USDA-NRCS Investments Highlight Growing Role of Agricultural Water Management

Keegan Kult
Executive Director
Agricultural Drainage Management Coalition

New federal investments in drainage water recycling, water storage, and smart drainage practices signal growing recognition of water management as a critical component of agricultural production, conservation, and farm resilience.

Recent USDA-Natural Resources Conservation Service (NRCS) funding announcements highlight an important opportunity for the agricultural drainage industry: water management is increasingly being recognized as an essential component of crop production and conservation delivery.

Michigan State University was awarded nearly $2 million through the Conservation Innovation Grants (CIG) program to advance drainage water recycling across four states, while a Minnesota Board of Soil and Water Resources-led Regional Conservation Partnership Program (RCPP) project received $10 million to expand water storage, soil water management, and smart drainage practices.

Together, these projects demonstrate the importance of advancing both the science behind agricultural water management and the practical implementation of practices on the farms and for the watersheds.

Michigan State University Awarded $1.95 Million for Multi-State Drainage Water Recycling Project

Michigan State University was awarded $1,945,735 through the FY 2026 NRCS Conservation Innovation Grants program for its project, Keeping Water on the Farm: A Multi-State Demonstration of Drainage Water Retention and Reuse for Performance and Adoption.

The project will involve partners from Michigan, Ohio, North Carolina, and Iowa, with Michigan serving as the lead state.

The project focuses on developing decision-support and suitability tools to help producers and conservation professionals evaluate where and how drainage water recycling (DWR) systems can be implemented. These tools will address several important considerations, including:

- Site suitability and design: Developing tools to guide the siting, design, and implementation of drainage water recycling systems
- Hydrologic performance: Evaluating how these systems perform in managing water and meeting on-farm water needs
- Economic performance: Improving the ability to evaluate the economic considerations and potential benefits of drainage water recycling
- Nutrient management: Enhancing an existing model to simulate nitrogen fate and transport in drainage water recycling systems

Ultimately, the project aims to reduce the technical, economic, and knowledge barriers that currently limit adoption of drainage water recycling.

This investment is particularly important as producers face increasing interest in managing both excess water and periods of water shortage. Drainage water recycling provides an opportunity to capture and store water that would otherwise leave the field through drainage systems, making it available for supplemental irrigation when needed.

Developing better tools to evaluate system performance, economics, and suitability will be important in helping producers and conservation professionals make informed decisions

The Michigan State University award represents a significant investment in advancing the understanding and adoption of drainage water recycling, with research and demonstration efforts spanning several important agricultural regions.

Minnesota Receives $10 Million for Water Storage and Soil Water Management

Another important investment for the conservation drainage industry comes through the FY 2026 Regional Conservation Partnership Program project selections.

The Minnesota Board of Water and Soil Resources (BWSR) will lead a $10 million project titled Water Storage and Soil Water Management for Healthy and Productive Agricultural Watersheds.

The project is designed to help protect the Mississippi River Basin by working with farmers and local partners to improve soil health, store more water, and create wildlife habitat.

Key components include:

- Construction of water storage basins
- Wetland restoration
- Implementation of smart drainage practices
- Improved soil water management

The project is expected to directly benefit hundreds of Minnesota producers while providing broader water quality and landscape benefits throughout the region. The funding will extend BWSR's ongoing state-led water storage program which can help improve the performance of public ditch systems for farmers.

Of particular interest to the agricultural drainage community is the project's recognition of smart drainage practices as part of a broader watershed management strategy. The project incorporates drainage and water storage into an integrated approach to managing water across agricultural landscapes to improve agronomic and environmental performance. This approach reinforces the importance of considering water quantity and water quality together.

Water Management Is Foundational to Agricultural Conservation

The recent NRCS investments reinforce an important message for the agricultural industry: effective water management is foundational to both agricultural production and conservation.

Agricultural drainage has traditionally been viewed primarily to remove excess water from fields. However, the expanding use of conservation drainage practices demonstrates that drainage infrastructure can also serve as a foundation for managing water more intentionally.

Practices such as drainage water management, saturated buffers, denitrifying bioreactors, drainage water recycling, and constructed wetlands provide opportunities to build conservation benefits into existing agricultural water management systems.

These practices address different resource concerns, but they share an important underlying requirement: understanding and managing water movement across the landscape.

As producers face changing precipitation patterns, tighter planting windows, increased variability in growing conditions, and continued expectations for improved water quality, the ability to manage water effectively will become increasingly important.

The recent CIG and RCPP awards are encouraging examples of federal programs recognizing that opportunity. They also demonstrate the value of connecting research, practical tools, technical assistance, and on-the-ground implementation.