assessment | Silver Spring Creek Channel and Sediment Stability Assessment | | 01/03/2017 | |

Budget

Budget Description: Budget for Silver Spring Creek Channel and Sediment Stability Assessment - SCR 10_11 **Start Date:** 07/01/2010 **End Date:** 06/30/2011

| Code | Description | Quantity | Units | Unit Cost | Total Cost | Comments |
|--------------|-----------------------------------|----------|-------|-------------|--------------------|--------------------|
| FTE | FTE Hours | | Hours | \$0.00 | \$0.00 | |
| LTE SAL | LTE Salary | | Hours | \$13.00 | \$0.00 | |
| LTE FR | LTE Fringe | | | | \$0.00 | |
| LTE IND | LTE Indirect | | | | \$0.00 | |
| LTE TOT | LTE Total Cost | | | | \$0.00 | |
| SUPPLY | Supplies | | | | \$0.00 | |
| MILEAGE | Mileage | | Miles | \$0.72 | \$0.00 | |
| MEAL | Meals | | Meals | \$9.00 | \$0.00 | |
| LODGE | Lodging | | | | \$0.00 | |
| TRAVEL | Travel Total | | | | \$0.00 | |
| BUG | Bug Contracts | | | | \$0.00 | |
| OTHER | Other Contracts | 1 | | \$10,000.00 | \$10,000.00 | Contract with USGS |
| EQUIP | Equipment | | | | \$0.00 | |
| USGS | USGS Costs | | | \$6,700.00 | \$0.00 | USGS Match |
| TOTAL | Total Cost (excludes SLOH) | | | | \$10,000.00 | |

| Test Code | Description | Test Group | # Planned | Unit Cost | Total Cost |
|-----------|--|---------------------|-----------|-----------|------------|
| I440NLD | AMMONIA (AS N), DISS (EPA 350.1) | INORGANIC CHEMISTRY | 14 | \$25.89 | \$362.46 |
| I460GLT | NITRATE + NITRITE (AS N) (EPA 353.2) | INORGANIC CHEMISTRY | 14 | \$27.89 | \$390.46 |
| I470DLT | TOTAL KJELDAHL NITROGEN (AS N) (EPA 351.2) | INORGANIC CHEMISTRY | 14 | \$32.99 | \$461.86 |
| I520PLT | TOTAL PHOSPHORUS (AS P) (EPA 365.1) | INORGANIC CHEMISTRY | 14 | \$23.60 | \$330.40 |
| I650JLT | SUSPENDED SOLIDS (EPA METHOD 160.2) | INORGANIC CHEMISTRY | 14 | \$18.80 | \$263.20 |

Total SLOH Lab Costs: \$1,808.38
Total Budget: \$11,808.38

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Combined Budgets: \$10,000.00
Combined SLOH: \$1,808.38
Combined Total: \$11,808.38

Funding

| Organization | Source | Type | Amount | Start Date | End Date |
|--------------|--------|------|--------|------------|----------|
|--------------|--------|------|--------|------------|----------|