IMPACT REPORT

The numbers and stories behind the North Central Region Water Network
Enhancing Connectivity
• 83% of project team members increased their contacts and connections with out-of-state experts a ‘large’ or ‘moderate’ extent

Building Strong Teams
• 89% of project team members felt their quality of experience on the team was ‘good’ or ‘excellent’

Diversifying Funding
• 69% of project team members felt they were ‘somewhat’ or ‘very’ well positioned to apply for additional funding
• Network initiatives reported receiving over $1,707,739 in additional funds for their projects
• Initiatives reported a 49% success rate in receiving additional funding

Developing Extension and Front-line Resources
• Developed an outreach kit on reducing nitrate runoff
• Designed curriculum for conservation precision tools, nutrient management, and riparian ecosystems
• Established the Soil Health Nexus website as a hub for soil health research, outreach, and resources
• Generated summative publications on manure, soil health, and water quality
• Hosted monthly webinars featuring over 30 educators and researchers reaching nearly 1,500 attendees

Generating Benefits to People and Natural Resources
• Reached 331 professionals who influence over 48,000 farmers with soil health information
• Trained 182 professionals in nutrient management, riparian ecosystems, and conservation precision. These professionals shared this information with over 2,500 additional stakeholders
• Strengthened relationships among tribal colleges and universities, state land-grants, and state and federal agencies
• Shared resources on the ten most effective ways to reduce nitrate loss with over 2,250 users

*Data based on initiatives funded from October 2015 to August 2017.
Understanding and Advancing the State of Science

Manure and Soil Health

Soil health is critically linked to issues such as nutrient losses to surface water, climate change, erosion, and ultimately farm profitability. Research and field observations have demonstrated that carefully managed manure applications can improve soil quality while minimizing environmental and social risks.

VIRTUAL ROUNDTABLE DISCUSSIONS

Extension and USDA National Resources Conservation Service (NRCS) professionals held four virtual roundtable discussions on manure and key soil topics featuring subject-matter experts, farmers, consultants, and producer-led groups sharing research, trends, and experiences.

EXTENSION PUBLICATIONS

The project team also produced eight new extension publications synthesizing and interpreting the latest science on linkages between manure management, soil health, and water quality. These publications provide university educators and specialists, farmers, farm advisors, and community decision-makers with the latest research in a format they can use.

COMMUNICATION CONDUIT

The newly developed Soil Health Nexus website hosts team resources and the group’s blog which publishes monthly articles on manure and soil health best practices. Currently, the blog is distributed to over 200 university and agency staff each month via an email newsletter.

From Education to Impact

331 participants joined the virtual roundtable discussions

56% of participants were ‘likely’ or ‘very likely’ to make changes or recommend changes in manure and soil health practices after attending the roundtables

48,000 FARMERS

Cumulatively, these participants influence over 56% of participants were ‘likely’ or ‘very likely’ to make changes or recommend changes in manure and soil health practices after attending the roundtables
Building Collaboration

State and Tribal Land-grant institutions in the North Central Region

There are 20 Tribal Colleges and Universities (TCUs) in the North Central Region. A recent First Americans Land-Grant Consortium (FALCON) member survey showed there is a strong interest among these institutions to work on water-related projects. While there are ample opportunities for partnership, past collaboration between state land-grants and TCUs has been limited and highly localized.

TRIBAL WATER SUMMIT

In May 2017, state land-grants, TCUs, and partners including FALCON convened a Tribal Water Summit at Haskell Indian Nations University with seven TCUs, six state land-grants, and state and federal agency personnel in attendance. Together, they combined their perspectives to identify priority issues surrounding water, share past collaboration successes and challenges, and determine future funding and collaboration opportunities.

Summit Participants

- 78% increased their understanding of past successful collaboration between TCUs and state land-grants
- 100% increased their understanding of future opportunities for collaboration a ‘large’ or ‘medium’ extent
- 92% developed connections with out-of-state experts who they could consult on water-related issues
- +80% increased their understanding of water-focused research and outreach happening across the region at TCUs and state land-grants a ‘large’ or ‘medium’ extent

northcentralwater.org/tribal
Soil erosion and agricultural runoff are two of the largest problems facing the agricultural industry today. Given the continental scale of these issues, it is critical conservation practices are implemented where they can have the most impact.

The Daily Erosion Project (DEP) and the Agricultural Conservation Planning Framework (ACPF) are two precision conservation tools that estimate daily rainfall and soil erosion, visually display key data, and help farmers and conservation professionals identify appropriate management solutions for high risk areas.

**ADDRESSING THE CHALLENGE**

USDA Agricultural Research Service (ARS) personnel, university researchers, and Extension professionals added 552 hydrologic unit code (HUC) 12 watersheds in 31 counties to the ACPF and DEP databases and trained nearly 130 attendees from nine states to use these tools using a newly developed hands-on curriculum. Overall, workshop attendees noted they were likely to share the knowledge they gained on these tools with over 1,300 additional stakeholders.

**ACPF IN ACTION**

To date, ACPF data has been downloaded over 2,000 times and individuals in more than 240 watersheds throughout the region have reporting using ACPF. In addition, ACPF has been incorporated in multiple state-wide projects in Iowa including the state's nutrient reduction strategy. The project team is working to extend the ACPF database to the entire Upper Mississippi River Basin and is in the process of building an online training curriculum and website for ACPF to increase its use throughout the region.

northcentralwater.org/acpf