

# BWSR engineer shaped future of state's wetland restorations



NRCS Video: [“Wetland Restoration in Southeastern Minnesota,”](#) centers on an 880-acre wetland restoration in Steele County. Tom Wenzel is among those interviewed and counts the project among his career highlights. Over the course of six years, it involved landowners working with the SWCD, BWSR and the USDA’s Natural Resources Conservation Service. The seven-phase restoration included disabling 40-plus miles of subsurface drainage tile and several miles of open ditch.

*BWSR Senior Water Resources Engineer Tom Wenzel explained elements of the Grass Lake restoration project during a July 2024 staff tour of the Kandiyohi County site. Here, a weir structure controls water levels in the Peach Creek diversion stormwater pond.*  
**Photo Credit:** Ann Wessel, BWSR

Minnesota Board of Water and Soil Resources (BWSR) Senior Water Resources Engineer Tom Wenzel estimates he’s had a hand in restoring 100,000 acres of drained and altered wetlands and shallow lakes across Minnesota during his 39-year career.

As Wenzel prepared for his May 1 retirement, he reflected on a career that launched in 1987 when the agency formed and began administering the new Reinvest in Minnesota (RIM) Reserve conservation easement program. At that time, the idea of restoring drained and altered wetlands was a relatively new concept for conservation agencies and organizations.

“We didn’t even have standards for

“ He’s now viewed as the guru for wetland restorations. Other people will say this: He’s probably done more wetland restorations than probably anybody on the planet. ”

— Greg Larson, former BWSR program manager

how to do a wetland restoration in Minnesota when he started,” said BWSR Assistant Director for Regional Operations Justin Hanson.

Wenzel went on to co-author the [Minnesota Wetland Restoration Guide](#), which remains a resource for conservation professionals across the state and beyond.

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**BWSR blog post:**  
[Five questions with Tom Wenzel](#)



**Left:** Wenzel visited the Lake Superior Wetland Bank in October 2015 in St. Louis County. **Middle:** Wenzel, at the microphone, and Chief Engineer Al Kean, who has also since retired, received the Freshwater Society's Clean Water Champions award in April 2018 for their respective work involving wetland restorations and a drainage work group. **Right:** Wenzel delivered a presentation in May 2013 with Carver County SWCD staffer Greg Graczyk at the Wahibo Marsh site in Carver County. Contributed Photos

wetland restorations," said former BWSR Program Manager Greg Larson, who hired Wenzel as the agency's first engineer. "Other people will say this: He's probably done more wetland restorations than probably anybody on the planet."

Those restorations transpired through conservation easement programs including RIM; the [Conservation Reserve Enhancement Program](#) (CREP), which involves RIM and the federal Conservation Reserve Program; and the state's wetland mitigation banking programs.

Those who worked with Wenzel said he fine-tuned each design to the site and to the landowner. They noted his ability to recall details of projects spanning decades, and his willingness to work with project partners.

"He's just so dedicated to doing what's right for the environment, doing what's right for the programs that he supports," said BWSR Chief Engineer Rita Weaver. "He really cares about the work he and his staff produce."

BWSR provides technical support to soil and water conservation district staff

**“ He would show up. If the meeting needed to take place onsite, he would be there. ... Sometimes he's articulating the important points that a landowner may need to take back to their family members. He could talk about really technical things, but (describe them) so they felt confident going forward. ”**

— Justin Hanson, speaking from his previous experience as the Mower SWCD manager



and others who work directly with landowners on RIM and CREP easements. In that role, Wenzel has worked out technical details with local staff, and, when the situation warranted, met with farmers to explain how a project would affect and benefit their land and their neighbors' lands.

"He's a driven guy. He really enjoys his work and takes a lot of pride in it. You can tell he's passionate about the goals of the agency. He's passionate about conservation and restoration," said BWSR Project Engineer Josh Swanson, who was hired by Wenzel seven years ago as a technician. "In terms of working for him, it comes out as he's pushing you to do your best work, which is the leadership we sometimes all need."

Minnesota Pheasants Forever Private Lands Manager Josh Pommier was a Farm Bill biologist working on a Minnesota Conservation Reserve Enhancement Program (MN CREP) sign-up in Meeker County when he met Wenzel in 2019.

"I had submitted, in my mind, a large CREP application that was pretty involved — rerouting a county ditch, rerouting a county tile (line)," Pommier said. Wenzel was the lead engineer. "He didn't let property lines or county lines get in the way of a good-quality wetland restoration. ... He saw the big picture of all these adjacent wetlands and asked, 'Do you know these other landowners? Do you think they'd be interested?' He took that 140-acre

application to 260 acres, and we had an awesome project out of the deal."

The [result](#) includes perpetual conservation easements on five properties secured through four easement programs — MN CREP, RIM, the Agricultural Wetland Bank, and the Local Government Road Wetland Replacement Program.

"He knew all these different options ... and just knew the people to help make the projects happen," Pommier said. Wenzel also explained the options to landowners. "Having someone help push me beyond my comfort zone was scary at the time, but at the end it was a lot of fun."

As part of coordinated attempt to streamline engineering reviews of wetland mitigation banks being completed through the state's Wetland Conservation Act (WCA) and through Section 404 of the Clean Water Act, which is administered by the U.S. Army Corps of Engineers, USACE St. Paul District Mitigation Coordinator Leslie Day worked with BWSR to develop a memo of understanding that allows BWSR to provide engineering review for the Interagency Review Team



Day



Grean



Pommier



Swanson



Weaver

(IRT). The IRT provides feedback on USACE mitigation proposals. Wenzel has served in that role since 1991 when BWSR started administering the state’s WCA program.

“In regulatory, most of us are not engineers and Tom has just a huge breadth of experience looking at basically every wetland restoration in the state, whether it’s for RIM or private banking or BWSR’s banking,” Day said.

That simultaneous federal and state review makes it possible for sponsors, who generally work with private consultants, to develop mitigation projects in an attempt to achieve and then sell both state and federal wetland banking credits from their completed projects. USACE’s six-person mitigation staff typically has about 50 pending mitigation banks to review at any given time. They divide the work. Wenzel has been involved with and provided engineering review comments for all of them.

Day said Wenzel’s expertise has been especially valuable on complex projects such as northern Minnesota sites encompassing thousands of acres and several ditch systems.

“He’s obviously passionate about making sure we end up with good wetlands for the state of Minnesota,” Day said. “He really wants to make sure that they’re

**“ I’ve never had a meeting with him or a site visit where he hasn’t dug in and done the work upfront. He’s always prepared. ... Other people around him, they also need to come prepared and have thought through the issues themselves, so that we can have a good debate or a discussion or find a solution. ”**

— Leslie Day,  
U.S. Army Corps of Engineers St. Paul District

sustainable for the public, and also for that landowner so they don’t end up with a money pit. So he really dives into those details, even on things that would seem very minor to me, like potential erosion at outlets that you’d think could just be fixed pretty easily. He doesn’t want it to have to get fixed later on.”

Wright SWCD Wetland Resource Conservationist Andrew Grean administers the WCA, which requires offsetting wetland loss through wetland banks. As part of Wenzel’s job, he reviewed and evaluated the technical aspects of all wetland mitigation bank applications that are proposed in Minnesota.

“Tom has always done his diligence, has always come prepared to meetings, and has justification for whatever the comments might be,” Grean said. “I’m not an engineer and so having that input is very helpful. There would be complex plans to restore a wetland, and Tom and

his team with BWSR would speak to that.”

The resulting restorations, part of perpetual conservation easements, were designed to minimize long-term maintenance and appear more natural.

“I have seen restoration plans that just look very engineered,” Grean said. “They just look created, and maybe for good reason. But through changing the design, I think you can result in a more natural system with less construction, less infrastructure that would require maintenance. And I think that was Tom’s goal.”

Wenzel said restoration strategies continue to evolve, based on what has and hasn’t worked on past projects. [Grass Lake](#) is among the many restoration projects that Wenzel has designed and completed. Located along the southeast edge of Willmar in Kandiyohi County, the 1,200-acre shallow lake basin was drained by both private and public ditch and tile systems. Its restoration took

years to complete. Other projects, such as a [Rice County wetland restoration](#), involved many elements — a neighboring landowner, a county road and a drainage system among them.

“Every site is unique, and as much as I’d like to think I’ve seen everything, I know I haven’t. Trying to evaluate these projects and come up with a restoration plan that is going to provide the most beneficial outcomes in understanding what you can and can’t do with respect to adjoining property rights, to public and private drainage systems, to public roads and other utilities and transportation infrastructure — that’s where I think the experience of doing this for a long time ... puts us in a really good spot to effectively come up with restoration plans without starting from scratch every time,” Wenzel said.

“I think that’s one part of this job that I’m probably going to miss the most when I retire, is just helping to figure all that out on the front end and apply (the knowledge and experiences that I’ve gained) over all these years to help programs and staff be successful at getting these projects done.”

BWSR staff members write and produce *Snapshots*, a monthly newsletter highlighting the work of the agency and its partners.