



Watershed Management

Developing Leadership Capacity in Collaboration and Civic Engagement for Collective Action

Background

Non-point sources of pollution are considered the most common cause of impairment to water quality in the U.S. (USEPA, 2016). In the region served by the North Central Region Water Network, nutrient and sediment runoff from agricultural land is associated with lake eutrophication, including harmful algal blooms in the western Lake Erie basin, and is considered a significant contributor to the hypoxic zone in the Gulf of Mexico.

Collaborative watershed management has been identified as a key solution in addressing non-point pollution of surface waters in the United States. Collaborative watershed management engages key stakeholder groups in identifying water quality impairments, develops water quality goals, and works collaboratively on strategies and actions to address the impairments (USEPA, 2005). Civic engagement and collective action are frequently cited as core elements of the collaborative watershed management process, but many watershed leaders lack the knowledge and skills to effectively engage stakeholders.

The land-grant universities in the North Central Region can play a valuable role in building the capacity of watershed leaders to engage watershed stakeholders in collaborative processes.

Goals

The purpose of this project was to strengthen the capacity of the land-grant universities in the North Central Region to provide educational programs and resources in the social dimensions of watershed management for watershed leaders. Specifically, the project aimed to:

- Identify the knowledge and skills watershed leaders in the North Central Region need to effectively lead civic engagement and collaboration.
- Create a strategy to support Extension program development to address the need for educational curriculum development on collaborative leadership and civic engagement.

Addressing the Challenge

This project sought to assess the need for educational programs and materials related to civic engagement and collaboration for watershed management through a three-step process.

- A literature review was conducted to identify key characteristics of effective watershed leaders in the areas of collaboration and civic engagement.
- Project team members worked to identify and characterize existing watershed and lake leadership programs and programs emphasizing civic engagement and collaborative processes.

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- Team members organized the findings from the literature review to create a conceptual framework for collaborative and engaging watershed leadership. This framework was then used to assess current programs educating watershed leaders.

Program Outcomes and Impacts

A comprehensive literature review was conducted and eighteen topics emerged. From these eighteen topics, a cohesive conceptual framework emerged with four overarching themes that were identified as core values associated with civic engagement and collaboration for watershed management.

1. Processes for dialogue and deliberation advanced democratic principles
2. Diversity of stakeholders and participants is valued
3. Collaborative learning is supported
4. Structures and processes are in place to manage conflict

These themes lead to the creation of a catalog of knowledge, attitudes, skills, and aspirations (KASA) required by watershed leaders to effectively lead civic engagement and collaborative processes.

The team also identified educational programs offered throughout the North Central Region that targeted watershed and lake management leaders. In total, eleven programs were identified and a survey was distributed

to program contacts to assess which civic engagement and collaboration topics were addressed in each program.

Analysis of the survey data allowed researchers to identify examples of training programs that addressed each of the civic engagement and collaborative topics identified through the developed framework. A sub-team was created to collect additional information from program contacts and allow programs to share resources addressing each identified KASA. Together, these resources allow program leaders to rely on research-based best practices and leverage existing materials to ensure their programs equip watershed leaders to effectively lead civic engagement and collaborative processes moving forward.

References

U.S. Environmental Protection Agency. 2016. What is nonpoint source? Retrieved from <http://www.epa.gov/polluted-runoff-nonpoint-source-pollution/what-nonpoint-source>

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The North Central Region Water Network comprises 12 Land-grant colleges and universities:

