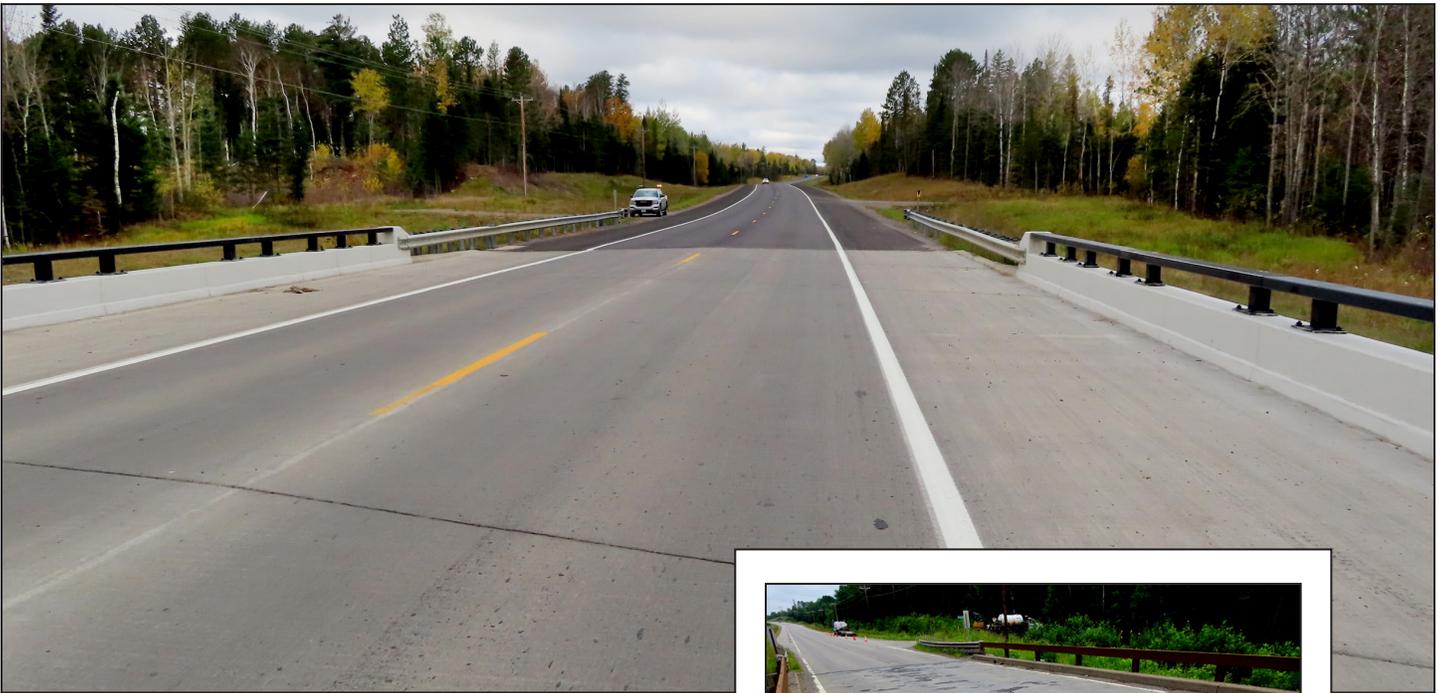


LOCAL GOVERNMENT ROAD WETLAND REPLACEMENT PROGRAM



Banking on the road bank

BWSR program improves safety, restored wetlands' quality, government efficiency

The Minnesota Board of Water and Soil Resources' Local Government Road Wetland Replacement Program (LGRWRP) has resulted in safer highways, higher-quality wetlands and a more efficient system for counties that bank on the "road bank" to make road and bridge improvements.

The LGRWRP provides wetland mitigation credits to local road authorities for qualifying projects. State and federal laws require replacement of wetlands that are filled or drained. Under the program, restored wetlands can produce credits that are deposited into a statewide wetland bank. Local road authorities can use those credits to acquire state and federal wetland permits. Previously, local road authorities mitigated wetland impacts on a project-by-project basis.

"This system is one of the most cost-effective, environmentally beneficial things I've ever seen the state do," said St. Louis County Public Works



“ Not only does the program result in (a) huge amount of environmental benefit because the quality of all the

wetlands is better — there's also more acres of wetlands being created for the road offsets — but it saves the counties a lot of time and money. ”

— Carol Andrews, St. Louis County
Public Works Environmental Engineer

Top: A 2016 bridge replacement over the Partridge River on St. Louis County Road 110 near Hoyt Lakes widened the shoulders and used 0.23 in road bank credits. **Above:** The county obtained environmental permits for about 35 construction projects in 2022; half involve wetland mitigation. A Pelican River bridge replacement on a township road near Orr likely will require the most credits: 0.26. The road will be moved away from houses; a longer, 86-foot-long bridge will allow for stream runoff.

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“ BWSR has the expertise to be doing wetland replacement appropriately, and this program allows that replacement to happen consistently and accurately.

— Brian Giese, Pope County Engineer, past president of the Minnesota County Engineers Association

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Environmental Engineer Carol Andrews, whose duties include obtaining permits for road and bridge projects.

In a typical year, St. Louis County completes about 25 projects within its 3,000-mile county road, 600-bridge system that require environmental permits. Of those projects, about half require wetland mitigation.

In St. Louis County and throughout Minnesota, wetland mitigation is most often required when a sliver of wetland must be trimmed to flatten ditch slopes and widen road shoulders. Those improvements, along with widening curves, make it safer for drivers who run off the road.

Running off the road was the No. 2 contributing factor to single-vehicle crashes in 2020 (the most recent year for which data is available), second only to “road surface conditions,” Minnesota Department of Public Safety crash facts show.

Andrews elaborated on the environmental benefits of supporting larger restorations made possible through the LGRWRP vs. the sort of “postage stamp-sized” restorations more typical before the program began in 1996:

“Those little re-created wetland areas might have held some water to offset the impact of losing (wetlands), but the quality of the wetland as far as habitat was nothing



St. Louis County drew 1.6 acres from the Local Government Road Wetland Replacement Program to mitigate impacts to wetlands adjacent to County Road 4 in northern Duluth. The project was designed to improve the safety and function of two intersections and the corridor between them. Dual left-turn lanes were expected to reduce the number of rear-end crashes. The raised concrete median was expected to reduce the number of head-on crashes.

compared to the quality of the big wetlands, really well designed, located, constructed and maintained that the Board of Water and Soil Resources helped to create.”

By holding water after heavy rains, larger wetlands reduce the chance of flooding — which, in turn, improves road safety. By maintaining a base flow during drought conditions, wetlands help to keep cool, clean water flowing to streams, which is especially critical for trout streams. Throughout the state, incorporating native plants in restorations supports a

more diverse ecosystem.

Among the larger restorations: within a St. Louis County fen managed by the Natural Resources Research Institute at the University of Minnesota, Duluth, about 450 acres was restored over eight years. It generated about 330 credits divided among BWSR, the Minnesota Department of Transportation and UMN-Duluth.

Before the LGRWRP, wetland replacements were often a fraction of an acre, designed by less-experienced staff already strapped for time and resources.

“Prior to the adoption of the program, each local agency was required to replace those wetlands impacted on their own. It took more time. Probably had less consistency. Probably had less compliance, but certainly cost more,” said Pope County Engineer Brian Giese, past president of the Minnesota County Engineers Association.

Counties would sometimes hire consultants. Or engineers would spend time learning the rules, and then acquiring the land, designing and constructing the projects.

“The bottom line is the efficiency that it provides makes so much sense,” Giese said.

“We’ve created immense efficiencies within road authorities to accomplish what’s necessary for public safety, a win-win for the public and for the local road officials. And on the flip side, (we’ve) created a win-win for the environment and BWSR, where the program can be best managed,” he said.



The Minnesota Board of Water and Soil Resources’ mission is to improve and protect Minnesota’s water and soil resources by working in partnership with local organizations and private landowners. www.bwsr.state.mn.us