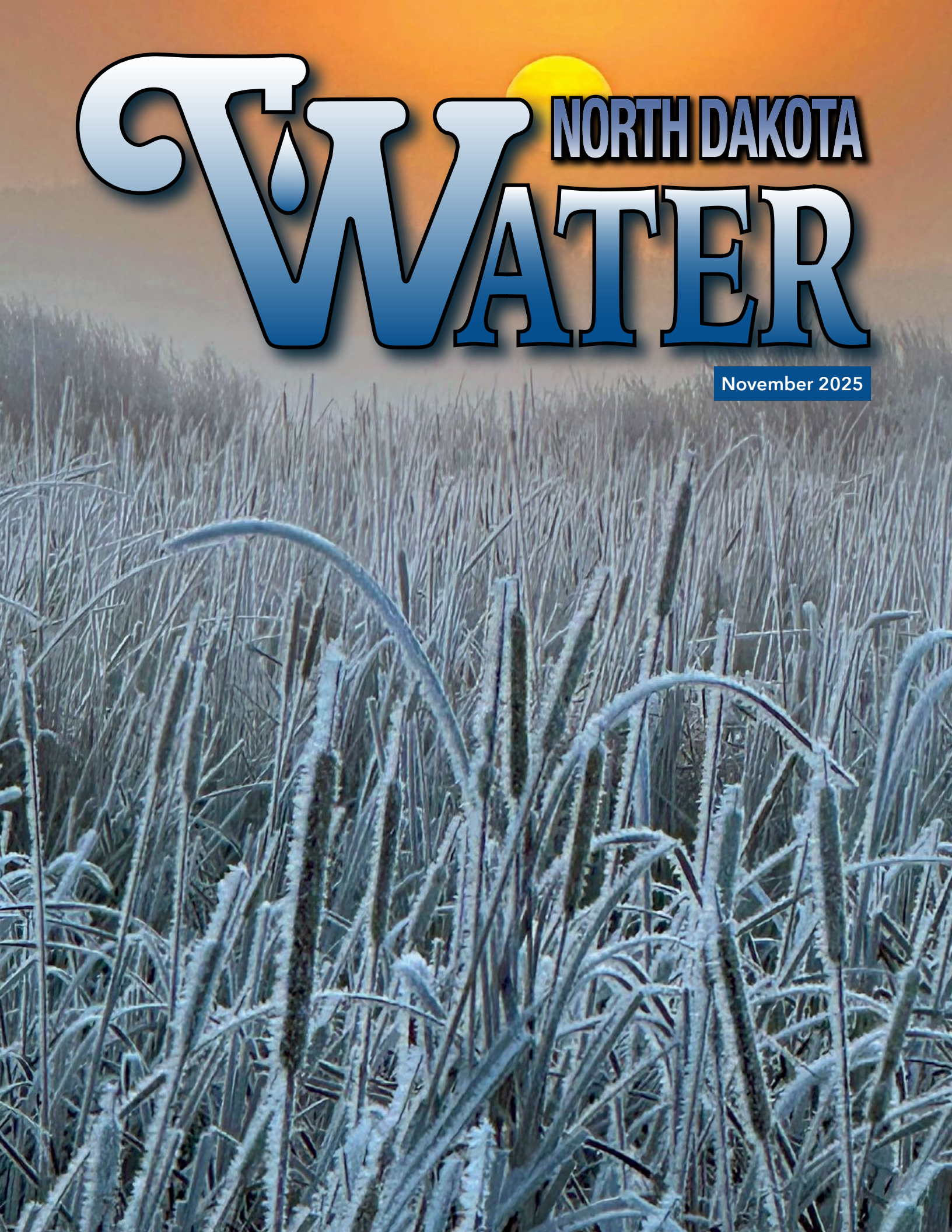
NORTH DAKOTA WATER

November 2025



KEEPING AN EYE ON THE NEIGHBORS

Dani Quissell
Executive Director
North Dakota Water
Education Foundation

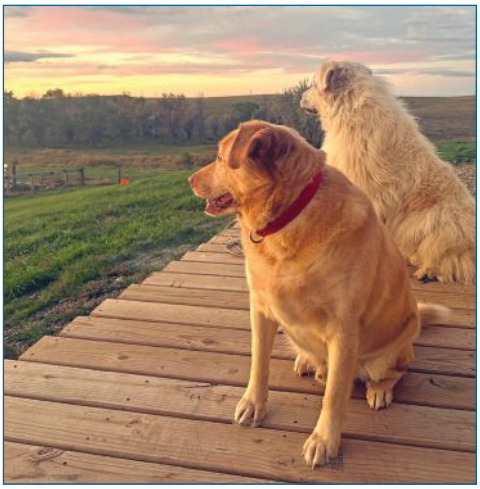
It's a good thing we live out of town with a good mile between us and the closest neighbor, because Buddy and Marvin, our resident watchdogs and self-appointed neighborhood patrol, are nosey. Someone driving down the road? They're checking them out. Someone working out in the field? Better bark at them to let them know there's someone watching. Someone pulling into the driveway? They're already halfway to the vehicle before the engine shuts off.

Buddy, in particular, takes his duties seriously. He's been known to jump right into delivery trucks to inspect packages – just in case there are treats involved. He's especially fond of checking the back of UPS and FedEx trucks. You're welcome, neighbors.

While Buddy and Marvin might be a bit nosey, when it comes to water, North Dakotans aren't quite the same – but we do like to stay informed. Water is a shared resource, and we understand the value of knowing what our neighbors are working on. Often, we look for opportunities to collaborate across state lines to manage water in ways that benefit the entire basin.

That was the premise behind the establishment of the Upper Missouri Water Association. Water entities from Montana, North Dakota, South Dakota, and Wyoming formed the association to provide a venue for working collaboratively to advance the interests of all four Upper Missouri Basin states.

This year, we're proud to host the Upper Missouri Water Association during the Joint Water Convention taking place December 10-11 in Bismarck. Water leaders from across the region will gather to share insights, hear presentations and strengthen connections. Topics will include updates on the Missouri River, litigation involving U.S. Fish and Wildlife Service wetland easements, sovereign lands regulation, and advances in irrigation technology.



Buddy and Marvin

The Joint Water Convention will also feature the Irrigation Workshop where there will be a forum on water permits with the Department of Water Resources and training for water managers featuring an update on cost benefit analyses for assessments. And in the spirit of supporting the next generation, the convention will host a silent auction to benefit the Dushinske & Jamison Water Resources Scholarship, which helps North Dakota college students with ties to the water community pursue their educations.

Whether you're a water professional, a policymaker or simply someone who cares about the future of our shared resources, the Joint Water Convention is a great opportunity to learn, connect and collaborate. To view the full agenda and register, visit ndwater.org/events.

We hope to see you there – keeping an eye on the water, and maybe even on the neighbors.

Dani

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On the Cover

"Triple Beauty...Sun, Fog, Frost" by Melissa Erickson, McHenry. This photo was the 1st Runner Up in the 2025 North Dakota Waterways Photo Contest, sponsored by the North Dakota Water Education Foundation.

Quality Water for Southwest North Dakota

SOUTHWEST PIPELINE PROJECT

There are a lot of reasons continuing the construction of the Southwest Pipeline Project makes sense. For one, it makes economic sense, not only for the region, but for the state of North Dakota. It helps ensure a quality of life for the thousands of people working and living in rural southwest North Dakota. It keeps communities, family farms and ranches viable for generations. Clean, reliable, quality water for drinking and household use is one of life's necessities, and the Southwest Pipeline Project has hundreds of people who continue to wait. That's why we are not done!

SOUTHWEST WATER AUTHORITY

swwater.com

Celebrating THE Retirement OF Jim Lennington

It is with deep gratitude and admiration that we congratulate longtime engineer Jim Lennington on his upcoming retirement in December 2025. Jim's impact on rural water in North Dakota will be felt for generations to come.

For more than 30 years, Jim has played a pivotal role in the success of the Southwest Pipeline Project (SWPP). Our system has been fortunate to work alongside him with his unmatched dedication and expertise. His leadership, first with the North Dakota State Water Commission and later with Bartlett & West, set a standard of excellence that continues to inspire, earning him a Resolution of Appreciation from the SWA Board of Directors.

Beyond his technical skill, Jim has always been a supportive partner, willing to share his knowledge, answer difficult questions, and roll up his sleeves when challenges arose.

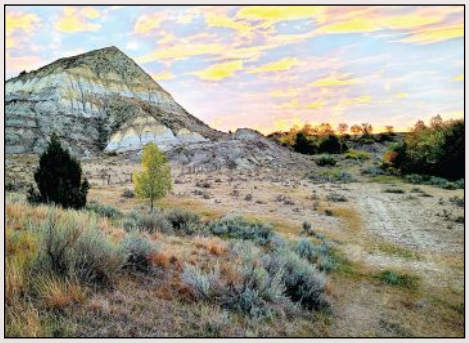
"Thank you for the kind words and the Resolution of Appreciation recognizing my coming retirement," Lennington said. "I have been honored to work with all of you on the SWPP for many years. I continue to be impressed by SWA's governance model, its board members, SWA staff, and their partnership with the SWC and Department of Water Resources. I am confident that the SWPP is in good hands and expect to hear nothing but good news about the project in the future."

We thank Jim for his vision, leadership, and decades of service. We congratulate Jim on his well-earned retirement and celebrate the lasting legacy he leaves behind. His work will continue to flow – literally – in every drop of "Quality Water for Southwest North Dakota."

The Timeless Flow of the Little Missouri Scenic River

Winding nearly 600 miles through rugged badlands and open prairie, the Little Missouri River is one of North Dakota's most iconic waterways. The river begins in Wyoming and flows through South Dakota before crossing into North Dakota, where it officially becomes the Little Missouri Scenic River – a title designated by the state legislature in 1975 to preserve its free-flowing, natural condition.

That designation also established the Little Missouri Scenic River Commission, tasked with helping protect and oversee the river and its surrounding landscape. Flowing northward through the Badlands, the river winds across the Little Missouri National Grassland and all three units of Theodore Roosevelt National Park before joining the Missouri River northeast of Killdeer. Along the way, it shapes landscapes, connects communities, and tells stories as old as the land itself.



A River of Memories

For Southwest Water Authority (SWA) Chairman James Odermann, the Little Missouri Scenic River is more than a geographical feature – it's part of his life story. Having grown up in the region and served as a senior member of the SWA board, Odermann brings a deep understanding of both the land and the vital role water plays in sustaining it. His decades of experience in the water industry give him a unique perspective on how the river shapes the people, communities and resources of western North Dakota.

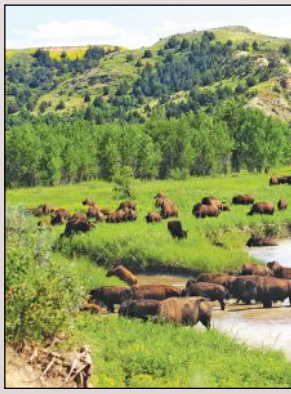
"I remember swimming in the Little Missouri River at Sunday summer picnics or crossing the river with farm machinery to plant crops," he recalls. "The knowledge of the old-timers was essential so you didn't drop into a bog or scoured area that could drown the implement or you."

To Odermann, the river was also a "social highway," a natural gathering place where ranch families shared food, stories and support. It connected neighbors and built the foundation for a strong rural community. "There was a special camaraderie that existed between the Little Missouri River families," he says. "It tied us together."

Nature's Artboard

Each season transforms the river valley into a new masterpiece. Odermann paints a vivid picture of the river's moods: the snow-covered bottoms in winter, the green renewal of spring, the lush growth of summer and the golden hues of fall.

"The Little Missouri River is always beautiful, showcasing the changing seasons with pride," he says. "Every season has its own charisma that is mesmerizing to one who appreciates the artboard produced by nature."



Stretching across five North Dakota counties, the Little Missouri nourishes wildlife and livestock alike, sustaining life in one of the state's most dramatic landscapes. It is, in Odermann's words,

"a geological wonder that hydrates forage growth, waters multiple species and provides water for agriculture."

Resilience Through Flood and Change

The river's beauty can also be unpredictable. A river doesn't ask permission; it simply moves. It bends, carves, and finds a way through whatever stands in its path, because its very nature is to flow. Odermann remembers the 2011 flood, one of several high-water events that have shaped both land and lives.

"It did impact the community and the watershed, but life continued," he says. "God, through nature, is in control. We must be respectful of the resources entrusted to our care."

He reflects on the river as both a test and a teacher. "Are the decisions I make now creating a better world for those that follow me?" he asks, a reminder that stewardship of the river is an ongoing responsibility.

A River for All Seasons

To those who live, work and explore near it, the Little Missouri Scenic River offers countless opportunities to connect with nature. From the cottonwood-lined banks of Theodore Roosevelt's Elkhorn Ranch to the sandbars and buttes that invite solitude, it remains a refuge of quiet beauty.

"The Little Missouri River is a free-flowing watershed that provides an unbridled connection with nature," Odermann says. "It's a highway for social connections for ranchers, tourists and naturalists alike."

A Legacy of Recreation and Conservation

For Curtis Glasoe, SWA Stark County Director and president of the Maah Daah Hey Trail Association (MDHTA), the Little Missouri Scenic River is inseparable from the outdoor experience that defines western North Dakota.

One outstanding accomplishment was helping locate, design and construct the 144-mile Maah Daah Hey Trail through the Badlands alongside Russ Walsh – a project more than 15 years in the making. "The Little Missouri River is an important part of North Dakota history," he explains. "Our trail crosses it, giving non-motorized users a true river experience."

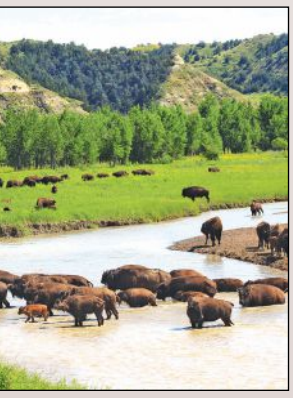
The river also enhances the visitor experience at Theodore Roosevelt National Park, providing a striking natural backdrop for hiking, photography and wildlife viewing. Today, recreation along the river includes seasonal rafting, canoeing, kayaking, snowmobiling in winter and hunting along the river flats.

From elk and bighorn sheep to wild turkeys and deer, the wildlife that thrives near the Little Missouri reminds visitors of the land's untamed spirit.

Finding Common Ground

As development and conservation intersect along the river's course, Odermann emphasizes balance. "There's common ground that allows for all to exist," he says. "We can protect the native geography and ecology of the river while using technology responsibly to extract underground resources."

Both Odermann and Glasoe share a hopeful vision, one where the Little Missouri continues to unite rather than divide. It remains, as always, a source of life, livelihood and connection for the people of western North Dakota.



The NDIRF Claims Process

By North Dakota Insurance Reserve Fund

It probably comes as no surprise to any North Dakota Insurance Reserve Fund (NDIRF) member that questions regarding the claims resolution process are among the most frequently asked. This article is intended to provide a broad overview of the claim volume handled by the Fund and the typical reporting and adjusting process.

First, let's do the numbers. NDIRF receives an average of 1,800 new claims every year. At any point in time, the claims department is handling around 500 open claims – 30-40% of which are in various stages of litigation. Total claim payments made in 2024 (the most recent full year for which figures are available) were approximately $7.2 million, including expenses for adjustment and legal representation. In 2024, open claim reserves (the money set aside for expected payments) consistently ran at approximately $9.4 million.

A variety of different types of claims are filed with the NDIRF. These range from the fairly common, such as injuries arising from an automobile accident, to claims involving more complicated issues such as drainage disputes and contract interpretation. In many instances, the facts and responsibilities are clear, allowing a claim to be resolved in a matter of days, while other situations may involve litigation lasting for years.

What happens when a Fund member has a claim, either their own (a "first-party" claim, such as hail damage to covered vehicles or equipment) or one where an injured third party is making a claim against the member? The normal procedure is to immediately contact your NDIRF agent and report the claim. The agent is paid a commission to service the member's account and a part of this service includes transfer to the NDIRF of claims information in a timely manner. A notice should also be provided to your agent, even when no formal claim has been submitted, in situations where you expect that a claim will eventually be made. Early reporting to your agent affords the NDIRF an opportunity to immediately investigate the circumstances of the incident and provide advice regarding further action.

Once notified of a claim, the agent completes a loss notice report and sends it on to the NDIRF. This is often accomplished by email to speed up claims reporting as time is always important and, in cases where litigation has been commenced, critical. A claim is set up on the NDIRF's computer system the day it is received and a file is created. An adjuster is assigned to the claim based on several factors including location, type of claim and complexity of the issues. If the claim has been placed in litigation, the NDIRF assigns an appropriate defense attorney immediately so that a response can be entered in a timely fashion.

Many claims can be adjusted in-house, meaning investigation by NDIRF staff adjusters using information gathered via telephone or email. When claims do require on-site investigation to determine liability or verification of repair costs, they are handled either by NDIRF staff adjusters or outside independent adjusters retained by the NDIRF, depending upon the location and complexity of the claim.

The NDIRF's underlying philosophy is to work with our members to reduce the likelihood of claims – but they do occur and their prompt, fair resolution is our goal.

THE NDIRF CLAIMS PROCESS

HOW TO SUBMIT A CLAIM TO THE NDIRF

NDIRF CLAIMS
Auto Accidents, Public Assets/ Mobile Equipment, Liability

Contact your local agent to report the claim. Your agent will complete a Loss Report/Incident Report.

Loss Report/Incident Reports are available at www.NDIRF.com>Submit a Claim.

Provide your agent with detailed information about the claim/incident and a Claim Contact name and phone number.

Submit all claim documentation to your agent.

Your agent will send the completed report and all documentation to NDIRFClaims@ndirf.com.

ND STATE FIRE & TORNADO FUND CLAIMS
Buildings and Structures

NDIRF MEMBERS

Contact your local agent to report a claim. Your agent will them complete an NDFT Property Loss Report.

NDFT Property Loss Report is available at www.NDIRF.com>Submit a Claim.

Provide your agent with detailed information about the claim/incident and a Claim Contact name and phone number.

Submit all claim documentation to your agent.

Your agent will send the completed report and all documentation to NDFTClaims@ndirf.com.

STATE AGENCIES

Complete an NDFT Property Loss Report.

NDFT Property Loss Report is available at www.NDIRF.com>Submit a Claim.

Provide the NDIRF with detailed information about the claim/incident and a Claim Contact and phone number.

Send the completed report and all documentation to NDFTClaims@ndirf.com.

STATE BONDING FUND CLAIMS

Complete a Notice of Claim.

Notice of Claim (SFN12199) form is available at www.NDIRF.com>Submit a Claim.

Provide the NDIRF with detailed information about the claim/incident and a Claim Contact name and phone number.

Send the completed Notice of Claim to BondingFund@ndirf.com.

Claims are received and reviewed by the NDIRF's in-house claims teams, and an NDIRF adjuster is assigned to the claim. The adjuster will reach out to the Claim Contact regarding the claim.

SUMMONS AND COMPLAINT

If your first loss notice is the service of a Summons and Complaint, attach a copy of it to the report you submit to the NDIRF.

***A Summons and Complaint must be responded to within 21 days from the date it's served. Failure to respond within this timeframe may result in a judgment being filed.**

QUESTIONS

Contact NDIRFClaims@ndirf.com for questions about liability, auto, or public assets claims; NDFT@ndirf.com for questions about property claims; and BondingFund@ndirf.com for questions about bonding claims.

Maddocks Named 2025 North Dakota Leopold Conservation Award Winner

Back: Shane Maddock, Travis Maddock, Justin Maddock, and Logan Maddock. Front: Vicki Maddock and Brian Maddock.

The Sand County Foundation, along with the North Dakota Grazing Lands Coalition, North Dakota Association of Soil Conservation Districts, North Dakota Stockmen's Association, and American Farmland Trust, selected Brian and Vicki Maddock of Maddock, North Dakota, to receive the 2025 North Dakota Leopold Conservation Award.

Aldo Leopold wrote that the oldest task in human history was to live on a piece of land without spoiling it. Throughout their ranching careers, Brian and Vicki Maddock have demonstrated this ethic by choosing to restore rather than abandon or exploit in the face of adversity.

The Maddock family's 4,000-acre ranch in the heart of the Drift Prairie physiographic region of northeastern North Dakota is one of North America's most important rangelands and depressional prairie pothole wetlands.

Brian and Vicki first farmed and ranched with his parents, Miles and Dorothea, on the original Maddock homestead. In the early 1980s, Brian and Vicki moved their family to the current farmstead and began farming and raising cattle. A significant portion of their ranching operation was adjacent to Devils Lake and was covered by water when the lake rose in the early 1990s. Forced to abandon a significant portion of the land, they pivoted to holistic grazing practices on the remaining grassland.

With assistance from the Natural Resources Conservation Service, they installed cross-fencing and water developments to begin rotationally grazing cattle in more than 20 paddocks. Raising more cattle per acre with better management helped them save their business by increasing productivity and sustainability. Conservation practices also safeguarded the ranch against future droughts in the region.

Over time, Brian refined his approach by adopting intensively managed grazing systems that prioritize soil health, forage diversity and long-term ecological stability. This adaptive mindset reflects Leopold's view that resilience is born from a deep understanding of natural systems and a willingness to work in harmony with them.

In the early 1990s, Brian seeded all the erodible cropland back to grass, but he noticed hilltops remained barren. Recognizing the need to rebuild soil fertility, he started feeding large round bales to cattle on hilltops to add nutrients to the soil. Within a year, vibrant rings of green grass began to emerge. He quickly embraced bale grazing as an important tool to rebuild soils and restore balance to the ecosystem.

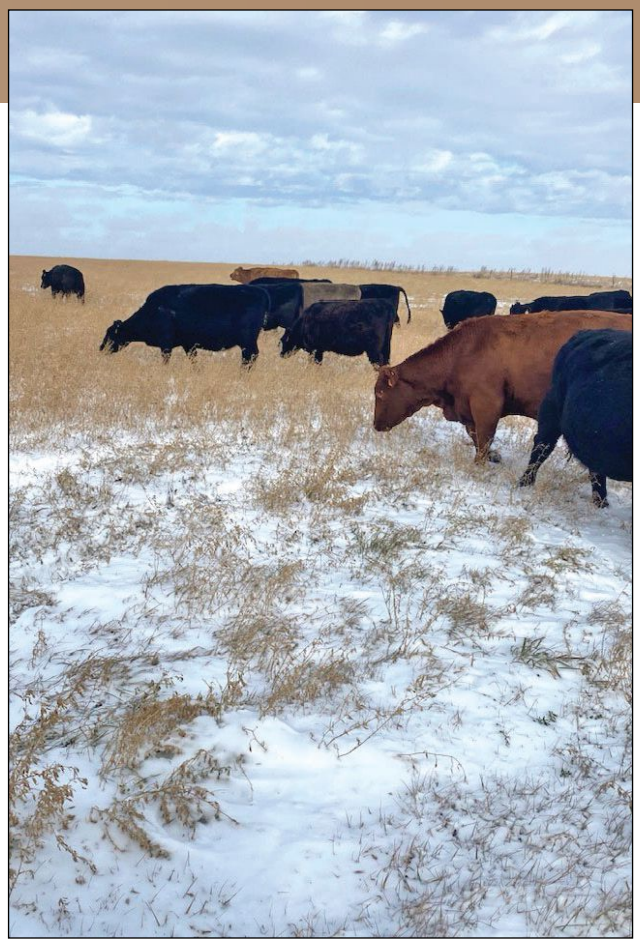
"The Maddocks have been conservationists when conservation was not cool," North Dakota State University Extension range specialist Kevin Sedivec said. "They knew implementing grazing systems would increase their bottom line while creating habitat for wildlife. They knew farming marginal lands was not good for the soil and would rarely be profitable. They take what they learn – both good and bad – and tell their story to help others succeed."

Brian and Vicki have instilled conservation values in their six children and 21 grandchildren, creating a multi-generational ripple of influence in the agricultural community. All their children work in the cattle and beef business, including three sons who ranch with their parents.

Together, the Maddocks have planted 10,000 feet of trees, seeded more than 900 acres of grass, and installed more than 100,000 feet of fencing to create more than 100 grazing paddocks. By installing miles of fencing along rivers and coulees, they have protected fragile riparian areas, prevented livestock from eroding streambanks and reduced sedimentation in waterways.

By growing full-season cover crops, they have enriched habitat and provided valuable food sources for wildlife, while improving soil health and reducing erosion. Expanding water infrastructure with 14 miles of pipeline and 40 water tanks ensures sustainable water distribution for livestock and wildlife while minimizing environmental impact.

By embracing regenerative agriculture, the Maddocks have sustained their livelihood and safeguarded the critical landscape they call home. Their stewardship of soil, water, plants, and animals demonstrates that conservation is a way of life, not just a practice.



Downtown Minot Transformed by Flood Protection Work

In the 13 years since the Mouse River Enhanced Flood Protection Project (MREFPP) launched its ginormous multi-decade, billion-dollar project spanning four counties in northwest North Dakota, so many things have been learned, and the progress has been life-changing for the communities it impacts.

MREFPP was broken into Milestones and Phases to understand how all of these areas connect and look at what areas of critical infrastructure need to be protected earlier in this project.

Milestone 1 was completed in 2022, while concurrently working on phases of Milestone 2, which include Phase MI-6 Downtown as part of the overall plan. Phase MI-6 Downtown spans from north Main Street in Minot's historic downtown area and continues east along the railroad tracks and river past Eighth Street SE. The phase ultimately ended in Roosevelt Park. Phase MI-7 Roosevelt Park and Zoo will be featured in a future issue of the *North Dakota Water* magazine.

Phase MI-6 has a multitude of phases within this one project; the first phases are located between Seventh Street NE and Third Street NE, connecting right up to the Third Street Bridge. Future portions of Phase MI-6 will occur to the west of Third Street Bridge into the downtown railroad crossing area, which includes three different railway entities: CPCK, BNSF and Amtrak. Features of this phase include concrete floodwalls, earthen levees, roadway changes, utilities, a gatewell, and a stormwater pump station with a gatewell.

The MREFPP connects many neighborhoods and winds through the city. Blending neighborhoods into this massive infrastructure project took a lot of planning. Some concrete floodwalls will be similar in height, pattern and color to the Phase MI-1 Fourth Avenue NE floodwalls, with some extending an average of 13 feet above the finished grade. The floodwall portion along Central Avenue will still be similar in height, with a slightly different pattern and color to tie into the new pump station within Roosevelt Park and the additional floodwalls within Roosevelt Park and Zoo. Earthen levees will be seeded and become a natural green space when complete, and many of them will have a walking path on top of the levee to create additional amenities for the community.

7th Street NE bridge facing west into downtown Minot.

Construction on Phase MI-6B started in the fall of 2024, with the general contractor placing pre-consolidation piles, installing a temporary access road to Roosevelt Park and completing some home inspections before stopping for winter. Pre-consolidation piles help provide

Gatewell along the riprap on the Mouse River.

Trenching machine for the flood wall footings.

an understanding for the engineering staff by testing soil to see how the soil reacts to the weight of the levee so spring construction can move forward. There was also work over the winter within the dead loops. Due to a favorable winter and early spring warm-up, crews were able to start work about six weeks earlier than anticipated in the spring of 2025.

In 2025, a lot of infrastructure progress was made. As this is in a very aged and historic part of Minot, much of the infrastructure was not replaced when the 2011 flood occurred, knowing this milestone would come into play later within the Preliminary Engineering Report (PER). With aged infrastructure comes a lot of surprises with hidden utilities and older city infrastructure that is not even documented on current plans. This area of Phase MI-6 includes resident homes and businesses along the main corridor of travel, so there are other considerations to make sure services are continuing. Another large project in this area was the replacement of the Central Avenue gatewell, which meant three months of Central Avenue being torn up with no access to pedestrians or the driving public. Residents and businesses partnered well with our crews and now the street, sidewalks, curbs and gutters look wonderful.

Flood wall footings for the wall panels on the north end of the project.

Within this summer of construction, the water main bore and seepage barrier installation have been completed. Excavation for pump station footings and the pump station itself has started to look closer to what the final structure will look like when completed. Public utilities work was completed, along with the repaving of Fourth Street SE.

New pump station facing south.

The largest changes in the landscape were the earthen levee being placed, the floodwall footings being poured and all floodwall panels being placed before the end of the construction season in 2025. While there is still a lot of work to accomplish for the completion of Phase MI-6 Downtown to meet final inspection, significant progress on the project has been made since it started in the fall of 2024. The project's final completion date is scheduled for June 2028.

Close-up of the new pump station inside the entrance of Roosevelt Park.

Part 1 of 2

The Next Garrison Diversion Unit Challenge

CLAY CARUFEL
North Dakota Department of Water Resources

If you've been reading the Educate, Advocate, and Engage (EAE) articles, you've learned that the construction of Garrison Dam is the most significant water project in North Dakota's history.

The dam brought many benefits including flood risk reduction for communities like Bismarck-Mandan, a reliable water supply for many, recreation opportunities on Lake Sakakawea, and cost-effective hydropower to the region.

The dam also came with costs, some foreseen and some not. The citizens and State of North Dakota must now navigate a federal presence on the river with the United States Army Corps of Engineers (USACE) operating the dam. In addition, there is continual bank erosion and decline of cottonwood trees downstream of the dam, and some animal species have been negatively impacted by the Missouri River dams.

Another cost is all the productive land lost under Lake Sakakawea, the reservoir created by Garrison Dam. USACE acquired 462,500 acres of river bottom and grazing lands from private landowners and Fort Berthold Indian Reservation to create the reservoir. River bottomlands are typically the most productive lands in a region with their rich soils and high biodiversity. When full, Lake Sakakawea covers about half of the Missouri River's length in North Dakota. Add in Lake Oahe, the reservoir created by Oahe Dam south of Bismarck-Mandan, and around 70% of North Dakota's Missouri River miles, some of the most productive bottomland in the state, have been lost under the reservoirs.

North Dakota leadership was aware there would be a loss of Missouri River bottomlands under the 1944 Flood Control Act (FCA), which authorized the construction of five mainstem dams, including Garrison and Oahe Dams, and brought the older Fort Peck Dam into operation with the newer dams. However, they were assured that the price of the river bottomlands would be paid in full. In particular, North Dakota would get infrastructure to support irrigation of 1,266,440 acres of previously unirrigated land, flood protection, hydropower benefits, and infrastructure to deliver water to the James and Sheyenne Rivers for drinking water and pollution reduction. The federal government initially planned to send the water from the Fort Peck Dam through a network of canals, reservoirs, and pumps called the Missouri-Souris Unit.

Of the newly irrigated lands, 1,166,600 acres were to be in North Dakota's Mouse (Souris) River basin from Crosby to Mohall. Further study of the lands in the Mouse River basin revealed that much of the land was not suitable for irrigation due to dense glacial till being the predominant subsoil in the area, meaning poor drainage and damage to the land was likely if it was irrigated. The Bureau of Reclamation (USBR) found new lands farther east and in central North Dakota that had more suitable subsoils for irrigation. The USBR then recommended that 1,007,000 new acres of land in North Dakota be irrigated, a reduction from the original 1,266,440 acres. Given the location of the newly identified lands, the federal government began to rethink the planned water diversion from Fort Peck Reservoir and instead consider a diversion from Lake Sakakawea in North Dakota.

Congress authorized the Garrison Diversion Unit (GDU) through Public Law 89-108 in 1965. The approved plan was for initial development of the 1,007,000 newly identified acres to be irrigated in North Dakota plus other water supply, recreation, and water quality benefits. The first phase of this development would include irrigation of 250,000 acres; municipal, rural, and industrial (MR&I) water supply for fourteen North Dakota towns and cities; fish and wildlife enhancement at thirty-six areas; and


Snake Creek Pumping Plant


McClusky Canal


Snake Creek Embankment

recreation development, including restoration of Devils and Stump Lakes. The principal supply works for the initial development included the Snake Creek Pumping Plant (SCPP), McClusky Canal, and Lonetree Reservoir, to be constructed by the USBR.

In addition to the loss of productive river bottomlands, the creation of Lake Sakakawea led to the relocation of communities, highways, railroads, and utilities. One of these relocation routes was the Snake Creek Embankment (Embankment), named for the creek it had crossed. Constructed in 1952, the Embankment provided a reroute of U.S. Highway 83, the Minneapolis St. Paul and Sault Ste. Marie Railway, and telephone and power transmission lines over Lake Sakakawea. Later, federal planners decided that the Embankment would be used as part of the GDU. The SCPP would pump water from Lake Sakakawea, through Snake Creek Embankment, and into Snake Creek Reservoir (known today as Lake Audubon). McClusky Canal would then transport water from Snake Creek Reservoir to Lonetree Reservoir and other locations in central and eastern North Dakota. Construction of the SCPP and the McClusky Canal were completed by the USBR in 1976.

As construction of the GDU progressed in the 1970s, the first conflicts around it began. Canada was concerned about biota and other contaminants being transferred from the Missouri River to the Hudson Bay watershed, environmental groups were uneasy about the number of wetlands that would be lost if the GDU was built to completion, rising costs for the project were making it more difficult to construct, and some local farmers complained about losing their productive farmland to the project so that other farmers' land could be irrigated. The GDU found itself on President Carter's federal water project "hit list" in 1977 due to the growing opposition.

In 1981, it seemed that Congress might eliminate funding for the GDU. However, instead of eliminating the project, the Garrison Diversion Unit Commission (Commission) was created. The legislation enabling the Commission acknowledged that a moral commitment had been made to North Dakota and the other upper Missouri River basin states and tribes with the passage of the 1944 FCA. North Dakota had given up hundreds of thousands of acres for the benefit of the nation and was deserving of a large-scale water project.

The Commission was charged by Congress with reformulating the GDU and meeting North Dakota's contemporary water needs. The Commission recommended that the GDU be retooled to focus on MR&I water supply rather than irrigation. The Commission's recommended plan proposed providing water supply to 130 towns and rural areas in North Dakota, irrigating of 130,940 acres (a reduction from the 1,007,000 previously authorized acres), and requiring treatment of all water being diverted out of the Missouri River basin. The Commission's recommendations were enacted by Congress with the 1986 Garrison Diversion Unit Reformulation Act, authorizing funding for fulfilling the Commission's recommendations. The GDU was again modified by the 2000 Dakota Water Resources Act, which included additional federal funding for large-scale water supply projects but restricted federally subsidized irrigation in some places where it was previously authorized.

Now, a new challenge around the future of the GDU is taking place. USACE, the owner of the Snake Creek Embankment, has found structural issues with the Embankment and believe they may need to draw down Lake Audubon during severe droughts. A draw down could restrict flows to McClusky Canal, undermining the GDU's water supply, irrigation, and recreation purposes. Part two will cover this issue more in the December *ND Water* Magazine.

The Oxbow

FROM THE DEPARTMENT OF WATER RESOURCES

120 YEARS OF THE NORTH DAKOTA OFFICE OF THE STATE ENGINEER

In 1905, the North Dakota Legislature officially created the Office of the State Engineer. Over the past 120 years, the office has been at the center of nearly every chapter of the state's water story. From early irrigation projects to modern-day megaprojects, from drought relief to flood protection, the state engineer's work has been inseparable from North Dakota's growth and resilience.

A FOUNDATION BUILT ON WATER

The idea for a state office devoted to water management predates its official founding. At North Dakota's Constitutional Convention in 1889, Maj. John Wesley Powell of the U.S. Geological Survey urged delegates to protect water resources for the people rather than allow private monopolies to control them. His message resonated, and the state constitution declared that all flowing streams and natural watercourses would forever remain the property of the state.

Fifteen years later, the Office of the State Engineer was established. E.F. Chandler, a geology professor and hydrographer, served as the unofficial first state engineer in 1904, laying the groundwork by drafting North Dakota's first irrigation code. In 1905, Gov. Elmore Sarles appointed A.L. Fellows as the first official state engineer. The fledgling office began with just a few staff members and borrowed furniture in a corner of the Capitol.

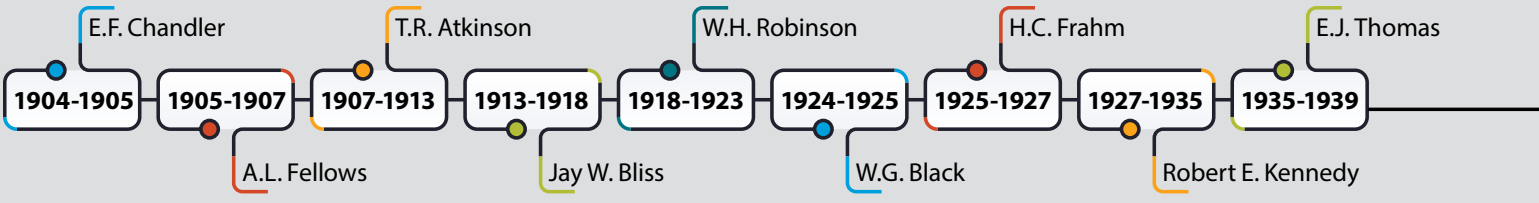
IRRIGATION, FLOODS AND DAMS

The early duties of the state engineer reflected the priorities of a frontier state: irrigation, drainage and the allocation of water rights. As farmers sought ways to make the most of North Dakota's unpredictable climate, the office provided technical expertise and permitted projects that allowed agriculture to flourish.

Over time, its responsibilities expanded. In 1909, the Lower Yellowstone Irrigation Project became North Dakota's first major irrigation effort, marking the beginning of large-scale water development. By the 1930s, as the state reeled from drought and the Dust Bowl, water management took on a new urgency. The legislature responded in 1937 by creating the State Water Conservation Commission, with the state engineer serving as its chief engineer and secretary. This partnership brought new authority and resources, positioning the office to shape projects like Garrison Dam, Heart Butte Dam and Jamestown Reservoir – massive undertakings that transformed flood control, water supply and recreation in the state.

Over the years, the responsibilities of the state engineer expanded well beyond irrigation. The office's technical expertise was often called upon for a variety of state needs – from inspecting mines to advising on transportation and infrastructure. These roles reflected a growing trust in the

NORTH DAKOTA'S STATE ENGINEERS



> "When you look back at **120 years** of history, you realize this work has always been about one thing- serving the people of North Dakota."
>
> JOHN PACZKOWSKI, P.E., STATE ENGINEER (2020-PRESENT)

office's engineering capabilities and its central place in North Dakota's development, all while water management remained at the heart of its mission.

BECOMING NORTH DAKOTA'S WATER AUTHORITY

By the second half of the 20th century, the state engineer's role had become firmly established as the hub for water management. The office issued water permits, reviewed drainage projects, and oversaw floodplain management after the passage of the Floodplain Management Act of 1981. In 1989, sovereign lands management – responsibility for the state's non-mineral interests in navigable waters – was transferred to the office, adding yet another layer of oversight to ensure that development along rivers and lakes served the public interest.

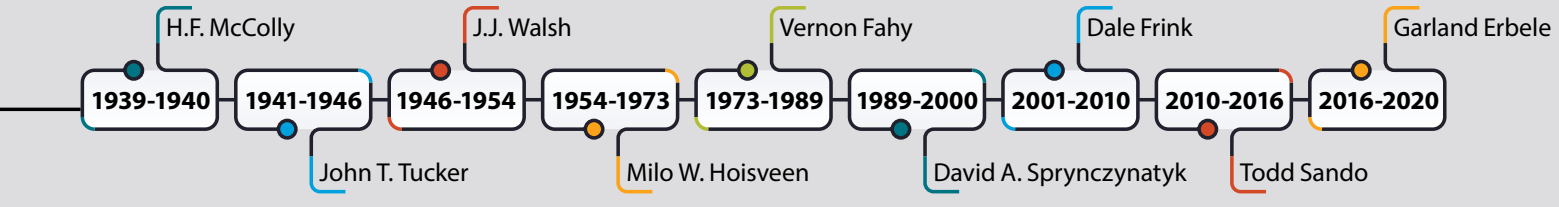
At the same time, the office continued to work closely with the State Water Commission to carry out large-scale water projects. The Southwest Pipeline Project and the Northwest Area Water Supply Project, both launched in the late 20th century, promised to deliver safe and reliable drinking water to communities across wide swaths of the state. By the time the office marked its centennial in 2005, it was deeply involved in both technical and policy questions that would shape North Dakota's future.

THE LAST TWENTY YEARS

The two decades since that centennial have been among the busiest in the office's history. The Southwest Pipeline and Northwest Area Water Supply projects advanced significantly, extending treated water to more communities across central and western North Dakota. Sovereign lands management grew in importance as recreation and development pressures increased along the state's rivers and lakes.

The oil boom of the 2010s brought new challenges, as the office issued water permits to support energy development in the west while balancing the long-term sustainability of supplies. A renewed focus on dam safety addressed risks at low-head dams, improving public safety statewide. Meanwhile, the office undertook two of the most complex permitting efforts in its history: the Fargo-Moorhead Diversion Project, designed to protect the Red River Valley from devastating floods, and the Red River Valley Water Supply Project, intended to provide drought protection for much of eastern North Dakota.

Perhaps the most significant institutional change came in 2021, when House Bill 1353 elevated the Department of Water Resources to cabinet-level status. The legislation created a director position to lead the agency, with the state engineer serving under that director. This marked a new era of leadership and visibility for the office.



THE ATMOSPHERICRESERVOIR
Examining the Atmosphere and Atmospheric Resource Management

A SURPRISING SEPTEMBER

By Mark D. Schneider

The month of September usually brings to mind drier conditions, harvest weather, leaves changing color, and cooler temperatures. This year, Mother Nature had something else in mind for North Dakota, including a record number of tornadoes, abundant rains over central North Dakota, and above-normal temperatures for much of our state. Looking at the numbers, there were 20 confirmed tornadoes by the National Weather Service during the September 14 outbreak, bringing our yearly total to 80 tornadoes. This toppled our previous annual record of 61 tornadoes in 1999. The photo on the right shows tornado damage to a mobile home near Denhoff that was rolled several times during the September 14 outbreak.

Photo Courtesy of National Weather Service Bismarck Storm Survey.

September's precipitation provided much-needed soil moisture across the state and even though harvest was delayed in certain areas, farmers and ranchers were thankful for the rains that will help conditions for next growing season. Central North Dakota received an abundance of precipitation from September 13-19 when Bismarck recorded 4.08 inches, or more than its normal meteorological fall (September 1 through November 30) average of 3.84 inches. The result of the widespread rains in September was that the *Drought Monitor* finally depicted all of North Dakota in drought-free conditions. The last time this occurred was July 2022.

If September felt warm, that's due to the above-average temperatures recorded statewide. The table shows that major reporting stations ended the month about three to five degrees Fahrenheit above average. There weren't many record highs for the month; however, many days saw highs in the 80s and 90s and low temperatures in the 60s, which were well above average.

Looking ahead to winter, North Dakota's temperatures and precipitation will be difficult to predict because the long-range seasonal forecasts just aren't showing strong signals. The one surety though is that September won't be forgotten anytime soon.

Location	Above Average September Monthly Temperatures
Bismarck	+4.6F
Dickinson	+4.9F
Fargo	+4.5F
Grand Forks	+5.0F
Jamestown	+3.7F
Minot	+2.8F

North Dakota Department of Water Resources | Data & Atmospheric Resources | 1200 Memorial Highway, Bismarck, ND 58504
(701) 328-2788 | dwr.nd.gov

ND Weather Modification Association | PO Box 2599 | Bismarck, ND 58502 | (701) 223-4232

Federal Water Funding in 2025: NAVIGATING CHANGES

Projecting how Congress will budget in the coming years may feel a bit like playing the lottery or looking into a Magic 8 Ball. Priorities shift, and cuts can come in unexpected places. The year 2025 has exemplified this unpredictability, with significant changes to federal funding programs that support water infrastructure and resiliency. This article outlines changes we've seen to some of our primary water funding sources in 2025 and sets the foundation for how priorities may shift in the federal 2026 budget.

FEMA

Following President Trump's inauguration in January 2025, federal priorities shifted, impacting many of our key funding sources. One of the most notable changes was the termination of FEMA's Building Resilience Infrastructure and Communities (BRIC) Program. BRIC awards from fiscal years 2020-2023 were canceled, with FEMA stating the program was cancelled due to wasteful and politicized agendas that didn't support the core mission of disaster recovery.

As a result of this cancellation, North Dakota communities lost more than $20 million in grant funding for local water and wastewater projects. While the Hazard Mitigation Grant Program (HMGP) remains available through North Dakota Department of Emergency Services, its smaller funding pool leaves a gap for large-scale resiliency projects that previously relied on BRIC or its predecessor, the Pre-Disaster Mitigation Program.

BOR WATERSMART

The Bureau of Reclamation's (BOR) WaterSMART program, which includes a portfolio of 11 grant programs focused on conserving water and improving water supply reliability; drought planning and resiliency upgrades; and developing tools and data to support water management. Since spring 2025, WaterSMART funds have been frozen pending a federal review to align guidance with White House priorities.

Although many feared permanent cuts, recent updates to the WaterSMART website suggest that some programs may continue. The language remains vague, stating that the next funding opportunity is "under development." Time will tell whether WaterSMART emerges intact from the 2025 budget shifts.

USDA RURAL DEVELOPMENT

USDA's Water and Waste Disposal Loan and Grant Program is a cornerstone for rural water infrastructure, offering extended terms and grant support for affordability. However, the agency has experienced significant changes in staffing, as well as policy on grant funding. According to recent data collected by the *New York Times*, USDA lost nearly 13,000 employees in the last year. North Dakota's USDA offices were not exempt from these cuts, and the Rural Development staff that support the Water and Environmental Program (WEP) were significantly cut. While staff remain available, systems should prepare for extended processing times.

Additionally, USDA has changed its approach to WEP, shifting away from offering grant funding and emphasizing low interest loans with limited grant availability. Grant funding is being prioritized for communities facing both affordability constraints and health and safety concerns – where previously, affordability alone was sufficient.

EPA

The Environmental Protection Agency's (EPA) Drinking Water and Clean Water State Revolving Funds (SRF) remain untouched by 2025 cuts, which is welcome news for water systems. This includes the funding from the Infrastructure Investment and Jobs Act (IIJA) for lead service line replacement, emerging contaminants, and general supplemental loan and loan forgiveness funds.

Importantly, SRF funds in North Dakota are administered by state staff, insulating them from federal staffing reductions. However, EPA as a whole has seen cuts – approximately 1,600 federal staff members let go this year. Projects working directly with EPA have experienced delays due to staff reassignments and vacancies.

LOOKING AHEAD TO THE 2026 BUDGET

Despite staffing reductions and shifting federal priorities, some core water infrastructure programs – like the EPA's State Revolving Funds – remain stable for now. However, uncertainty continues to surround many other funding sources. As we look toward the federal 2026 budget, we should expect cuts to several programs and agencies discussed here, although the extent remains unclear. At the time of writing, the government is under a shutdown, and conversations have shifted from long-term budgeting to a continuing resolution aimed at reopening federal operations.

Our Water Keeping it Clean

North Dakota Department of Environmental Quality

LakeSense and Satellite Data: A New Approach to HAB Monitoring

Meridith Miller, Environmental Scientist
North Dakota Department of Environmental Quality

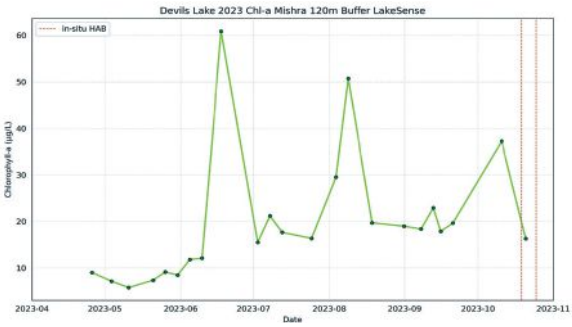
NASA DEVELOP's Earth Science Division recently partnered with the North Dakota Department of Environmental Quality's (NDDEQ) Watershed Management Program to utilize remote sensing to assist with the state's Harmful Algal Bloom monitoring program. NASA DEVELOP is a program that works with state agencies and other organizations on short-term research projects. These projects use NASA technology to address local environmental challenges.

Harmful Algal Blooms (HABs) occur seasonally in North Dakota lakes and reservoirs. HABs occur when there is an overgrowth of cyanobacteria in the water, which can produce dangerous toxins, such as microcystin. Microcystin and other cyanotoxins can cause illness or even death for domestic animals, wildlife, cattle or humans if ingested (US EPA). Farming, leaking septic systems and livestock activities across the state have increased nutrient and sediment which lead to an increased HABs. Due to limited staff and resources, monitoring the nearly 300 lakes and reservoirs in North Dakota for HABs is challenging. NDDEQ relies on reports by the public to monitor and investigate HABs.

This NASA DEVELOP project tracked long-term changes in lake water quality indicators (LWQI) in five lakes across the state using a lake water quality analysis tool called LakeSense. LWQI from Bowman-Haley Reservoir, Jamestown Reservoir, Patterson Lake, Devils Lake, and Lake Ashtabula were monitored using Earth observation data from three satellites collected between 2018 and 2024. The project worked to identify trends in algal bloom indicators to track HABs, including:

- Chlorophyll-a: a sign of how much algae is in the water
- Turbidity: how cloudy or muddy the water appears
- Secchi depth: a measure of water clarity.

When chlorophyll levels are high, turbidity increases and water clarity drops, this is a sign that a HAB may be developing.



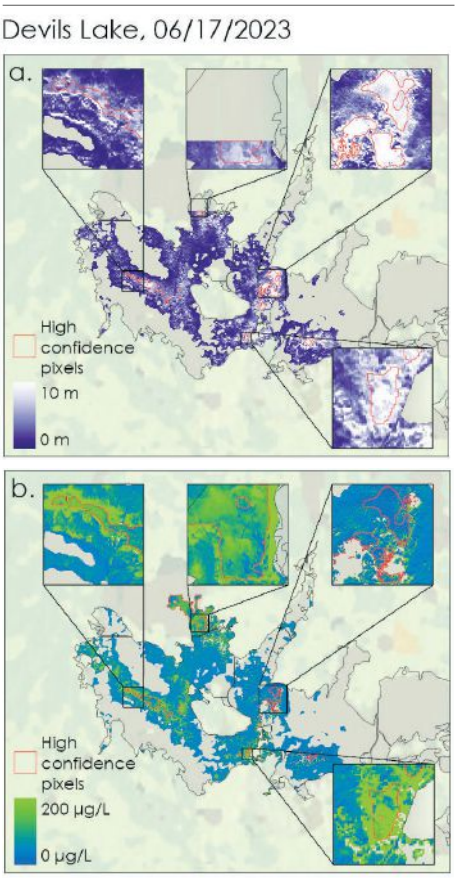
Chlorophyll-a values in Devils Lake, 2023.

Earth observation data was collected from Landsat 8/9 satellites and the European Space Agency's (ESA) Sentinel-2 satellite. A data processing program called LakeSense was used to derive chlorophyll-a, turbidity, and Secchi depth readings. Field data, including chlorophyll-a and Secchi depth readings, was compared to the calculated LWQI to validate the processes.

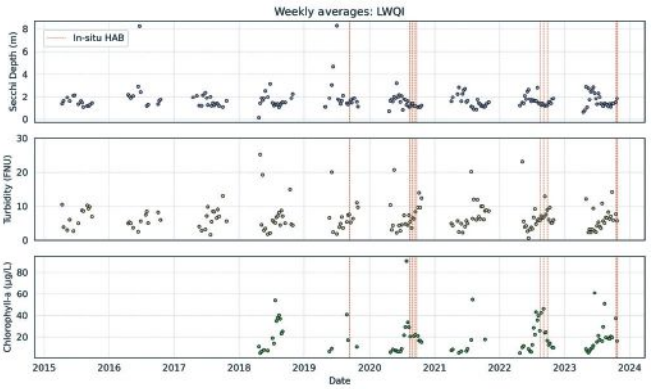
RESULTS

Devils Lake was one of the lakes chosen for developing the LakeSense tool because of its size and popularity for recreation. The NASA DEVELOP team created spatial distribution maps (below) of Secchi depth and chlorophyll-a. The areas of lower water clarity closely aligned with the areas of higher chlorophyll-a values.

Changes in chlorophyll-a values in 2023 are also shown below. Increases in chlorophyll-a may indicate an algal bloom. The NASA DEVELOP team also



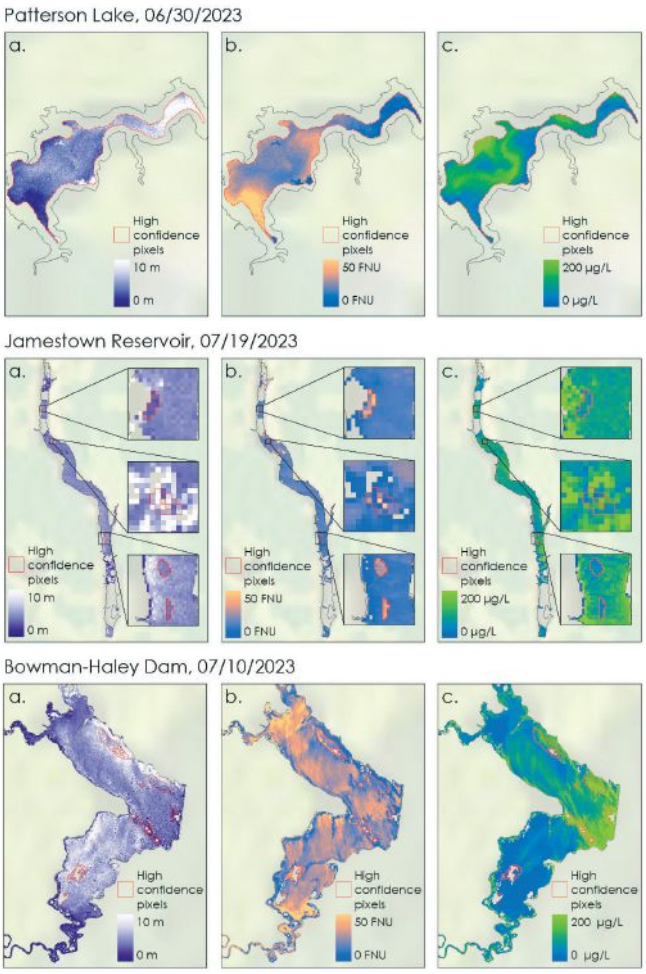
Snapshots of conditions on Devils Lake, a. Secchi depth and b. chlorophyll-a.



Timeseries plots for Secchi depth, turbidity and chlorophyll-a in Devils Lake, 2018-2023.

created timeseries plots for chlorophyll-a, turbidity, and Secchi depth, vertical lines were added to indicate when NDDEQ took a HABs sample. The samples occurred during peaks in chlorophyll-a and turbidity and drops in Secchi depth values.

Spatial distributions for Secchi depth, turbidity and chlorophyll-a for Bowman-Haley Dam, Jamestown Reservoir, and Patterson Lake are shown below on the date of the highest chlorophyll-a peak in 2023. Results indicated that the summer months between June and August had the highest values for chlorophyll-a and turbidity, and the lowest Secchi depth values, indicating poor water clarity, and highest potential for HABs during these months.



Snapshots of spatial distribution of Secchi depth (left), turbidity (middle) and Chlorophyll-a (right) for Bowman-Haley Dam, Jamestown Reservoir and Patterson Lake.

The project team determined that combining NASA and ESA Earth observations with the LakeSense tool provides a feasible approach for analyzing LWQI across North Dakota's diverse lakes. The remote sensing data is a valuable resource for supplementing field data. The Earth observation data adds valuable monitoring information for lakes that are not easily accessible for NDDEQ staff.

The findings from this study will help NDDEQ staff and partners identify areas within lakes that are especially prone to poor water quality and potential HAB occurrences, supporting more targeted monitoring efforts.

Future projects may include development of a algal bloom dashboard to increase public education on drivers, indicators, and changes in HABs across North Dakota. Additional testing will include further developing the LakeSense tool for other lakes across the county and identify ways for NDDEQ to integrate Earth Observations into the HABs monitoring program.

CONCLUSIONS

- Remote sensing through the LakeSense application creates accurate representations of LWQI trends and HAB occurrences.
- Results indicated that high chlorophyll-a concentrations, high turbidity, and low Secchi depth are generally observed between June and August.

Special thanks to NASA DEVELOP's North Dakota Water Resources Team for leading this research. *This material is based upon work supported by NASA through contract 80LARC23FA024. All images in this article are courtesy of NASA Develop Boston, Massachusetts. This material contains modified Copernicus Sentinel data (2015-2024), processed by ESA.*

For more information on the North Dakota HABs Monitoring Program, or the NASA DEVELOP project, contact Brian Houle at 701-328-5193 or bhoule@nd.gov, or visit https://deq.nd.gov/WQ/3_Watershed_ Mgmt/8_HABS/Habs.aspx .

US EPA. 2025. Harmful Algal Blooms (HABs) in Waterbodies. https://www.epa.gov/habs

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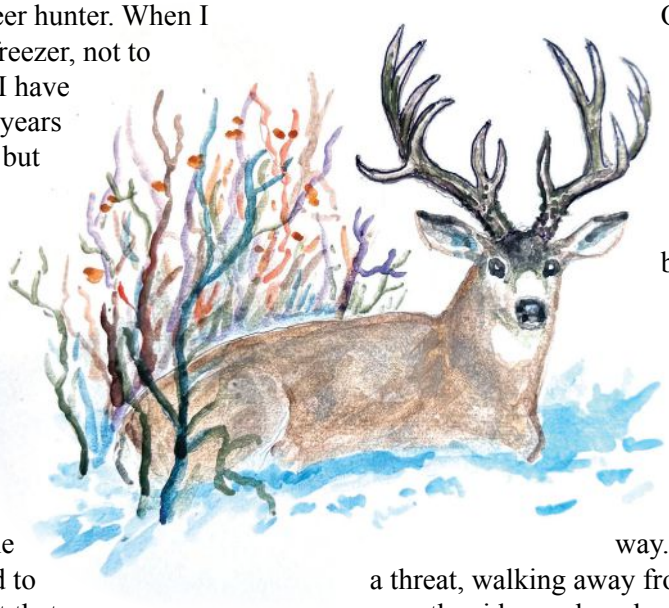
701-328-5210 | *www.deq.nd.gov*

THE Timmer Chronicles

By Scott Nelson

I've never been much of a deer hunter. When I did get a deer, it was to fill the freezer, not to hang horns on the wall. I guess I have got some decent-sized bucks in years past, both muley and white tail, but I hunted mostly for body size instead of big antlers. Like someone once said, "You can't eat the horns, no matter how long you cook them."



Old wise white tail bucks can be very smart, but I don't think anything is smarter than an old muley buck. One hunting season years ago, we had a huge mule deer buck in the area. The whole country seemed to be after him but he was so smart that he eluded all comers. He spent quite a bit of time on our land but easily avoided my attempts at him. I had only one real good look at him as he ran, going over a hill a quarter of a mile away. Even at that distance his antlers looked HUGE and he gave me a bad case of buck fever. I walked many miles, snuck over many ridges and peered through binoculars at tons of deer but could never catch that old mule deer buck unawares.

It was the last day of the season and by this time I had given up on the old buck. It was cold with snow and a brisk northwest wind. I was feeding our cattle where we wintered them at the old Bullinger place when something caught my eye about half a mile east in some brush on a hillside. Looking through the binoculars, I saw a group of around 10 muley does and fawns and off to the side near a bull berry bush, there he was, with antlers bigger than ever, the old muley! I couldn't believe my luck! He was staring right back at me but with half a mile between us, he wasn't spooked.

Now, how to get to him. A straight-on approach was out. He'd pull out before I made it 100 yards. Coming in from the north was no good as he'd wind me and be gone. OK, don't blow this, use your head, I told myself. I decided to walk south, drop over the ridge, follow the bottoms east out of sight, come north downwind of him, then sneak over the hill and catch him in his bed with a 200-yard shot.

I grabbed my gun and headed south. I even angled away to the southwest to make it look good. Right before I dropped over the ridge, I looked back through the binocs. Old muley was still in his bed, looking my way. I figured he wouldn't see me as a threat, walking away from him like that. Then I dropped over the ridge and made my way east. With the soft snow and strong wind, I knew he wouldn't hear me. I had that old buck for sure. I was envisioning winning every big buck contest in the area as I made my way.

It took an hour and a half to finally climb the hill and soldier crawl over the crest into position. I used some sage brush for cover as I steadied the rifle. There they were. All the does and fawns were there but where was the buck? I knew right where he'd been laying but there was no sign of him. I looked through the scope until my eyes ached. I thought he may have moved to another spot but I couldn't find him anywhere on that hillside. Out of desperation, I finally stood up. The does and fawns saw me but were more curious than scared. They eventually bounded off but the buck was nowhere to be seen.

I walked over to where the buck had been laying and saw the wind had already blown snow over his bed. He had pulled out as soon as I had taken that one last look and dropped over the ridge over an hour before. The only thing I can figure is that old buck had read my mind. I have no other explanation for it. I don't think anyone ever got that buck and he probably died of old age.

See yuh next time, Scott.

2025 RRVWSP Construction Progress

Crews started the 2025 construction season early thanks to a mild spring. Now they are hoping the weather will hold out this fall so they can continue pipe installation as long as possible. In 2024, construction wrapped up in November. If conditions cooperate again this year, the Red River Valley Water Supply Project (RRVWSP) could enjoy an almost unheard of seven-month construction season. As of mid-October, 28 miles of the 125-mile buried pipeline are in the ground.

"We are making good progress," says Kip Kovar, deputy program manager for RRVWSP Engineering and Garrison Diversion Conservancy District engineer. "We currently have 33 miles of pipeline under contract to construct, plus more than 40 miles of shovel-ready pipeline installation.

Carstensen Contracting Inc. focused on contracts 5D and 6A this year. Contract 5D includes 10 miles of pipeline and a trenchless crossing of Pipestem Creek in western Foster County and eastern Wells County while Contract 6A involves the installation of a 7.1-mile transmission pipeline from the James River to Eastman Township in Foster County. So far, 9.2 miles are installed on 5D and 2.0 miles are in on 6A.

Meanwhile, Garney Construction worked on land restoration, structure build out, hydrostatic testing, and soil haul off for Contract 5B, east of Carrington, where the entire nine-mile stretch of pipeline is in the ground. Oscar Renda Contracting installed 6.3 miles on the eight-mile Contract 5C pipeline thus far.

When the RRVWSP transmission pipeline is complete, it will span from the McClusky Canal to the discharge structure, which empties into the Sheyenne River, about six miles south of Cooperstown. The Missouri River intake pumping station wet well, intake screen structure, and tunnel are complete. The outfall discharge structure on the Sheyenne River is also already constructed.

Aerial view of Contract 6A in Foster County, where Carstensen Contracting is installing a 7.1-mile transmission pipeline from the James River to Eastman Township in Foster County.

Garrison Diversion General Manager Looks Back on 10 Years of Progress

The past 10 years have flown by according to Duane DeKrey. This year marks a decade since his promotion to general manager of Garrison Diversion Conservancy District (Garrison Diversion). Over the past decade, Garrison Diversion has seen a lot of success, especially with the beginning of construction on the Red River Valley Water Supply Project (RRVWSP) and a drought mitigation project co-sponsored by Garrison Diversion and the Lake Agassiz Water Authority.

"I feel extremely lucky to be sitting in the general manager chair currently. I think back to some of the previous managers, who became North Dakota Water Hall of Fame awardees, who had the same dreams and goals of fulfilling the promise of water to central and eastern North Dakota," DeKrey says. "They worked just as hard and, in many ways, laid the foundation that I have been able to capitalize on to get the Red River Valley Water Supply Project started."

Prior to working for Garrison Diversion, DeKrey served in the North Dakota House and Senate for 20 years and served on the Natural Resources Committee where he became more familiar with Garrison Diversion. "When members of the Garrison Diversion board of directors asked me to put in an application for the general manager position, I thought it would be a very good fit. I was a project engineer in the North Dakota National Guard for many years, which I believed would be valuable for the management of the Red River Valley Water Supply Project," DeKrey says.

Garrison Diversion's mission to provide a reliable, high-quality and affordable water supply to benefit the people of North Dakota resonated with DeKrey because he grew up on a farm without an adequate supply of water. The work of Garrison Diversion was well known in North Dakota at that time due to the high-profile Garrison Diversion Unit (GDU) effort that was underway. The GDU included plans to provide municipal and industrial water, fish and wildlife development, recreation opportunities, flood control, and irrigation of 250,000 acres.

Duane DeKrey

"As a young boy, Garrison Diversion was in the news just about every day – from the all-out effort of North Dakota lawmakers at home and in DC trying to get the full promise of the project out of the federal government and environmental struggles with Canada to low commodity prices and over-production at the time which made all the irrigation seem irresponsible. I always felt any project that relieves a water shortage should be pursued," DeKrey explains.

Though the GDU concept was not fully realized, the RRVWSP began to take shape around the turn of the century. Five years into DeKrey's tenure as general manager, construction on the state portion of the RRVWSP began.

"The biggest accomplishment of the last 10 years is getting the federal government to approve a record of decision (ROD) on the Eastern North Dakota Alternate Water Supply (ENDAWS), which made the project eligible for federal funds," DeKrey says. "This enabled us to use the McClusky Canal for the Red River Valley Water Supply Project. It will save the taxpayers and project users a minimum of $280 million in construction costs. That is in addition to federal funding for the project."

Federal approval of the McClusky Canal as an alternate bulk water supply for the RRVWSP allows the long-underutilized federal asset to be developed for municipal and industrial water supply, which is an authorized purpose of the original GDU feature. When construction is completed on the RRVWSP, a buried transmission pipeline will span from the McClusky Canal to the

discharge structure, which empties into the Sheyenne River. Ultimately, the RRVWSP is projected to provide an emergency and supplemental water supply to nearly half of North Dakota's population, from the central part of the state to the Red River Valley. It is projected to be completed in 2032.

"Beyond the Red River Valley Water Supply, Garrison Diversion continues to benefit the state of North Dakota. We facilitate 8,000 acres of irrigation and our staff operates and maintains Garrison Diversion Unit facilities. We're just finishing up a six-year $16 million repair of the McClusky Canal," DeKrey says. "Garrison Diversion has provided more than $300 million over the last 25 years to water projects in North Dakota with our partner, the North Dakota Department of Water Resources." Garrison Diversion has also provided $9.2 million via matching recreation grants throughout the 28-county conservancy district. It also provides grants for residents to hook up to rural water and assists cities with emergency water system repairs.

Though he doesn't have a retirement date in sight, DeKrey does have a few goals he would like to reach before he wraps up his career. "My goals for the end of my tenure are to see the Red River Valley Water Supply Project progress as far as possible and fully investigate the potential title transfer of the rest of the Garrison Diversion Unit facilities from the Bureau of Reclamation to Garrison Diversion. Ultimately, I want to leave Garrison Diversion with a cohesive group of people who will have no problem continuing the organization's mission."

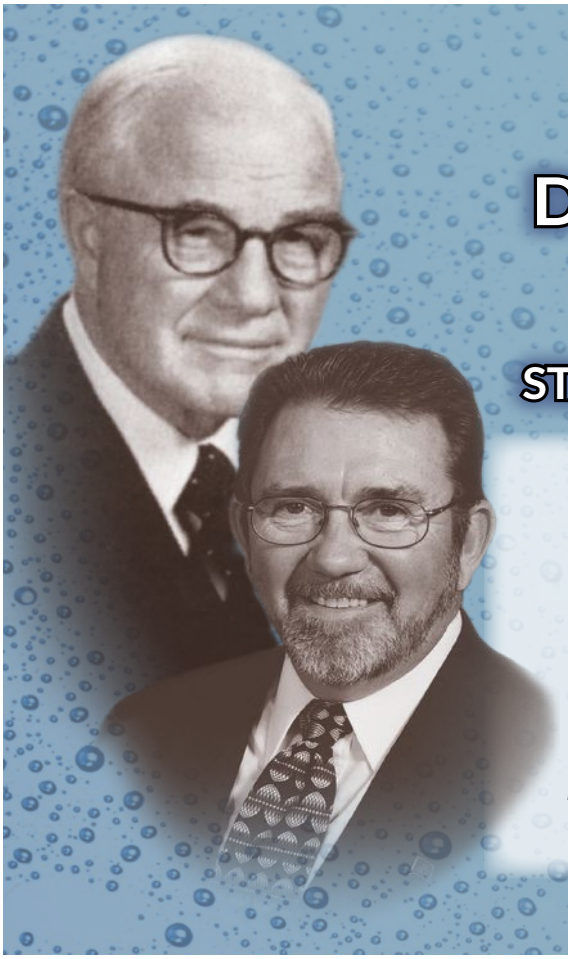
2026 North Dakota Waterways PHOTOGRAPHY CONTEST

The 2026 North Dakota Waterways Photo Contest will be begin accepting entries **January 1, 2026**

Be creative! If you "Discover our Cover," you win!

| Deadline for submitting photos is May 15, 2026 |

More information at www.ndwater.org/photo-contest-winners/



APPLY FOR THE 2026 Dushinske & Jamison Water Resources Scholarship STARTING January 1, 2026

The North Dakota Water Education Foundation (NDWEF)will begin accepting applications for the 2026 Dushinske & Jamison Water Resources Scholarship on January 1, 2026!

APPLICATION DEADLINE: April 15, 2026

This scholarship honors the legacy of Russ Dushinske and Warren Jamison, whose unwavering commitment to water development in North Dakota set the standard for leadership and service.

Established through the NDWEF and the North Dakota Community Foundation, the Dushinske & Jamison Water Resources Scholarship Endowment supports the next generation of leaders in water resources.

For more details, visit https://ndwater.org/scholarships/

NORTH DAKOTA WATER

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2025 CALENDAR

Dec. 1	Southwest Water Authority's Board of Directors Meeting, Dickinson
Dec. 9	Water Topics Overview Committee Meeting, Room 327B, Capitol
Dec. 9-11	62nd Annual Joint North Dakota Water Convention and Upper Missouri Water Association and Irrigation Workshop, Bismarck Hotel & Conference Center, Bismarck
Dec. 9	Upper Sheyenne River Joint Water Resource Board of Directors Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 9	Upper Missouri Water Association's Board of Directors Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 9	North Dakota Water Resource Districts Association's Board of Directors Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	Devils Lake Basin Joint Water Resource Board Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	Red River Joint Water Resource District's Board of Directors Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	Missouri River Joint Water Board Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	Souris River Joint Board Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	North Dakota Irrigation Association's Membership Meeting, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	North Dakota Irrigation Association's Board of Directors, Bismarck Hotel & Conference Center, Bismarck
Dec. 11	North Dakota Water Users Association's Board of Directors Meeting, Bismarck Hotel & Conference Center, Bismarck

For more information or if you would like a water event listed here, call 701-223-8332 or email *jellingson@ndwater.net*.
Submissions are due the first Monday of each month preceding the next issue.

North Dakota Water Education Foundation • P.O. Box 2254 • Bismarck, ND 58502