8012-008 Lake Morris Final Project Report

Financial Accountability

Watershed Improvement Funds

| Grant Agreement Budget Line | Total Funds | Total Funds | Total Funds | Available |
|--------------------------------|--------------|--------------|--------------|--------------|
| Item | Approved | Approved – | Expended | Funds (\$) |
| | (\$) | Amended (\$) | (\$) | |
| Equipment | \$195,000.00 | \$195,000.00 | \$182,637.36 | \$ 12,362.64 |
| Personnel (Salary/Benefits) | \$ 72,000.00 | \$ 72,000.00 | \$ 30,975.44 | \$ 41,024.56 |
| Contractual-administrative | \$ 60,000.00 | \$ 500.00 | \$ 500.00 | \$ 0 |
| Grade Stabilization Structures | \$ 48,750.00 | \$ 60,750.00 | \$ 27,743.45 | \$ 33,006.55 |
| Water/Sediment Basins | \$ 86,625.00 | \$107,625.00 | \$ 81,170.40 | \$ 26,454.60 |
| Terraces on Private Landowners | \$ 0 | \$ 15,000.00 | \$ 6,153.75 | \$ 8,846.25 |
| Water/Sediment Basins on | \$ 0 | \$ 11,500.00 | \$ 4,792.85 | \$ 6,707.15 |
| Private Landowner | | | | |
| Totals | \$462,375.00 | \$462,375.00 | \$333,973.25 | \$128,401.75 |
| Difference | | | | \$128,401.75 |

By amending the original approved application budget, more acres were treated incorporating private land owners within Lake Morris' watershed. Two landowners built terraces. One landowner built a basin. Agren Pond Builder program was purchased with Contractual-administrative funds to aid in estimates for private landowner BMP's.

Total Project Funding

Total Project Funding

| | Cash | | In-Kind Contributions | | Total | |
|-------------------|--|--------------|--|-------------|--|--------------|
| Funding Source | Approved Application Budget (\$) | Actual (\$) | Approved Application Budget (\$) | Actual (\$) | Approved Application Budget (\$) | Actual (\$) |
| WIRB | \$462,375.00 | \$333,973.25 | 0 | 0 | \$462,375.00 | \$333,973.25 |
| Chariton Water | \$ 77,625.00 | \$ 72,816.51 | 0 | \$7,648.00 | \$ 77,625.00 | \$ 80,464.51 |
| City of Chariton | \$ 15,000.00 | \$ 15,000.00 | 0 | \$1,297.50 | \$ 15,000.00 | \$ 16,297.50 |
| IFIP | \$ 0 | \$ 4,662.00 | 0 | 0 | \$ 0 | \$ 4,662.00 |
| Recipient | \$ 7,500.00 | \$ 5,349.56 | 0 | 0 | \$ 7,500.00 | \$ 5,349.56 |
| Totals | \$562,500.00 | \$431,625.26 | 0 | \$8,945.50 | \$562,000.00 | \$440,746.82 |

Watershed Improvement Fund contribution: Approved application budget: 82% Actual: 76% A significant difference resulted between the actual cash dollars allotted and the actual amounts expended. The City was able to receive REAP funds for seeding, thus saving WIRB dollars. The water monitoring aided in seeing the results of installing the SolarBees and structures within the watershed. Lake Morris' water was tested daily. Seeding costs and water monitoring costs are reflected in the In-kind Actual dollars. The difference of the approved application budget (\$462,375.00) and the actual amount of WIRB funds expended (\$333,973.25) is \$128,401.75. The project was completed under budget.

WIRB incrementally allotted \$375,974.00. The expenditure, as above, was \$333,973.25. \$42,000.75 will be returned to WIRB.

Environmental Accountability

Practices and Activities:

| Practice or Activity | Unit | Approved | Accomplishments | Percent |
|-------------------------------------|------|----------------------|----------------------|------------|
| | | Application Goal | | Completion |
| Equipment-SolarBees* | No. | 5 | 5 | 100 |
| Contractual-administrative | No. | Engineering Services | 1 PondBuilderProgram | 100 |
| Workshops/Training | No. | 0 | 11 | 100 |
| Structure Seeding on City Land | No. | 20 | 9 | 45 |
| Water Monitoring** | No. | 0 | 1,095 | 100 |
| Grade Stabilization Structures*** | No. | 3 | 2 | 66 |
| Water/Sediment Basins | No. | 17 | 19 | 112 |
| Terraces | Ft. | 0 | 2,550 | 100 |
| Tours | No. | 0 | 2 | 100 |
| Newspaper Articles | No. | 5 | 9 | 180 |
| Public Awareness at County Fair**** | No. | 0 | 3 | 100 |

* See attached SolarBee picture

** See attached Water Monitoring report

*** See attached Before and After picture

****See attached Location Map

Goals were to reduce pH maximums from over 9.0 to 8.0 and turbidity monthly average from 2008 yearly average of 15 ntu (<u>n</u>ephelometric <u>t</u>urbidity <u>u</u>nits) to 10 ntu. SolarBees were installed 3/23/09. Chariton Water Department reported SolarBees reduced algae blooms that cause higher pH readings. The drought in 2011 summer pH number goal was met at 7.93 this year. Turbidity yearly average was 14 ntu. The Water Dept. reported that it will take some time to actually know how affective the structures will be, but it is anticipated that turbidity ntu will consistently lower. It is anticipated lower turbidity ntu will occur over the next year.

Program Accountability

By amending the WIRB Agreement, dollars were better utilized to save sediment entering Lake Morris. By having more news articles, people were reminded of the project; public awareness of the project was increased. By having a table at the local county fair also increased public awareness of the project.

Challenges were mainly the weather. Both contractors constructing structures on City land had their contracts extended; one contractor was delayed with extensive rain; the other contractor was delayed with both rain and snow. Both contractors completed the structures of their contracts by the end of the WIRB agreement. Another challenge was being positive in a negative situation – dealing with a contractor who wanted to do things his way instead of according to NRCS specifications. By being visible on the project on numerous occasions indicated to the contractor the project was being monitored.

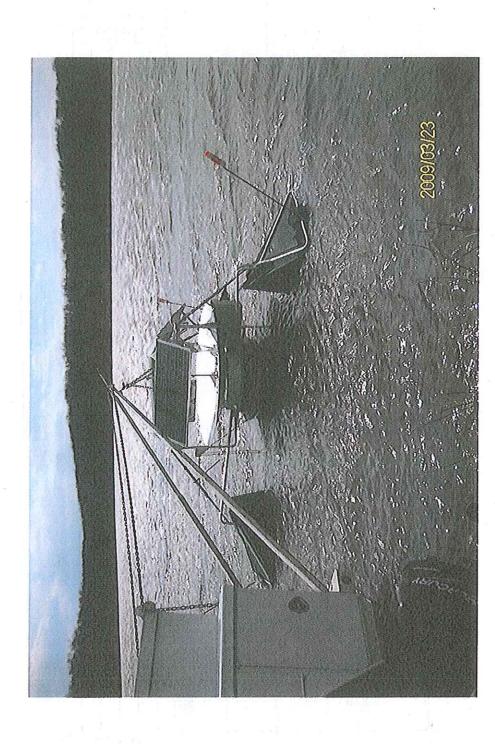
Lessons learned from this project:

- Talking with other project coordinators is very valuable, especially seasoned ones. Visiting other projects is helpful. Having another project coordinator visit the project was helpful to see what could be done with problem areas.
- At contractor meetings before competitive bidding, all requirements of a contractor need to be specified, handouts explaining all requirements are helpful, all NRCS specifications of the project need to be reviewed, all project partners need to be present and their obligations reviewed. Detailed minutes of these meetings need to be on file for reference.
- Focus on contractor activities that NRCS specifications* are being met. Keeping in contact with them on a daily basis was important.
- Keeping in contact with regional coordinators and Jerry Nepel was benefitting. There is never such a thing as a dumb question that is how a person learns.

Lake Morris Watershed Project is completed. Lucas County SWCD is thankful for the WIRB dollars that will aid in the improvement of the City of Chariton's drinking water and the overall welfare of the lake.

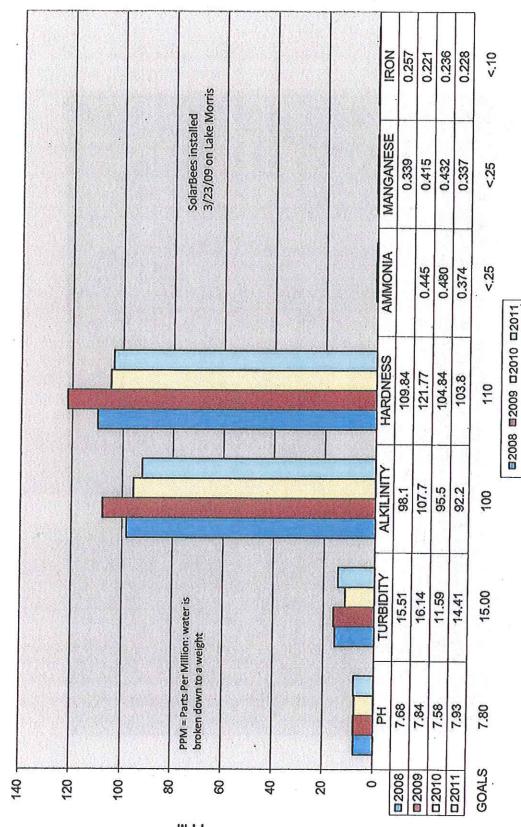
*See attached NRCS IA-23 Construction Specification Earthfill Pictures

8012-008 Lake Morris SolarBee



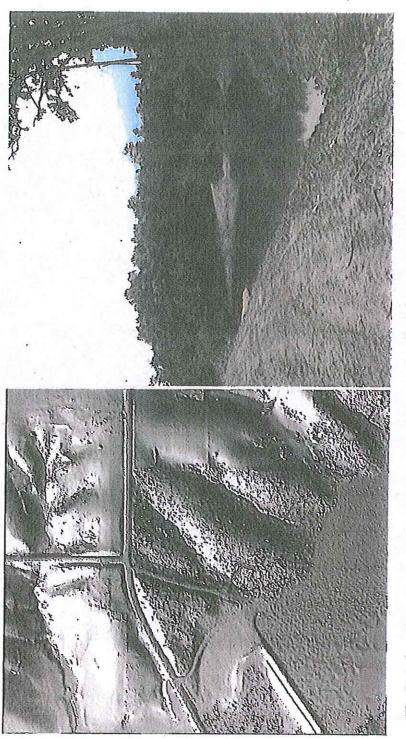
8012-008 Lake Morris Water Monitoring Report





Wdd

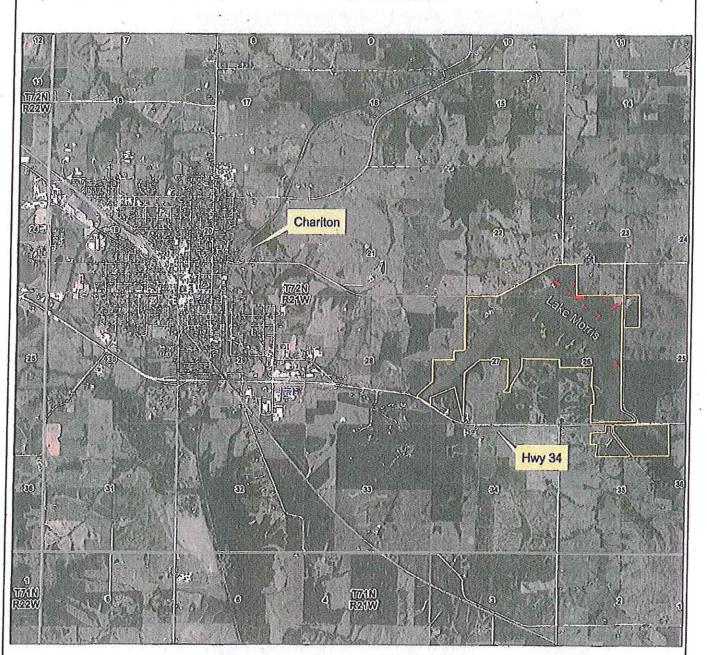
8012-008 Lake Morris Watershed Before and After Pictures of Grade Stabilization on East Side



The Far Left red line across an old road and a ditch is "Before" the Grade Stabilization Structure.

The Grade Stabilization Structure – up to the right of the dam line (surrounded by trees) is where the old road was. 8012-008 Lake Morris Location Map

Lincoln Twp, Sections 27, 26



Lake Morris Property Line Structures Lucas Co - Section Lines Lucas Co - Townships

N

8012-008 Lake Morris NRCS IA-23 Construction Specification Earthfill Pictures

NRCS Construction Specification IA-23 Earthfill requires "When moving fill material from the borrow area(s) to the embankment by use of bulldozers only, the following step shall be followed: Immediately after the borrow material is pushed to the embankment, it shall be spread in horizontal lifts placed parallel to the centerline of the embankment."

