



**Wisconsin Wetlands Association Recommendations to the
Speaker's Water Quality Task Force**

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“We will never fix Wisconsin’s water quality problems unless we get control of our water movement”

~Tracy Hames, Executive Director, Wisconsin Wetlands Association

In 1989 I moved from Wisconsin to the arid west where I spent nearly 25 years running public hunting programs and overseeing large-scale, agricultural-based wetland and floodplain restoration projects in intensively irrigated landscapes. In the eight years since I returned home to Wisconsin, I have traveled extensively across the state reacquainting myself with Wisconsin’s great landscapes, the wonderful people who work the land, and those dedicated individuals who work to protect and restore Wisconsin’s land and water. I have been aided in this exploration by seasoned staff who have helped me understand how our state and local laws and programs support and impede land and water resource management and restoration.

To be honest, I was initially puzzled by what I’d seen back home in Wisconsin. In the arid west, every drop of water was accounted for. This was because water was scarce and thus highly valued. We had gauges on our rivers, creeks, irrigation ditches, in the ground, - everywhere. We knew where our water came from, where it went, how long it stuck around, and what happened when it rained (or snowed) or didn’t rain (or didn’t snow).

Out there, when we had a water-related problem to solve we always started by looking at the flow – how water was moving through the landscape. Addressing our water movement issues involved restoring wetlands, reconnecting floodplains to adjacent streams, and reconnecting surface water and groundwater connections. And it was all done in a manner informed by watershed-scale hydrology that made sense in a cultural and economic landscape of ranches and farms. Site-specific management practices were, of course, also widely utilized, but it was understood that these practices helped treat degraded conditions rather than address root causes.

As I arrived back in Wisconsin I found the reverse to be true here. Partially because of our luxury of an abundance of water, we’ve gotten away with paying little attention to watershed hydrology or the health of our hydrologic systems. Instead we’ve invested overwhelmingly in site-specific conservation practices such as invasive species control and cover crops without understanding or addressing the underlying hydrologic conditions that contribute to our water

quality and runoff management problems. Because of our reliance on bandage approaches to treating watershed symptoms, the overall health of our watersheds and waters continue to degrade in spite of many years of work and much investment.

At WWA, we see simple and effective, but often overlooked, opportunities to fix watershed hydrology to reduce runoff and erosion everywhere we look. What we don't see is a community of professionals seeking out these restoration opportunities or a robust set of policies and programs to encourage implementation of watershed-based hydrologic solutions.

Given the current state and ongoing decline of our waters, it's long past time to correct this.

What's needed?

To address the root causes of our water quality issues, the state of Wisconsin needs to establish priorities and programs that support and fund **watershed-scale** hydrologic assessment to guide action and help evaluate the costs and benefits of restoration projects that re-establish wetland storage and infiltration and floodplain connectivity.

How is that different than what's happening now?

Currently, Wisconsin has several programs that support watershed-scale work, but NONE of them focus on the health of the hydrologic system. WDNR's Targeted Runoff Management grant program and DATCP's Producer Led grant program are two high-profile examples. Both support implementation of practices at the watershed scale, but neither require or provide incentives to restore hydrologic function. What's more common is a piecemeal approach to installing practices, largely designed to address site-specific rather than system-scale problems. We spend an inordinate amount of money practicing random acts of conservation, without acknowledging the systemic conditions that underlie our water challenges.

That's not to say there isn't some great work happening under these programs and a lot of really committed people involved. There definitely is. But without fully diagnosing the health of our hydrologic systems, our site-specific, isolated efforts addressing runoff management practices (and invasive species management, and fisheries management, and wildlife management, etc...) will never be effective at a landscape scale. We need to understand how to apply the right amounts of the right practices in the right locations to heal our water and watersheds.

While there are any number of agencies who would benefit from collaborations where these types of assessments occur, we've looked and have found no dedicated programs or staff whose job it is to evaluate and improve watershed-scale hydrologic health by reconnecting streams to floodplains or re-establishing wetland function.

What will it take to establish a hydrologic restoration program?

Wisconsin needs a new way of thinking about water quality and runoff management, one that evaluates and measures improvements at the watershed scale and supports innovation at the landscape scale.

Under current frameworks this is difficult to do because we prioritize water quality spending where our models can definitively predict a site-specific nutrient load reduction. These models

do not account for the aggregate benefits that can be accrued from many small practices across a drainage basin. Better data and decision support tools are needed, as is flexibility in how we allocate limited funds to support experimental designs and practices.

Further, because wetland and floodplain restoration practices are not widely employed as a runoff tool in Wisconsin, knowledge of where or how to evaluate and implement strategic wetland restoration projects is also low. In practice, our regulatory frameworks make it difficult and very expensive to secure permits to restore floodplain wetlands or reconnect wetland and stream hydrology.

Training and technical support is needed to ensure our regulators, land managers, restoration practitioners, farmers, and others better understand watershed-based wetland restoration opportunities and techniques.

Dedicated project funding is also needed to establish demonstration projects, research sites, cost-share dollars, and incentives to encourage and increase the use of hydrologic restoration practices.

Who needs to be involved?

In the course of these hearings, you've heard from many public agencies and non-governmental organizations that are actively involved in runoff management and land and water improvement efforts. The job is too big for any one agency to take on. It will require the active participation and collaboration of many of these entities, including, but not limited to: UW Extension (i.e., WGNHS, UW Discovery Farms), DNR, DATCP, WEM, Counties & Municipalities, private landowners, particularly farmers and farmer led groups, conservation organizations, and citizen-led watershed groups.

What does this look like and where do we start?

In this section, we'd like to paint a picture of the various roles different agencies could and should be playing to restore Wisconsin's hydrologic health. *WWA has been exploring many of these possibilities with the following agencies, and is available to help translate these ideas into statutory language.*

UW Extension - Wisconsin Geologic and Natural History Survey:

- Expand their mandate to study the hydrologic conditions of wetlands and rivers to inform hydrologic restoration program development and actions.
- Fund pilot projects to develop local data and design assessment methods and decision-support tools.
- Fund the planning, installation, and long-term maintenance of stream gauges strategically placed in watersheds to measure flows and facilitate the understanding of water movement across our degraded watersheds.
- Coordinate these activities with those who need the data to inform efforts of addressing watershed-scale hydrologic health.

UW Discovery Farms:

Fund pilot projects with Discovery Farms and appropriate partners to develop tools, techniques, and monitoring protocols for on-farm wetland restoration informed by watershed needs. *WWA and UWEX are currently exploring possibilities.*

These include:

- Funding for wetland research and/or demonstration projects.
- Funding to develop/deliver training focused on landowners, agronomists, farmer led watershed groups, and drainage districts to promote on-farm and landscape scale water management.

DATCP/Counties:

- Require assessment of hydrologic condition and strategic restoration as part of Land & Water Resource Management Planning. *WWA has language prepared.*
- Provide to counties hydrologic assessment data/decision support tools, funding, and training from WDNR/WGNHS.
- Provide incentives for farmer led watershed councils to incorporate hydrologic assessment and restoration pilot projects into their activities.
- Fund programming/collaborations regarding on-farm water management.

DNR:

- Commission an evaluation/audit of WDNR programs (water quality, watershed management, fisheries and wildlife management) for opportunities to integrate watershed scale hydrologic condition assessment and landscape scale hydrologic restoration priorities into Department activities.
- Streamline approvals for wetland/floodplain/stream restoration work and hire at least one engineer with training and background in hydrologic restoration to support state/private restoration activities. *WWA is currently working with legislators to develop language for this.*
- Require and provide support for watershed-informed hydrologic management of state-owned lands. *For example, WWA has been involved with DNR and others addressing this on the Little Plover River Fisheries Management Area.*

Wisconsin Emergency Management:

- Establish an incentive program to provide pre-disaster mitigation assistance to communities to identify and implement pre-disaster mitigation strategies focused on hydrologic restoration.
- Support development of training programs to help local governments learn about and pursue funding opportunities to incorporate hydrologic restoration strategies into Hazard Mitigation Plans
- Establish a flood control grant program for municipalities/individuals for nature-based solutions. *WWA has been working with legislators to secure funding for wetland flood reduction demonstration projects in Ashland County (AB266, SB252).*

CONCLUSION

WWA's is currently hard at work promoting and advancing watershed-scale hydrologic approaches.

We're:

- Helping lead pilot collaborations for watershed-scale hydrologic assessment and implementation in the Little Plover River watershed and Lake Superior Basin.
- Building capacity and partnerships for research addressing hydrologic restoration to help develop cost-effective water quality and flood mitigation techniques. These include new projects funded by FEMA and EPA.
- Providing program development, training and technical support for field based wetland learning experiences for policy makers and practitioners.

We cannot solve our water quality issues if we do not gain better control of the movement of water across our landscapes. We cannot adequately manage the movement of water across our landscapes without wetlands. *WWA is here to help the Task Force develop the ideas and concepts addressed in this testimony.*

Thank you for your attention and your commitment to the health of Wisconsin's water resources.