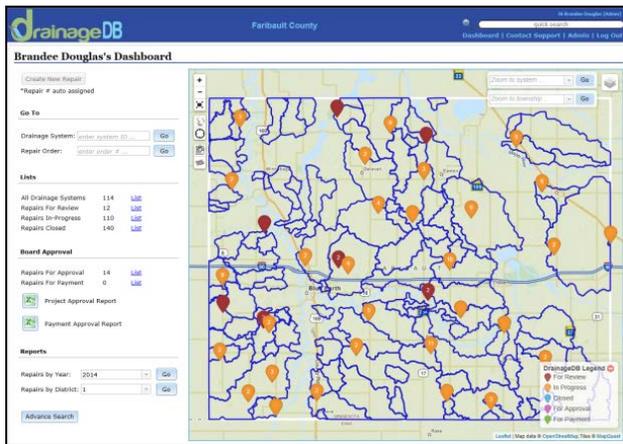




Stepping into the Future: Technology Makes a Difference for the Faribault SWCD

July 2014 Snapshots

Inspecting drainage systems? There's an app for that. Faribault County Soil and Water Conservation District's new Drainage System Online Management Tool was funded through the 2012 Clean Water Fund (CWF) grant that also went toward East Branch Blue Earth River Best Management Practice (BMP) Targeting Tools. The new technology is making a big difference for Faribault County and will result in improved water quality in the Greater Blue Earth River Watershed.



Drainage DB improves the process of collecting, organizing, evaluating, and tracking inspection data.

Drainage Authorities are required by state statute to track maintenance of drainage systems and conduct annual inspections to identify violations. Regular inspection of drainage systems can also help to identify potential water quality issues before they become major problems. Prior to 2012, drainage inspectors were using printed aerial photos to mark repair or violation locations while in the field. The process was similar for tracking maintenance and all activities were documented on paper to be filed away. The county also recognized the fact that there is increased pressure on water quality enhancements while landowners are looking for drainage improvements. Staff needed a better way to plan, collect, document, summarize, and analyze system condition, repair needs, violations, and potential BMPs for the overall goal of protecting and improving water quality.

To make drainage management, including the inspection process, more efficient and cost-effective, the Faribault County SWCD created "Drainage DB." Drainage DB has the recipe for better data management and is a one stop web-based drainage management portal. Drainage DB allows the county to better manage information and be proactive on responding to drainage and water quality issues. Another advantage is that it allows county auditors and the Drainage Authority instant access to the data, providing more transparency and better-informed decision making.

Other counties have taken note, and some are beginning to try out the new technology. In 2014, on behalf of multiple counties statewide, the Faribault County SWCD began enhancing Drainage DB to not only include a streamlined inventory of maintenance activities and repair inspections, but also add the capacity to complete comprehensive annual inspections and create a mobile inspection app for easy data collection on a smartphone or tablet. The new technology will make annual inspection work more organized and efficient, but also more accurate.

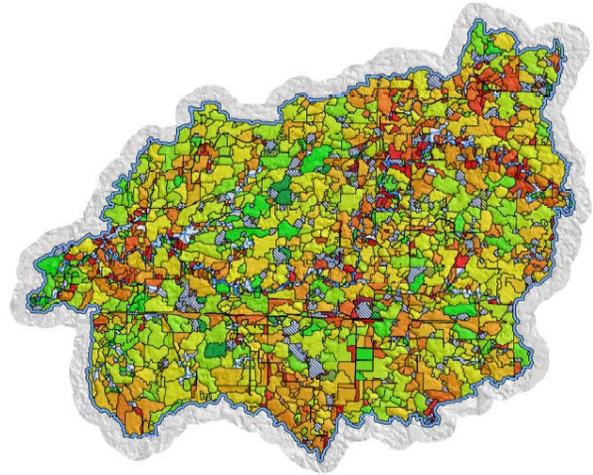


"Inspectors can collect attribute data and mark the exact GPS location by taking a photograph of the site," said Brandee Douglas of the Faribault County SWCD. All data collected is automatically synced to Drainage DB which will then have the ability to generate automated reports, notices, or export the GIS data. Data gathered will assist staff and the Drainage Authority to drive implementation of water quality practices and

repairs.

In addition to the Drainage DB, Faribault County SWCD also applied part of the CWF grant toward using advanced GIS techniques to develop a strategic plan for improving water quality through BMP implementation locations in a 117 square mile subwatershed of the East Branch Blue Earth River. Implementation of the project is in the beginning stages. Using targeting tools, combined with field inspection data, the SWCD is determining which areas of the watershed are priorities for improvement on a drainage system scale.

The SWCD is just completing the first phase of Multipurpose Drainage Management Plans in four watersheds based on field and computer analysis. These plans help to identify options for landowners on a drainage system scale that provide both private drainage and public water management benefit. Future plans in the process include producer participation, marketing, and securing outside sources of funding for implementation of strategically placed BMPs on a drainage system scale.



The SWCD is using targeting tools in the East Branch Blue Earth River subwatershed to help determine potential projects that can be implemented for sediment reduction.