

Project Abstract: M.L. 2011
For the Period Ending June 30, 2014

PROJECT TITLE: Zumbro River Watershed Restoration Prioritization
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APPROPRIATION AMOUNT: \$150,000.00

Overall Project Outcome and Results

This project identified and prioritized areas in the Zumbro River Watershed that were determined critical for restoring and protecting water quality. Studies suggested that small areas of the landscape contribute disproportionately to nonpoint source pollution. So implementation of conservation projects that focus on those areas will maximize water quality benefits and ensure efficient use of resources

Using tools like Light Detection and Ranging (LiDAR) data and other Geographic Information System (GIS) data sets, candidate sites were identified and ranked as critical areas of soil erosion and surface runoff in the watershed. In addition in-field assessment techniques were developed and documented to further evaluate these source locations.

By the conclusion of the project a number of different methods to determine priorities of those critical areas were identified by local partners. They felt that using only one method to rank and sort the sites was not a good use of the dataset. The partners wanted to be able to sort and parse the results in a number of different ways according to both resource issues and impairments present. It was not always going to be similar for each sub-watershed. In the end the final selection of sites then became approximately 205 sites with resource attribution. This would allow a number of different ways of sorting and prioritizing.

By combining the identified sites and in-field assessment techniques a set of protocols were established to determine the most appropriate BMPs needed to restore the sites to sustainable levels.

A training session was provided to SWCD and County Staff's. A Digital Terrain Analysis Manual was published and is currently posted on the ZWP web site. This will be a guide to local partners in the watershed that along with the provided data sets, allows them to create their own priority sites data.

Project Results Use and Dissemination

The datasets were used to identify priority sub watersheds within the Zumbro. These sub watersheds were prioritized in the recently revised Zumbro Watershed Comprehensive Plan. In addition the MN Board of Water and Soil Resources issued a RFI for the Targeted Watershed Demonstration Grant. This project was instrumental in identifying and defining the priority sub-

watersheds that contained the most critical sites. In addition the in-field assessment and the BMP matrix allowed us to identify the most appropriate BMPs necessary to treat the sites. With BMPs identified, typical cost helped estimate project cost and the amount and type of public assistance needed at \$1.6 M. The type and quality of the data from this project application also helped secure additional commitments from USDA NRCS for \$750,000 in EQIP funding.

The data continues to be used by county water planners in the development and revisions of County Water Plans. The GIS data sets are currently posted on an ftp site maintained by Barr Engineering. All county water planners and SWCD staff have access to the site. Because of the sensitive nature of the data access is limited to those staff persons at this time.

Project information was disseminated to project partners on an ongoing basis (usually quarterly to semi-annually) through meetings and presentations arranged by Zumbro Watershed Partnership in Rochester. In addition, individual meetings were held with the SWCD and NRCS staff in the Olmsted, Dodge, Wabasha and Goodhue County offices to convey our findings and solicit feedback on the development of guidance for assessing BMP suitability for various sites, based on agroecoregion location and site characteristics. A similar meeting was held with Rochester staff to discuss BMP priorities for urban and suburban applications. The digital terrain analysis manual content was disseminated to the project partners through a training session in Rochester.

The Zumbro Watershed Partnership project partners were trained in the protocols provided in the digital terrain analysis manual so they can apply this process in the future for identifying critical source areas at alternatives scales, and/or as new information becomes available they can monitor changing conditions to update the list of priority projects as necessary. Work relating to the project has been published in two manuals and the critical source areas identified throughout the watershed during the project have been stored in a GIS database, along with the background data used in the decision-making, for shared use by the project partners.