



# SMART WETLANDS

## ***Collaborative Outreach and Demonstration of Farm-based Tile-Treatment Wetlands for Water Quality Improvement – Outreach Strategies Report***

### **Introduction**

This report outlines and analyzes the effectiveness of the social outreach strategies deployed by the Smart Wetlands team at the Wetlands Initiative (TWI) in the course of the North Central Sustainable Agriculture Research & Education (NCR-SARE) funded project, *Collaborative Outreach and Demonstration of Farm-based Tile-Treatment Wetlands for Water Quality Improvement* (SARE project number LNC22-465). In addition, this report summarizes how the team took advantage of new and unconventional outreach opportunities that emerged after the grant was funded.

Over the two-year funding period (November 1, 2022, through October 31, 2024), the Smart Wetlands (SW) team used the multi-modal outreach framework that we have relied on for the past several years to reach Illinois agricultural communities to increase the adoption of nutrient-removal constructed wetlands for ag tile drainage systems. Outreach strategies included the following, which will each be discussed further below:

- 1) Face-to-face meetings with farmers.
- 2) Collaborative outreach through partnerships with ag organizations.
- 3) Hosting field and online educational events.
- 4) Disseminating print and online outreach tools.

### **Face-to-face meetings with farmers**

In-person, individual conversations with farmers were held across many settings. We have met individuals at:

- Their request on their farms;
- One-on-one visits by farmers to our existing Smart Wetland sites;
- Local watershed meetings and public events;
- Events sponsored by public ag advisers such as local Soil and Water Conservation District (SWCD) staff or with local USDA Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) staff;
- Field days and machine-shed talks sponsored by other ag organizations and
- Illinois municipal, county, and state government partners' events and meetings.

This individual, face-to-face outreach was effective in raising awareness about Smart Wetlands as it allowed a detailed, frank conversation to address farmers' preconceptions about the practice and better explain its function. Wetlands have traditionally been considered "wasted" land in the minds of many Midwest farmers. When suggesting that a landowner put a wetland on their property, it is unclear what picture is created in their mind. Therefore, by clearly showing and explaining how a wetland can easily (and sometimes covertly) fit into their farm landscape, farmers are often more open to considering the practice.

Direct conversations with farmers at field days and other visits to existing Smart Wetland sites proved remarkably effective. By showing two finished wetlands at field days during this project, it was clear that if farmers can see how it can fit into the landscape, they are more open to having further conversations. Field days and other site visits allow for a conversation about how these wetlands are part of an ag tile drainage system. When presented in that manner, we can often get those farmers who are focused on having the most up-to-date farming practices interested in the idea of a wetland.



*Project manager Dr. Jill Kostel answering farmer questions at a field day.*

However, not all farmers will attend a field day, so we worked with our partners to reach them in other ways. Meeting farmers and landowners in the places where they gather with other farmers and valued advisers is the next best way to connect with them. In most cases, we have found that being seen as connected to

an adviser that they already trust has opened the door to conversations that resulted in the construction of a Smart Wetland.

The decision to alter their farm landscape is not an easy one for most farmers and farmland owners, so we have taken the approach that it is necessary to have multiple “touches” with these decision-makers before they are ready to seriously consider asking the Smart Wetland team to design a wetland for their farm. Therefore, our outreach to farmers is an ongoing process that is supported by personal phone calls, emails, and farm visits, along with conversations with their advisers and the appropriate local conservation staff to help build a trusted relationship with that individual and address concerns that may arise from them and their family members.

One aspect we had hoped to achieve during this project was connecting with more **women landowners**. However, that audience continues to be a challenge, given that few local events in Illinois target women landowners. However, progress was made on this front recently when TWI’s Field Outreach Specialist, Jean McGuire, was elected to the Women Food and Ag Network’s board of directors. Her goal is to increase the number of events for women landowners in Illinois and to organize a support community for the new women farmers who are returning to take over their family farms.

The other group that continues to remain challenging to connect with are **bankers and farm managers**. We are hopeful that a recent partnership with a farm manager to build a wetland for one of his clients will create a longer-term collaboration, leading to further connections through him and his peers. TWI continues to work with partners to make the case for the economic benefits of conservation practices that we can take to our contacts in the banking industry. This economic angle is required to facilitate further discussions about the role they can take in getting conservation practices on cropland.

### **Collaborative outreach through partnerships**

Another essential outreach technique was continuing to build partnerships with other organizations working to reduce nutrient loss from Illinois cropland. This primary group of partners are members of the Illinois Sustainable Ag Partnership (ISAP). The Wetlands Initiative is a founding member of this group of diverse member organizations that work collaboratively to encourage the adoption of sustainable and profitable production practices that improve soil health and improve local water quality. SW staff have taken leadership roles in ISAP to support the achievement of its goals and increase the number of farmer contacts we make with this continuously growing organization.

Other close partners are county, state, and federal conservation staff such as local Soil and Water Conservation District offices, county, and state level NRCS staff, along with State of Illinois staff in the Department of Agriculture, Illinois's Environmental Protection Agency, and the Illinois Department of Natural Resources, and the US Fish & Wildlife Service Partners for Fish & Wildlife Program staff.

Typically we work collaboratively with our partners to do outreach in a variety of ways. Depending on the circumstances, we will do joint field visits if a landowner's potential project has aspects to which each partner can contribute their expertise/input. In other cases, when we get requests for support that are not within our scope of work, we pass the request on to a partner who can address the request, and they do the same with TWI. The third primary way we do outreach together is through planning and sponsoring events collaboratively or providing resources for a partner event.

By working with partners, TWI has found a couple of advantages. The first is that it allows TWI and our partner organization to each expand their reach to new and different audiences that have similar needs. The second benefit is that when farmers, especially those new to adopting conservation practices on their farms, see that there is a community that has organized itself and is working together to get conservation on farmland, it gives them confidence that we will be there for the long term.

Finally, TWI is supporting the development of **farmer-led groups** in watersheds such as the Vermilion Headwaters. We will continue to work with similar farmer peer-learning groups as opportunities arise. One of TWI's longest partnerships in a watershed group took a new turn in 2024. The Vermilion Headwaters Watershed Partnership is now prepared, with support from our partner American Farmland Trust, to form a fully farmer-led group. This group will provide leadership to implement the water quality improvement practices needed to achieve the [Vermilion Headwaters Watershed Plan](#). The Wetlands Initiative was a primary contributor to creating this report. Due to her research and experience with farmer decision-making around conservation practices, our Field Outreach Specialist has agreed to help organize and support the farmers leading this group as they formally organize and start work in 2025.

### **Hosting field and online educational events**

TWI also found success in reaching ag audiences by holding our own field and education events, specifically about ag-tile drainage nutrient-removal constructed wetlands. These events reach multiple audiences, including farmers and landowners, agri-business professionals who advise farmers, conservationists, hunting and fishing enthusiasts, and construction and engineering professionals who design and build these wetlands.

The field day that TWI held in June 2023 was the first time we were showing off an established Smart Wetland built two years earlier. Typically, we hold field events during the construction process, but this wetland was installed during the COVID-19 epidemic. Therefore, our priority was to make sure that the property looked great. TWI's Field Outreach Specialist, together with the farmer and his assistant, spent several days preparing the location to be as attractive and weed-free as possible. The next priority was to get the word out about the event, which we did through a news release, personal invitations from the landowner and the local SWCD board member, social media, and ads in local ag media.

The third priority was to make sure that the experience for those who attended was informational and enjoyable. The first stop for visitors was a comfortable tent filled with several of TWI's farm conservation partners who were available to talk with visitors about other practices they could use to improve water quality on cropland. We had a clear pathway from the welcome tent to the wetland where the visitors could talk with those involved in developing and building the wetland. Lunch was served with presentations featuring a welcome from the farmer host, a look at why putting conservation practices on farmland makes good business sense and an update on the 2023 Farm Bill progress.

Unfortunately, a severe derecho storm blew in that ended the event early. TWI staff had been monitoring the forecast and were able to get everyone safely to vehicles before the storm hit. This event highlighted the importance of keeping a close eye on the weather and being ready to adjust the schedule on the fly when holding outdoor events.



*June 29, 2023 Field Day, Marshall County, IL*



The Wetlands Initiative also sponsored a small field day in 2023 that helped support our efforts to connect with influential public advisers. The event was for Illinois State legislators and was held at our Dwight, IL Smart Wetland, followed by lunch. It gave lawmakers a chance to learn about the connection between agricultural drain tiles and conservation, as well as legislation that will support the improvement of the Mississippi River. It was co-sponsored with the National Caucus of Environmental Legislators and the Mississippi River Legislative Caucus.

In 2024, we co-hosted two online webinars rather than in-person field events. This was the first time we tried this effort, and we chose Illinois Natural Resources Conservation Service staff as partners to build our partnerships with influential local advisers further. We had anticipated that a new Farm Bill would be passed in 2023 and planned to share with farmers and landowners the highlights of the new bill and how they could take part in the programs if offered. When the Farm

Bill did not pass, we pivoted to “The Conservation Planning Process” and “Using CSP and EQIP to Achieve Your Farm’s Conservation Goals” as webinar topics.

We found that it was challenging to line up schedules, project goals, and event planning for these online events. While the information was appropriate, it was difficult to connect with the audience through Zoom and the recording that was later made available on YouTube. In retrospect, we should have postponed the event until the Farm Bill was passed.

However, suppose we were to return to a lockdown situation like we experienced with COVID-19. When in-person events are not possible, we think this approach would be an appropriate alternate way to reach farmers, landowners, and advisers when in-person events are not possible. We also find online events to be an effective way to keep in touch and meet with partners at any time rather than traveling across the state.

### **Disseminating print and online outreach tools.**

Finally, we continue to add to and update the outreach tools the Smart Wetlands team uses in our interactions with all of the above groups by regularly reviewing, revising, and improving the Smart Wetlands materials we produce and share, including brochures, banners (table and field), website information, social media, and videos.

As promised in the grant proposal, we produced:

- An updated general brochure on the Smart Wetlands program;
- Two new fact sheets on tile-treatment wetlands, one targeted for farmers and landowners and one for their advisers;
- Infographic presenting water quality monitoring results from wetland sites in a readily understandable format;
- Two new videos, including a narrated overview of the Smart Wetlands program to be shared online and a short video on wetland construction (without narration) to be shown by a SW team member to farmers and landowners planning to build a wetland.

Two additional outreach/educational tools were developed and field-tested during the grant-funded period:

- A “wetland walk” with a series of informational banners, which was first deployed at TWI’s Marshall County field event in 2023 and can be reused at future field events. (see photos below)
- A “lookbook” for use at in-person meetings with farmers that illustrates the purpose and function of Smart Wetlands with large photos from several already-built wetland sites.

These two new tools came about because we identified a need for them while working with farmers, landowners, and their advisers. The “wetland walk” was a way to visually share the same information that SW staff discuss when we take individuals and small groups for an in-person visit to one of our wetlands or when we present our program to a group in a meeting setting. When we were planning for large attendance for our 2023 field days, we knew we needed an easy way to share basic information. Since constructed wetlands are not a well-understood practice and the TWI Smart Wetlands team is small, we opted to let the banners tell the story,

and we were available to answer questions or clarify information. The banners proved popular and valuable.



*These images show the wetland walk at a June 29, 2023 Field Day in Marshall County, IL*



The idea for the lookbook developed when the Field Outreach Specialist was visiting a family interested in a Smart Wetland for their farm. One member had a vision issue that made it hard for him to see a laptop screen showing photos of our Smart Wetlands. Instead, he took a closer look at the printed Smart Wetlands brochure she had brought. Since many of the farmers and landowners we encounter are older and some have vision issues or are not comfortable using electronic gadgets, we decided to try a large printed book (11” by 17”) to show off our Smart Wetlands and share more information on how to get a SW for their farm. This lookbook, which is similar to glossy large books used to market options for home renovations and other projects, has been quite popular not only with farmers but also with advisers and other TWI partners.

The Smart Wetlands online tools have, to date, played a supporting role in our in-person outreach efforts. Once we are able to hire more staff to focus on this aspect of outreach, we will increase our social media presence, create new content on our web page, and create more short informational videos.

### **Unanticipated new outreach opportunities**

After TWI submitted our North-Central SARE grant proposal, we took advantage of several situations that developed unexpectedly during the grant period. These new outreach opportunities provided essential lessons learned and helped us expand our outreach considerably.

### ***Engaging outdoor enthusiasts and tile manufacturers***

The first opportunity presented itself when a non-farm landowner asked the SW team to build a wetland on his land that would allow ag tile water flowing from a nearby row crop field through his property to be treated. This opened an opportunity to further engage the landowner in the Smart Wetlands project, who is not only an outdoor enthusiast but a sales representative for a major pipe (and tile) manufacturer. In August 2022, his Smart Wetland was built, and today, the landowner (Wes Lehman) operates dog boarding and training facilities and allows hunt dog training and hunting on the 13-acre property. TWI held multiple traditional field events during the construction (before the start of the SARE grant period).

Subsequently, due to interest from recreational landowners, including local hunting clubs, the SW team sponsored another field event at that wetland location in 2023 that featured talks on waterfowl, bird migration, and training dogs for duck hunting. This event drew individual landowners, representatives from Illinois hunting clubs and organizations, and hunters who were interested in developing hunting habitats. Wildlife enthusiasts – whether they are hunters or those who enjoy wildlife – are a new target audience for us. Building an attractive event program was essential to attract visitors to this event. Once they saw the wetland and surrounding landscape, they were sold on the concept. At this time, the SW team is developing outreach plans and new partner communities to pursue this audience further.



*Besides the Smart Wetland, a hunting dog demonstration and a researcher discussing bird habitat on private land were popular with attendees at the recreation-focused field day in September 2023.*

In addition, Wes is promoting Smart Wetlands as part of his new position as Drainage Conservation Specialist with the ag tile drainage manufacturer Springfield Plastics, Inc. He has connected the SW team with a neighboring landowner who is now pursuing the construction of a Smart Wetland on his farm. These connections are vital since we rely on the ag-tile drainage community as trusted advisers to farmers and landowners who are interested in adopting water quality improvement practices. Landowners who are putting in a new tile-drainage system can also proactively choose to incorporate a Smart Wetland in the system design, which can be more cost-effective and convenient if the tile-drainage business makes them aware of that option.

***Building awareness through a publicly accessible Smart Wetland site***

A representative from the nearby Champaign County Forest Preserve District attended one of the construction field events held at the aforementioned SW site. The event inspired him to pursue something similar on Forest Preserve District property, leading to a new partnership with TWI. This vision will become a reality when a 6-acre wetland complex is built at a Champaign County forest preserve in 2025.

The wetland will be sited along a popular trail. District staff expect tens of thousands of annual visitors to enjoy the wetlands for their natural beauty and the large variety of wildlife it will attract. The 600 acres of tile drainage water currently flowing through the preserve from adjacent farmland

will be treated in that complex. When complete, the SW team will have a publicly accessible wetland location that will demonstrate to farmers, landowners, ag advisers, and the public how cropland drainage can be treated to improve water quality and create an oasis without the need to remove cropland from production.

### ***Featuring the SW practice in a documentary film***

Another unusual outreach opportunity emerged when an Illinois filmmaker with close ties to TWI decided to make a movie called *Fluddles*. This documentary focuses on how birds use temporarily flooded areas (aka “fluddles”) on the Illinois landscape as critical resting stops during spring and fall migration. Many of the state’s wetlands have been drained within the Mississippi River Flyway and converted to row crop land, thereby reducing the options for birds to rest in the state. TWI agreed to be a sponsor of the production since it examines how migrating birds are relying on constructed and restored wetlands sited on ag land.



Staff from TWI, The Nature Conservancy, and the US Fish and Wildlife Service, along with Smart Wetland owner Wes Lehman, were featured in the movie (*seen on the left at the movie premiere*). In addition, the producers used video of our Smart Wetlands recorded by SW staff. Once the movie was released, SW staff and Wes were invited to speak on panels following several public screenings of

the movie in 2023 and 2024. This expanded our outreach about Smart Wetlands to two unexpected audiences: the general public and passionate bird watchers. We believe that this increased awareness by other audiences will lead to broader support and advocacy for the use of tile-treatment wetlands as a normalized practice on farmland in the long term.

### ***Seeking alternative outreach avenues when events are postponed/canceled***

The final unexpected opportunity arose when plans went awry. In the summer of 2024, a large wetland project’s installation was postponed about three months before its target construction date. That meant that TWI’s Field Outreach Specialist, Jean McGuire, no longer had field events to plan during the wetland’s implementation; however, the summer event season is critical for making ag-sector connections. Consequently, she pivoted to pursue alternative outreach in the following ways:

- attended as many other field days as she could in central Illinois.
- wrangled an invitation for a SW farmer partner to speak at a regional event that educated farmers about how using edge-of-field practices can help improve water quality on their farms.
- agreed to help plan and execute a highly successful outreach event for conservation and ag professionals by the Illinois Sustainable Ag Partnership at the Illinois State Fair, and



- helped coordinate a field day that was co-sponsored with a local SWCD that featured a Smart Wetland.



*Dr. Jill Kostel (above far left) talks with an attendee at the IL Sustainable Ag Partnership event at the IL State Fair. Nearly 100 people attended this conservation professionals' mixer on Ag Day of the fair. Smart Wetlands Staff played a key role in organizing and carrying out the event.*

### **Conclusion**

Both planned and unplanned social outreach approaches were used in the course of this two-year project to motivate farmers, landowners, their advisers, and recreational landowners to install a Smart Wetland to remove nutrients from ag tile drainage water. However, they all ultimately shared some common denominators: meeting those individuals where they are, taking the time to build a trusted relationship with them and visit their farms, meeting them at field days or other events organized by already-known and familiar partners, and sharing information about Smart Wetlands and other farm conservation practices via phone calls, emails, and creative educational tools.



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