NORTH CENTRAL REGION
WATER NETWORK

North Central Region Water Network
Request for Applications
2019 Capacity-Building Mini Grants
Applications Due March 1, 2019

About the North Central Region Water Network

The North Central Region Water Network is a 12-state collaboration between Extension water resource professionals and university, federal, state, NGO and industry partners. The Network is funded by the North Central Region Extension Directors, based on over a decade of USDA-NIFA funded water programs, and anchored by a core team of Extension-appointed state coordinators. The Network strives to:

1. Increase connectivity and learning between university professionals and partners across a diversity of water-related disciplines and roles
2. Build the capacity of universities to address multi-state water-related issues and opportunities
3. Generate measurable economic, environmental, and social impacts in the short and long term, with a focus on the following key issues:
    a. Nutrient and manure management
    b. Sustainable water supply
    c. Climate change & adaptation
    d. Soil health
    e. Land use and development practices
    f. Aquatic invasive species prevention and management
    g. Youth water literacy and stewardship
    h. Watershed planning and leadership

The Network is providing a small number of competitive mini-grants to facilitate progress toward these goals. **For this year's request for applications, the Network will provide funding in two categories:**

1. Applications addressing opportunities and actions arising from the December 11-13 One Water Action Forum. Notes from each working session can be found on the One Water Action Forum website: https://onewaternc.org/
2. Applications addressing other water-related extension priorities in the North Central Region.

Eligibility

Lead applicants must have an Extension appointment/assignment at a land-grant institution in the North Central Region. Eligible lead institutions include: University of Illinois, Purdue University, Iowa State University, Kansas State University, Michigan State University, University of Minnesota, University of Missouri, University of Nebraska-Lincoln, North Dakota State University, The Ohio State University, South Dakota State University, and University of Wisconsin. Lead applicants may enlist co-applicants and partners from other institutions and

organizations. We strongly encourage engagement of 1890 and 1994 land-grant institutions, as well as federally designated Hispanic Serving Institutions in the North Central Region.

Purpose of this Request for Applications and Award Size

The purpose of this request for applications is to support the goals of the North Central Region Water Network. **A maximum of $60,000 is available for 2019. Proposals may be eligible for up to $15,000.** It is anticipated that four to six awards will be made through this application.

All proposals must:

1. Include applicants (project director and co-directors) from at least five states and participation from several states in the North Central Region.
2. Address North Central Region Water Network goals, including one or more of the seven key water-related issues listed above.
3. Show the potential to demonstrate and document transformative impact in water-related programming or Extension's capacity to address water-related issues.

Application Categories

Category 1: One Water Action Forum Working Session Applications – Applications in this category will draw from the opportunities, barriers, and actions identified in One Water Action Forum Working Sessions. Working Sessions address the following issues:

- Soil Health and Water
- Climate and Water
- Sustainable Water Supply
- Engaging the Next Generation of Water Stewards
- Water Infrastructure
- Watershed Management
- Diversity, Equity, and Inclusion in Water Outreach, Research, and Management
- Source Water Protection
- Nutrient Management and Harmful Algal Blooms

Category 2: Applications Addressing Other Water-Related Extension Priorities – Applications in this category will address emerging water-related issues, applied research needs, and extension programming needs.

Within both these application categories, three types of projects will be considered:

1. Planning Projects – The purpose of planning projects is to do one or more of the following:
    a. Prepare for competitive funding opportunities.
    b. Work with partners to plan Extension programs or related applied research that could be funded through contracts or other non-competitive funding mechanisms.

    c. Develop a plan for expanding a high-quality Extension program to address needs of additional states in the North Central Region.
    d. Form extension and applied research sub-hubs (teams or communities of practice) around high value topics.
2. Program Delivery Projects – The purpose of program delivery projects is to conduct new multi-state Extension programming for which a plan for multi-state work already exists.
3. Professional Development for Extension Professionals to Improve Water-Related Extension Programs – A study sponsored by the Extension Committee on Organization and Policy (ECOP) identified key characteristics of 21st Century Extension professionals by reviewing Extension job postings, surveying Extension Directors/Administrators and conducting focus groups with outstanding Extension professionals. The purpose of these projects is to enhance identified "emerging" technical skills (related to water quality and quantity issues) and support program delivery skills of Extension professionals to address a specific water quality programming need. Please see Appendix A for the list of identified emerging skills and attributes. More information on the study can be found at: The Skills and Attributes of 21st Century Extension Professionals.

Application Format and Contents

Total application pages will not exceed seven. The cover letter, budget, and letters of support will not count against the seven-page limit. Font size must be at least 12-point, with margins of at least one inch in all directions and line spacing not exceeding six lines of text per vertical inch.

Contents should include:

1. Cover page
    a. Title
    b. Date
    c. Project director and co-directors, including preferred contact information for each
    d. Whether project addresses Category 1 - One Water Action Forum Working Sessions, or Category 2 – Other Water-Related Extension Priorities
2. An approval e-mail from State Points of Contact in participating states. The e-mail does not serve as an endorsement, but as proof of prior notification
3. Abstract (400 words or less)
    a. Problem/opportunity
    b. Beneficiary audience, approach and solution
    c. Deliverables and outcomes/impacts
4. Introduction
    a. Context
    b. Problem or opportunity
5. Response
    a. Beneficiary audiences
    b. Approach/methods
    c. Alignment with water-related plans and priorities such as:
        i. Mississippi River Gulf of Mexico Watershed Nutrient Task Force and state-level nutrient strategies

    ii. Great Lakes Restoration Initiative
    iii. The Red River Basin Commission
    iv. Groundwater conservation in the High Plains aquifer
    v. Working session results from the One Water Action Forum
6. Project deliverables, timeline, outcomes/impacts, and how they relate to Network goals. Please be sure to indicate how Extension capacity to address water resource issues will be strengthened.
7. Logic model or concept map that includes:
    a. Inputs
    b. Outputs
    c. Outcomes

    Logic models should demonstrate a clear relationship between outputs and outcomes. For useful program planning and logic model information and templates, please see the University of Wisconsin-Extension Program Development and Evaluation resources. Moderate evaluation support will be provided to all successful applicants.
8. Partners and their roles, including engagement of the following if applicable to the project:
    a. Multi-state committees engaged in research and extension activities pertinent to the project. See Appendix B for a list of multi-state committees engaged in activities that are either directly or indirectly related to water resource management. If there are no pertinent committees, please indicate this.
    b. 1890 and1994 land-grant institutions. See Appendix C for a list of 1890 and 1994 land-grant institutions in the North Central Region.
9. Resource leveraging and sustainable funding: briefly describe resources leveraged. Planning and Program Delivery Projects must also describe plans for securing resources to continue work after seed funding ends. Proposals that document at least a 1:1 cash match, or a comparable combination of cash and in-kind match will be reviewed more favorably than projects that do not document a match. Proposals that leverage non-Extension resources will be reviewed more favorably than those that rely solely on existing Extension funds (e.g. salary) as a match.
10. Literature cited
11. Budget and narrative, including cash and in-kind match (see Appendix D for budget template).
12. Letters of support from project partners and/or beneficiaries.

Proposal Submission and Notification

- Please submit your applications no later than **March 1, 2019, 5pm CT via e-mail** to:
    1. Rebecca Power: rlpower@wisc.edu
    2. Martha Martin: mlmartin3@wisc.edu
    3. Extension State Points of Contact for water in participating states.

- Include an approval e-mail from State Points of Contact for water in participating states. The e-mail does not serve as an endorsement, but as proof of prior notification.

- Use the budget template provided. If you choose to use another budget format, consult with the Regional Director (Rebecca Power, rlpower@wisc.edu) prior to submitting.
- Submit all application components, including budget and letters of support, in a single pdf file named: *Projectdirectorlastname_firstname_year.pdf* (e.g. smith_jane_2014.pdf)
- Applicants will be notified of review results no later than **March 30, 2019**.
- The allowed project period will be from the time successful applicants are notified through **March 30, 2020**.

Funds Disbursement

Successful applicants will request funds through invoices to the University of Wisconsin-Extension. Lead applicants will send invoices to Rebecca Power, North Central Region Water Network. Successful applications will not result in a formal contract or grant. Funds should be housed in a segregated account and are to be spent in accordance with federal guidelines for Smith Lever-formula funds and within the scope of the accepted budget. General purpose equipment, tuition reimbursement, and indirect costs are not allowed.

More instructions will be shared when successful lead applicants are notified.

Review Criteria

The following criteria will be used by reviewers to evaluate and select applications for funding. Criteria will be applied as appropriate to the type of application (Planning, Programming, or Professional Development).

1. To what extent will the project address one or more of the following key issues:
   a. Nutrient and manure management
   b. Sustainable water supply
   c. Climate change & adaptation to handle both flooding and drought situations
   d. Soil health
   e. Land use and development practices
   f. Aquatic invasive species prevention and management
   g. Youth water literacy and stewardship
   h. Watershed management and leadership
2. To what extent will the project support or integrate with existing multi-state plans and priorities, such as those associated with:
   - Mississippi River Gulf of Mexico Watershed Nutrient Task Force and state-level nutrient strategies
   - Great Lakes Restoration Initiative
   - The Red River Basin Commission
   - Groundwater conservation in the High Plains aquifer
   - Working session results from the One Water Action Forum
3. To what extent will the project increase multi-state connectivity and learning among university professionals and partners?
4. To what extent will the project strengthen existing or create new collaborations between university researchers and extension educators?

5. To what extent will the project build the capacity of universities to address multi-state water-related issues and opportunities, including:
    - Expanding successful extension programs to additional states
    - Generating new funding for extension programming through competitive grants, contracts for services, or fee-based programs
4. To what extent will the project leverage institutional and financial resources outside of the university in the short and long term? Proposals that document at least a 1:1 cash match, a 3:1 in-kind match, or a comparable combination of cash and in-kind match will be reviewed more favorably than projects that do not document a match. Proposals that leverage non-Extension resources will be reviewed more favorably than those that rely solely on existing Extension funds (e.g. salary) as a match. Match is not considered formal match and is not required to submit.
6. To what extent will the project generate measurable economic, environmental, and social impacts in the short and long term? Special consideration will be given to projects that have the potential for transformative impact on water-related programming or Extension's capacity to address water-related issues.

Appendix A

Selected "Emerging" Skills and Attributes of 21st Century Extension Professionals*

1. Ability to conduct robust needs assessments (engage stakeholders), focus on key emerging issues, and prioritize and align programming.
2. Ability to engage audiences representing emerging demographics, and strengthen our cultural competency.
3. Ability to facilitate co-learning and co-discovery of new knowledge using high-level facilitation and conflict resolution skills and creative problem-solving strategies or processes.
4. Ability to define and pursue Extension scholarship, including the ability to:
    a. Develop innovative, engaging learning experiences using a variety of methodologies including technology
    b. Evaluate innovative learning methodologies and assess effectiveness with current and new audiences
    c. Conduct applied, translational research to facilitate knowledge transfer
    d. Conduct robust impact assessments
5. Ability to develop and apply innovative resource generation strategies (beyond grants and fee revenue).
6. Ability to market and brand extension programs and communicate the public value of those programs.
7. Ability to contribute high emotional intelligence and collaboration skills to extension programs and partner-led efforts.

* More information on the study can be found at: The Skills and Attributes of 21st Century Extension Professionals.

Appendix B

Multi-state Research Projects and Committees Applicable to
North Central Region Water Activities Organized by Region

Projects are organized into two main categories: Direct and Indirect. Direct projects directly relate to water management and issues in the project's focus. The indirect classification means water is not the center issue at study but that water impacts are part of the study in some aspect either large or small.

List of committee types and abbreviations:

Committee Types	Abbreviation
Multi-state Research	NC, NE, S, or W only
Coordinating Committee	CC
Development Committee	DC
Extension and Research Activity	ERA

Projects that **directly** apply to water management organized by region:

Project Number	Title	Link to Participants Directory
North Central (NC)		
NC1182	Nitrogen Cycling, Loading, and Use Efficiency in Forage-Based Livestock Production Systems (formerly NCT-196 and NC-189)	https://www.nimss.org/projects/view/mrp/outline/16696
NC1186	Water Management and Quality for Ornamental Crop Productions and Health	https://www.nimss.org/projects/view/mrp/outline/16856
NC1187	The Chemical and Physical Nature of Particulate Matter Affecting Air, Water and Soil Quality (NCR174)	https://www.nimss.org/projects/view/mrp/outline/16996
NC1189	Understanding the Ecological and Social Constraints to Achieving Sustainable Fisheries Resource Policy and Management	https://www.nimss.org/projects/view/mrp/outline/17897
NC1190	Catalysts for Water Resources Protection and Restoration: Applied Social Science Research	https://www.nimss.org/projects/view/mrp/outline/17900
NCERA217	Drainage design and management practices to improve water quality	https://www.nimss.org/projects/view/mrp/outline/16216
NCDC231	Collaborative for Research on Food, Energy, and Water Education	https://www.nimss.org/projects/view/mrp/outline/18363
Northeast (NE)		
NE1545	Design, Assessment, and Management of Onsite Wastewater Treatment Systems: Addressing the Challenges of Climate Change	https://www.nimss.org/projects/view/mrp/outline/17496
NE1438	Hydropedology of Vernal Pool Systems	https://www.nimss.org/projects/view/mrp/outline/16317
NE1544	Dairy Production systems: C, N, and P management for production, profitability and the environment	https://www.nimss.org/projects/view/mrp/outline/17536

South (S)		
S1063	Quantification of best management practice effectiveness for water quality protection at the watershed scale	https://www.nimss.org/projects/view/mrp/outline/16016
SERA43	Southern Region Integrated Water Resources Coordinating Committee	https://www.nimss.org/projects/view/mrp/outline/17556
SERA46	Framework for Nutrient Reduction Strategy Collaboration: the Role for Land Grant Universities	https://www.nimss.org/projects/view/mrp/outline/16716
WEST (W)		
WERA103	Nutrient Management and Water Quality	https://www.nimss.org/projects/view/mrp/outline/17136
WERA1012	Managing and Utilizing Precipitation Observations from Volunteer Networks	https://www.nimss.org/projects/view/mrp/outline/15498
W3128	Scaling Micro-irrigation Technologies to Address the Global Water Challenge	https://www.nimss.org/projects/view/mrp/outline/16476
W3170	Beneficial Reuse of Residuals and Reclaimed Water: Impact on Soil Ecosystem and Human Health (formerly W2170)	https://www.nimss.org/projects/view/mrp/outline/15936
W3188	Soil, Water, and Environmental Physics Across Scales	https://www.nimss.org/projects/view/mrp/outline/16636
W3190	Management and Policy Challenges in a Water-Scarce World	https://www.nimss.org/projects/view/mrp/outline/16396

Projects that **indirectly** apply to water management organized by region:

Project Number	Title	Link to Participants Directory
North Central (NC)		
NC1034	Impact Analyses and Decision Strategies for Agricultural Research	https://www.nimss.org/projects/view/mrp/outline/17978
NC1178	Impacts of Crop Residue Removal for Biofuel on Soils (formerly NC1017)	https://www.nimss.org/projects/view/mrp/outline/16096
NC1179	Food, Feed, Fuel, and Fiber: Security Under a Changing Climate	https://www.nimss.org/projects/view/mrp/outline/16256
NC1186	Water Management and Quality for Ornamental Crop Production and Health	https://www.nimss.org/projects/view/mrp/outline/16856
NC1187	The Chemical and Physical Nature of Particulate Matter Affecting Air, Water and Soil Quality	https://www.nimss.org/projects/view/mrp/outline/16996
NC1194	Nanotechnology and Biosensors	https://www.nimss.org/projects/view/mrp/outline/17756
NC1195	Enhancing nitrogen utilization in corn based cropping systems to increase yield, improve profitability and minimize environmental impacts (NC1032/210)	https://www.nimss.org/projects/view/mrp/outline/17977
NCCC211	Cover crops to improve environmental quality in crop and biofuel production systems in the Great Lakes and Upper Mississippi basins	https://www.nimss.org/projects/view/mrp/outline/17036
NCERA13	Soil Testing and Plant Analysis	https://www.nimss.org/projects/view/mrp/outline/18176
NCERA59	Soil Organic Matter: Formation, Function and Management	https://www.nimss.org/projects/view/mrp/outline/18036
NCERA180	Precision Agriculture Technologies for Food, Fiber, and Energy Production	https://www.nimss.org/projects/view/mrp/outline/18056
NCERA217	Drainage Design and Management Practices to Improve Water Quality	https://www.nimss.org/projects/view/mrp/outline/16216

NCERA221	Turfgrass and the Environment (was NCERA192)	https://www.nimss.org/projects/view/mrp/outline/17899
NCERA3	Soil and Landscape Assessment, Function and Interpretation	https://www.nimss.org/projects/view/mrp/outline/15996
North East (NE)		
NE1441	Environmental Impacts of Equine Operations	https://www.nimss.org/projects/view/mrp/outline/16316
NE1335	Resource Management in Commercial Greenhouse Production	https://www.nimss.org/projects/view/mrp/outline/15416
NE1710	Improving Forage and Bioenergy Crops for Better Adaptation, Resilience, and Flexibility	https://www.nimss.org/projects/view/mrp/outline/17116
NECC1312	Northeast Coordinating Committee on Soil Testing	https://www.nimss.org/projects/view/mrp/outline/15896
NE1442	Poultry Production Systems and Well-being: Sustainability for Tomorrow	https://www.nimss.org/projects/view/mrp/outline/15899
NE1749	Enhancing Rural Economic Opportunities, Community Resilience, and Entrepreneurship	https://www.nimss.org/projects/view/mrp/outline/18429
NRSP003	The National Atmospheric Deposition Program (NADP)	https://www.nimss.org/projects/view/mrp/outline/16416
South (S)		
S1032	Animal Production Systems: Synthesis of Methods to Determine Triple Bottom Line Sustainability from Findings of Reductionist Research	https://www.nimss.org/projects/view/mrp/outline/15636
S1054	Bio-based Fibrous Materials and Cleaner Technologies for a Sustainable and Environmentally Responsible Textile Industry	https://www.nimss.org/projects/view/mrp/outline/14296

S1055	Biology, impact, and management of soybean insect pests in soybean production systems	https://www.nimss.org/projects/view/mrp/outline/14636
S1069	Research and Extension for Unmanned Aircraft Systems (UAS) Applications in U. S. Agriculture and Natural Resources	https://www.nimss.org/projects/view/mrp/outline/18317
SERA17	Organization to Minimize Nutrient Loss from the Landscape	https://www.nimss.org/projects/view/mrp/outline/15716
SERA25	Turf (IEG-16)	https://www.nimss.org/projects/view/mrp/outline/15836
WEST (W)		
W3045	AGROCHEMICAL IMPACTS ON HUMAN AND ENVIRONMENTAL HEALTH: MECHANISMS AND MITIGATION	https://www.nimss.org/projects/view/mrp/outline/17296
W3147	Managing Plant Microbe Interactions in Soil to Promote Sustainable Agriculture	https://www.nimss.org/projects/view/mrp/outline/14876
WERA102	Climate Data and Analyses for Applications in Agriculture and Natural Resources	https://www.nimss.org/projects/view/mrp/outline/18289
WERA1008	Rangelands West Partnership	https://www.nimss.org/projects/view/mrp/outline/18236
WERA1014	Intensive Pasture Management for Sustainable Livestock Production in the Western US	https://www.nimss.org/projects/view/mrp/outline/15556

Appendix C
1890 and 1994 Land-grant Institutions in the North Central Region

1890 Institutions

Lincoln University**,** Jefferson City, MO
Central State University, Wilberforce, OH

1994 Institutions

Bay Mills Community College, Brimley, MI
Cankdeska Cikana Community College, Fort Totten, ND
College of Menominee Nation, Keshena, WI
Fond du Lac Tribal and Community College, Cloquet, MN
Nueta Hidatsa Sahnish College (formerly Fort Berthold Community College, New Town, ND
Haskell Indian Nations University, Lawrence, KS
Keweenaw Bay Ojibwa Community College, Baraga, MI
Lac Courte Oreilles Ojibwa Community College, Hayward, WI
Leech Lake Tribal College, Cass Lake, MN
Little Priest Tribal College, Winnebago, NE
Nebraska Indian Community College, Macy, NE
Oglala Lakota College, Kyle, SD
Saginaw Chippewa Tribal College, Mt. Pleasant, MI
Sinte Gleska University, Mission, SD
Sisseton Wahpeton Community College, Agency Village, SD
Sitting Bull College, Fort Yates, ND
Turtle Mountain Community College, Belcourt, ND
United Tribes Technical College, Bismarck, ND
White Earth Tribal and Community College, Mahnomen, MN

Appendix D

North Central Region Water Network Budget Template

To access the budget template, please see: http://northcentralwater.org/?p=2131