

Summit Lake WIRB 8004-001 Final Report

Date: January 31, 2012

Financial Accountability

The total approved funds are based on the latest approved amendment.

Watershed Improvement Funds Grant Agreement

| Budget Line Item | Total Funds Approved (\$) | Total Funds Approved— Amended (\$) | Total Funds Expended (\$) | Available Funds (\$) |
|-----------------------------------|---------------------------|---------------------------------------|---------------------------|----------------------|
| Engineering | \$15,000 | \$15,000 | \$15,000 | \$0 |
| Legal and ordinances | \$1,000 | \$0 | \$0 | \$0 |
| Project administration | \$12,500 | \$12,500 | \$12,500 | \$0 |
| Shoreline stabilization | \$305,617 | \$306,617 | \$306,617 | \$0 |
| Water quality monitoring | \$1,500 | \$300 | \$300 | \$0 |
| Rain gardens | \$3,000 | | | |
| Grade stabilization | \$27,000 | \$12,342 | \$12,342 | \$0 |
| Grass waterways | \$24,000 | \$9,632 | \$9,632 | \$0 |
| Terraces | \$96,000 | \$124,233 | \$124,233 | \$0 |
| Water and sediment control basins | \$7,500 | \$12,493 | \$12,493 | \$0 |
| Totals | \$493,117 | \$493,117 | \$493,117 | \$0 |
| Difference | | | | \$0 |

* *Expended funds include the final draw of funds submitted recently.***Total Project Funding**

| Funding Source | Cash | | In-Kind Contributions | | Total | |
|----------------|----------------------------------|--------------|----------------------------------|-------------|----------------------------------|--------------|
| | Approved Application Budget (\$) | Actual (\$) | Approved Application Budget (\$) | Actual (\$) | Approved Application Budget (\$) | Actual (\$) |
| WIRB | \$493,117 | \$493,117 | \$0 | \$0 | \$493,117 | \$493,117 |
| City | \$106,300 | \$72,466.41 | \$0 | \$1,236 | \$106,300 | \$73,702.41 |
| NRCS/SWCD | \$0 | \$0 | \$17,973 | \$10,504 | \$17,973 | \$10,504 |
| Union County | \$0 | \$0 | \$1,000 | \$0 | \$1,000 | \$0 |
| Local partners | \$0 | \$0 | \$8,700 | \$7,622.41 | \$8,700 | \$7,622.41 |
| Landowners | \$51,500 | \$91,685.67 | \$0 | \$0 | \$51,500 | \$91,685.67 |
| Totals | \$650,917 | \$657,249.08 | \$27,673 | \$19,362.41 | \$678,590 | \$676,631.49 |

Watershed Improvement Fund contribution: Approved application budget: 72.7 %
 Actual: 72.9 %

The differences in the application and final budget are due to some changes to the project scope that were addressed in the various amendments approved by the WIRB during the project and the difference between the proposed in-kind and cash contributions compared to the actual amount based on actual hours investment and actual bid prices for work completed.

Environmental Accountability

Water monitoring was completed by different groups at different times during the project, using

different methods and sampling different locations, so the results are difficult to interpret. The results were mixed at best, with no conclusive improvement to environmental factors. The main problem is that during the project by Summit Lake and upstream Green Valley Lake were drained for fishery and habitat improvements and, in the case of Green Valley, for dredging work. It is recommended that water monitoring continue for a year or two after the lakes are refilled and stocked with fish. The results at that time should be compared with the results during the three years of the WIRB project.

However, using the Sediment Delivery Calculator, we were able to demonstrate the annual reduction of a total of 3,452.75 tons of sediment and 4,489.5 pounds of phosphorus into Summit Lake.

The following table summarizes the proposed work versus what was actually completed. The difference being mainly the changing interest among farmers and landowners once the projects were finalized.

Practices and Activities

| Practice or Activity | Unit | Approved Application Goal | Accomplishments | Percent Completion |
|--|------------|---------------------------|-----------------|--------------------|
| Shoreline stabilization | LF | 18,500 | 18,200 | 98.4% |
| Further septic assessment | LS | 1 | 1 | 100% |
| Install demonstration rain garden | No. | 1 | 0 | 0% |
| Engineering, bidding, and contracting | LS | 1 | 1 | 100% |
| Legal and ordinances * | LS | 1 | 0 | 0% |
| Water monitoring | LS (years) | 3 | 3 | 100% |
| Education, information and outreach ** | No. | 2 | 2 | 100% |
| Administration and personnel | Hr. | 550 | 550 | 100% |
| Grade stabilization structures | No. | 2 | 2 | 100% |
| Grassed waterways | Acres | 8.1 | 5.8 | 71.6% |
| Terraces | LS | 23,075 | 21,806 | 94.5% |
| Water and sediment control basins | No. | 8 | 8 | 100% |

* Legal and ordinances were researched and information discussed at the county level but they were not enacted at this time and no local funding share has been documented for this activity.

** Two major public meetings, one at beginning and one at end, several photo ops and newspaper articles, and printing and distribution of flyers and other notices about the project. Website discussed but not yet initiated. Also, a field tour was provided in September 2011 to allow the public and high school biology students a chance to learn more about the practices and their impacts on the lake.

It is difficult to judge changes in behavior in the watershed, but several more farmers are interested in doing work with future cost-share programs, and several residents along the shoreline of the lake

have indicated interest in expanding and maintaining the shoreline vegetative buffer in the area for long-term protection. The IDNR has indicated the interest in improving the boat ramp area, including placement of an informational sign, installation of native grassland, and boat ramp improvements to reduce soil disturbance when boats enter and leave the lake. The IDNR also intends to establish aquatic vegetation that was lacking due to excessive carp and yellow bass populations before the project was implemented. Two landowners in the watershed installed Buffer Strips with fencing to eliminate livestock access to perennial streams in the watershed utilizing non WIRB funding. Finally, FEMA/CDBG has awarded funds to repair the Summit Lake Dam and spillway to reduce downstream flooding and undesired fish access to the lake.

Program Accountability

The main thing that was done to expand the project is to continue with plans to make the lake into a water source lake. This included the upland septic tank assessment around the lake, which we hope will result in a full sewer system to replace septic systems in the area. Plans are progressing well. The IDNR is working with the City of Creston to make the lake into a viable fishery by killing off the fish population, improving the boat ramp area, and repairing the dam and spillway. These efforts have exceeded what was expected when the WIRB grant was submitted and are funded with no WIRB funds.

There were many challenges in the project, including an overly complicated budget. It took some time to revise the budget and simplify the WIRB ledger and pay request system. Mr. Neppel and Mr. Waters were great resources in these efforts. Water monitoring was a challenge due to the very wet weather at times and issues with the timing of lake restoration work to Green Valley and Summit Lakes. Also, there was no one champion with time and skills in this area that handled the monitoring of the watershed. The most significant challenge that was faced, however, was almost a year delay in the riprap work (shoreline stabilization) to Summit Lake due to the weather and due to delays in securing a permit from the US Army Corps of Engineers.

With time, most of the challenges were overcome or mitigated to some degree. We feel we have a viable project that combined effectively the stabilization of a mid-sized reservoir's shoreline and completion of upland BMPs while always keeping the public in the rural area and the town of Creston aware of the project.

With the oversight of a professional engineer on the shoreline stabilization, experienced IDNR and City Waterworks staff doing water monitoring work, experienced NRCS staff overseeing the upland BMPs, experienced daily grant administration provided by the Southern Iowa Council of Governments, and technical assistance provided by Basin Coordinator Bob Waters and WIRB Administrator Jerry Neppel, all overseen by the Creston Water Board and the Summit Lake Partnership, the project was completed professionally and was accountable to the public and community served.

Recommendations for improvement may include:

- Gaining a firm champion to design and implement the water monitoring element.
- Create a simple WIRB budget proposal with more management elements.
- Gain firmer costs and commitments for projects and activities at the application stage so there are fewer amendments during the project.

- Make sure you understand the WIRB ledger at the beginning of the project so you don't have problems compounding as you move to future periods.

Attachments

The following are attached as they are relevant.

- Educational powerpoint presentations
- Outreach items and notices
- Maps
- Photos

For details or if you have questions, please contact Jeremy Rounds, 641.782.8491, rounds@sicog.com.