

BWSR staff expertise contributes to quality of private wetland banks



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— John Overland, BWSR wetland banking specialist

Minnesota is a leader in private wetland banking, a system that produces high-quality, permanent replacement wetlands to offset authorized, unavoidable impacts to existing wetlands. The state’s 330 private wetland banks account for about 15% of all such banks in the U.S., data from the U.S. Army Corps of Engineers (USACE) show.

The Minnesota Board of Water and Soil Resources (BWSR) serves as the state’s wetland banker. BWSR staff members are among the local, state and federal partners who review prospective wetland banks and ensure that existing sites meet the strict requirements.

“Wetland banking is not a conservation program,” said BWSR Wetland Banking Specialist John Overland, whose duties include reviewing



applications. “It’s not additive to the landscape. It’s there to offset other losses, and because of that it has to be permanent.”

Replacement wetlands must achieve no net loss in quantity, quality and biological diversity to meet requirements of the Minnesota Wetland Conservation Act (WCA).

Top: BWSR staff members in June 2022 were among those who reviewed a private wetland bank, a multi-agency endeavor to verify progress of plant communities and hydrology. This site is in Redwood County. **Photo Credit:** Solimar Garcia Barger **Above:** “The first year that we restored the wetland, the frogs came back,” Dave Franske said of the 41.3-acre Mader Farm LLC private wetland bank in Minnetrista, which filters water bound for Halsted Bay and Lake Minnetonka. The site also drew an abundance of waterfowl. **Photo Credit:** Mary Jo Mader

In limited situations, draining or filling wetlands is allowed when the lost functions and values of those wetlands are adequately replaced by restoring, enhancing, or creating wetlands elsewhere. That process is called wetland replacement or mitigation.

The most common wetland mitigation mechanism in Minnesota is wetland banking, where available wetland mitigation credits are purchased and withdrawn from an approved wetland bank. The credits represent acres of wetlands previously approved for mitigation credit and subsequently restored. The credits deposited in the bank may then be purchased to replace future wetland impacts.

“Being part of a regulatory program, it has to work. It has to be successful,” Overland said. “It’s a long, expensive and challenging process to get through. It can be financially lucrative, but it can also cost a lot of money to get not a lot of credits if you don’t pick the right site or aren’t working with the right property.”

In Minnesota, most wetland banks are completed by private landowners who prepare mitigation plans and implement their projects with the help of professional consultants and/or experts in wetland and ecological sciences, engineering and surveying.

The Mader family sold the last of the 27.167 credits generated by the 41.3-acre Mader Farm LLC wetland bank in February 2023 — nine years after discussions with the Minnehaha Creek Watershed District began. On behalf of his wife, Mary Jo, and her siblings, Dave Franske worked with the watershed district, developers, the environmental consultant Wenck, the city of Minnetrista,

“ The first year that we restored the wetland, the frogs came back. ... Then the sandhill cranes came, and every year we’ve had sandhill cranes there. We always get ducks and geese, and there have been swans there. There are wild turkeys. The birds that came back are just incredible. ”

— Dave Franske, describing the Mader Farm LLC wetland bank site in Minnetrista



Hennepin County, BWSR, the U.S. Environmental Protection Agency (EPA) and the USACE.

“We met with (MCWD Administrator) James Wiskar five or six times, and he was willing to educate us about wetland banking. And the same with the BWSR people and the Army Corps. Every time we met with them everybody felt good about the potential for the project, and they were willing to invest time to educate us. We viewed all of the regulators as partners in the project with us,” Franske said.

When the family sold the land in 2016, Franske secured an easement to restore the previously drained and farmed wetland. Approval to proceed with the wetland bank came in 2017 after Prairie Restorations seeded the site, which is now jointly owned by 11 homeowners who live in a cluster development.

“Everybody in my wife’s family saw there was potential here for this to be valuable environmentally and financially, and it would make a much nicer development if this space were left as open space,” Franske said.

The wetland filters runoff bound for Halsted Bay and Lake Minnetonka. While it was riskier and required a

significant investment of time and money initially, pursuing the wetland bank along with development eventually generated income from the entire property. Most of the Mader Farm LLC’s 45 separate wetland bank sales involved less than 0.50 credit. The smallest — 0.0146 credit — offset the impact of residential construction. The largest — 4.32 credits — offset the impact of an industrial development.

“There aren’t many wetland bank credits available in Hennepin County, and that made our wetland bank pretty attractive to developers,” Franske said.

More than 300 local units of government across the state administer the Wetland Conservation Act. Local governments — including soil and water conservation districts and watershed districts — decide whether to approve wetland bank plan applications. They work with approved applications to ensure that proposed restoration and enhancement work is completed and certified, and to verify the resulting credits.

Most wetland banks also request USACE approval so sponsors can sell approved credits to applicants needing USACE permits. That requires

interaction with state and federal agencies such as the Minnesota Department of Natural Resources and the U.S. Environmental Protection Agency (EPA).

BWSR plays several roles in reviewing and administering private wetland banks. BWSR staff members serve on technical evaluation panels (TEPs). Their review of wetland banking plans focuses on whether naturally occurring wetland functions will be restored, whether proposed restoration actions will be sustainable — and if planned restorations are legal and avoid adversely affecting public infrastructure and adjoining properties.

A unique aspect of BWSR’s review process stems from a 2015 interagency Memorandum of Understanding between BWSR and the USACE-St. Paul District. It stipulates that BWSR will provide a qualified licensed professional engineer to review engineering related components of proposed compensatory mitigation banks in Minnesota. The goal is to provide greater efficiency and coordination in reviewing regulatory wetland banks in support of both the Minnesota WCA and Section 404 of the federal Clean Water Act.

“(BWSR Senior Water Resources Engineer Tom Wenzel) provides engineering review for the state. As that third-party engineer perspective, it’s really valuable,” said USACE-St. Paul District Mitigation Coordinator Leslie Day. “(His) is the engineering review that gives us a lot of confidence in a third-party reviewer of the data we’re being given from sponsors.”

Day said Wenzel’s review ensures that project designs

are free of significant flaws that could cause structure failures. It ensures that restored sites will last — not just for 10 or 20 years, but for the long term.

As they work their way through the regulatory review process, most wetland banks undergo at least two formal engineering reviews. More complex or multi-phased projects might require more reviews and a significantly higher level of engineering support.

In an average month, BWSR completes two to five such reviews. Wenzel conducts most of that work, and participates in informal discussions, meetings and site visits with private consultants and others working on the project.

“My goal as part of this review process is to ensure that technically sound engineering designs are developed and implemented, which hopefully result in long-lasting projects that meet program requirements and end up being successful for the landowner,” Wenzel said. “Sharing what we as an agency have learned about wetland restoration and project success, whether it be through formal training or one-on-one consultation,



This private wetland bank site in Redwood County, seen in June 2022, showed progress after two years of drought conditions. Photo Credit: Solimar Garcia Barger

is an important part of our mission.”

BWSR has long viewed wetland banking as the preferred form of wetland replacement.

The 1991 WCA legislation included the authority for wetland banking, but the program took several years to gain traction. The program and process have evolved significantly — moving from the “on-site/in-kind” approach to one that produces larger, more ecologically valuable parcels with landscape-scale benefits.

Data from the U.S. Army Corps of Engineers show that more than 62,000 acres of wetlands and their upland buffers have been restored, enhanced,

created and protected as part of mitigation banks in Minnesota.

“Minnesota has had a state regulation independent of federal jurisdiction for over 30 years,” Overland said. “So we’ve been around longer than most. We are wetland-rich and restoration-opportunity rich, and so there’s a lot of wetlands out there to bump into during construction and lots of opportunities to put those back on the landscape where they’re needed.”

Wetland bank credits can be deposited and sold once an approved mitigation plan is in place, a perpetual conservation easement (held by BWSR) is recorded, and performance standards are achieved. The planning, rigorous scientific

and technical analysis, demonstrated success and perpetual protections are meant to ensure that desired environmental benefits are achieved.

“Wetlands do things that provide value to the public, whether it be wildlife habitat or water quality improvement or nutrient assimilation or flood prevention,” Overland said.

Fluctuation in state wetland bank use depends upon factors including the state of the economy and credits’ availability. The number of annual withdrawals has ranged from five during the program’s infancy in 1992 to 860 during the development boom in 2005. BWSR’s database shows 11,775 wetland bank withdrawals from 1992 through 2020. The number of annual withdrawals averaged 602 during the 10-year period that ended in 2020.

“If a high-quality wetland is impacted, we want to make sure that all the credits available are at least as good as that high-quality wetland,” Overland said. “They need to be protected into perpetuity. The functions that they provide need to be provided into perpetuity because the wetland loss is forever.”

