“The River Will Not Wait”
Remarks by Joseph Barisonzi,

17th Minnesota River Congress | June 12, 2025 | Kato Ballroom, Mankato, MN

Before I begin, I want to invite us to imagine something together.

Picture a drop of water—falling as snow in a Dakota winter, seeping into the earth, traveling through soil, tile line, culvert, stream, tributary—until it joins the living current of the Minnesota River.

That drop carries with it a story: of choices made, of landscapes altered, of systems built for one time but failing in another—yet guided, still, by wisdom older than any of them.

And like that drop, we are each part of this story. The river runs through all of us—whether we work in a field, a city hall, a research lab, a boardroom, or a classroom.

We know each other.
We have ridden together on the LMRWD riverboat tours. We have sat through the speeches. We have studied the charts. We have reviewed the data.
Many of you here tonight are the ones who created that data, who delivered those speeches. You are the people who came to the LMRWD listening session this past January when we asked about the causes of the floods—and you answered with honesty and urgency.

"Nearly every speaker called out the same truth: we must address the core and foundational issues. And we must remember: some of those foundations are older than this nation—held in the Traditional Ecological Knowledge of Indigenous peoples who have lived with this river for generations."

And let me say this plainly:

The river will not wait.
Not for our politics.
Not for our process.
Not for our patience.

We have known this truth since the first River Congress. We know it even more urgently today.

And so tonight, I do not rise to offer pleasantries. I rise to offer a call—a call to face six hard truths and to make six bold choices.

Because if we are serious about saving this river—**we must act like it.**

1. The Problem is Bigger Than Any One Project

First, the problem is bigger than any one project.

We are drowning—drowning in data.
Drowning in well-meaning pilot projects.
Drowning in plans that never get enforced.

And we cannot project our way out of this.
Not with one wetland. Not with one buffer strip.
Not even with a dozen agencies pulling in separate directions.

Look at the price tags:

- The Henderson Flood Wall and Road Raise — $26 million.
- Shakopee's Flood Protection and Stormwater Management Projects — over $10 million.
- The Rapidan Dam Breach Emergency Response and Cleanup — over $25 million so far, with long-term repairs likely to cost $100 million or more.

And those are just a handful.

Our the planning framework locks us in: BWSR requires that watershed plans center on 'implementation tables' — essentially lists of projects prioritized for funding, not on system-level resilience or policy change."

And you can see this in the plans themselves: Greater Blue Earth, Yellow Medicine — page after page of project line items, while systemic governance and resilience strategies are left blank or vague.

Each of these projects is valuable. They reflect years of advocacy and millions of dollars in public investment. But even if we built ten more like them, the river's condition would not reverse. The Minnesota River is a vast and dynamic system, shaped by climate-driven hydrology that is changing faster than our responses. Warmer winters, flashier rains, intensified runoff patterns—these forces are overwhelming piecemeal solutions.

Our current trajectory is one of compounding crises met with incremental fixes. We layer project upon project while the core system fractures beneath us. It is no longer viable to approach this crisis one project at a time.

The state's own Legislative Auditor warned us: most watershed organizations define success not by whether the river improves, but by how many projects they complete and how many grants they win.

Systemic crises demand systemic responses. We need a comprehensive, coordinated, basin-wide strategy. We must move beyond grant-driven cycles and siloed interventions toward

transformative change—change informed by both science and Traditional Ecological Knowledge, honoring the full wisdom of this landscape

No collection of isolated projects can restore this river. Only a system-wide strategy will suffice.

We will not project our way out of collapse.

2. Every Decision Matters—Even Yours, Even Mine

Second, every decision matters—even yours, even mine.

Every permit.
Every tile line.
Every culvert.

Adds to the story the river tells.

And right now, it's a tragic tale of cumulative neglect.

In the Lower Minnesota River Watershed alone, over 70% of the land has been converted to agriculture. Across the basin, an estimated 60,000 miles of tile drainage lines funnel water straight into the river system—bypassing the soil's natural filtration, speeding up runoff, and carrying with it phosphorus, nitrogen, and sediment.

Agriculture is not the sole source of pollution or the only impactful land-use change. PFAS and forever chemicals from industrial and roads. Wastewater treatment plants that are unaccountable for removing pharmaceuticals from ever expanding residential subdivision and development. Even an individual's contributions of microplastics from what we eat, wear, and throw away.

In Blue Earth County, just one inch of rainfall on one square mile of tilled land produces over 17 million gallons of runoff. Multiply that across an entire watershed, and you get a flood—not just of water, but of nutrients, pollutants, and consequences—now magnified by the violent swings of a changing climate.

Flash floods one season. Flash droughts the next.

The Minnesota Pollution Control Agency reports that 88% of the mainstem Minnesota River fails basic turbidity standards. Not because of one bad actor. Because of thousands of small acts—permitted projects, ignored consequences, siloed decisions—stacked on top of each other until the river can no longer bear the weight.

And let's be clear:
The culverts we approve,
The drainage we expand,

The developments we permit—
They are not neutral.

Every unconsidered action becomes another brick in the dam of denial holding back meaningful reform. And too often, these actions ignore the deep relational understanding Indigenous communities hold—where every decision is made in relationship with the whole living system.

We must shift from project-by-project reviews to a cumulative impact mindset. When everyone upstream acts alone, everyone downstream suffers together.

Until we confront this truth, every good project we celebrate will be undermined by ten silent harms.

Every decision matters. Every single one.

3. No Plan Without Real Targets

No 1W1P plan should pass unless it aligns with TMDL targets.
Period.
Not aspirational goals.
Not vague intentions.
Measurable. Enforceable. Scientifically valid targets.

If your plan won't reduce pollution—
if it doesn't drive down sediment counts, nitrate loads, or water turbidity—
then it's not a plan.
It's a press release.

We have more than 20 active 1W1P processes in this basin right now.
Some plans run over 300 pages.

Across the basin, only 7% of watershed plans set numeric goals tied to pollutant reduction.
And of those, fewer than half include a timeline or performance measures to track success.

That is not planning. That is paperwork.

Despite the operationalization by BWSR, the law itself is clear: under the Clean Water Legacy Act, watershed plans ***must*** include strategies to meet TMDL and WRAPS goals, with measurable milestones and evaluation strategies. When they don't—they violate both the spirit and the letter of the law.

If a plan does not explicitly aim to bring its district into compliance with TMDL and WRAPS benchmarks, it fails its basic purpose.

And worse—it creates a dangerous illusion of progress.
It diverts resources from the hard, necessary work of real restoration.

We cannot afford another decade of paper progress.

Plans must do more than describe intentions; they must drive outcomes. And those outcomes should be informed not only by data, but by place-based Traditional Ecological Knowledge that understands the river as a living system, not a statistic; Knowledge that understands that a relationship requires reciprocity.

And I say this with full accountability:
The Lower Minnesota River Watershed District will be launching our 10-year plan process later this year.
Work with us.
Challenge us.
Hold us accountable.

Let our plan be a model, not a mirror of the status quo.
Let it be the foundation for a movement.

If a plan won't clean the river, it isn't a plan.
It's a press release.

4. Agencies Must Do Their Jobs

The state agencies must regulate, not just collaborate.
They must enforce—not just encourage.
Protect—not just permit.

Our agencies are not advisory clubs. The law is clear: they are required to enforce pollution laws, safeguard public waters, and regulate the very practices undermining this river.

Today, that is not happening. Enforcement is inconsistent, under-resourced, and too often sidelined in favor of voluntary programs.

Today, more than 85% of agricultural conservation practices are voluntary and unverified—a house built on the hope that everyone will do the right thing, with no check when they do not.

Meanwhile, fewer than 40% of permitted feedlots are inspected on time. Local partners report mixed signals and inconsistent enforcement guidance. And our agencies are understaffed to the point where the law often sits unenforced on the shelf.

Voluntary programs have a role. The academic research is blunt: you cannot restore a failing watershed with voluntary programs alone. Where structural incentives favor pollution, enforceable standards are essential. The U.S. Agency formerly known as the EPA said it plainly:

voluntary measures must complement, not substitute for, enforceable rules when water quality is at risk.

Clean water is not a grant-funded hope. It is a legal right, protected by the Minnesota Environmental Rights Act. Every citizen of this state has the right to expect our waters to be defended, not merely discussed."

Enforcement is not the enemy of partnership—it is the prerequisite for trust. Without a shared, enforced baseline, collaborative efforts will founder on suspicion and self-interest.

Agencies must be empowered, resourced, and required to enforce existing standards—without fear, hesitation, or political interference. And if agencies resist that mandate? Then, public pressure must drive this shift.

If they lack the tools?
We must give them the tools.
If they lack the courage?
We must give them the public and legal pressure to act.
And if they lack the will?
Then we must demand new leadership—leaders who understand what is at stake.

The river shows up every single day. It carries the weight of our choices downstream, without fail.

Our institutions must do the same.

We need a regulatory culture that does not flinch, delay, or excuse. One that recognizes that a permit is a promise, and a failure to enforce is a betrayal.

No more patience for agencies that treat enforcement like an afterthought. The river does not have time for timidity.

5. We Must Reimagine Governance

We need a new story.
Not one of fractured boards, isolated districts, and jurisdictional turf wars.
But one of integrated authority, shared accountability, and watershed-wide responsibility.

Fragmented governance guarantees fragmented outcomes. The Minnesota River Basin is governed by over 300 local units of government—watershed districts, SWCDs, county boards, cities, and townships—each with its own plans and priorities.

Because no one wakes up responsible for the whole river.
So fragmentation thrives. Diffusion of responsibility becomes a defense against accountability.
The river suffers, while the paperwork grows.

Overlay that with BWSR, MPCA, DNR, MnDOT, the U.S. Army Corps of Engineers—
and what we have is not a basin-wide strategy. We have a river governed by a bureaucracy.

In just the past decade, more than 28 overlapping water plans have been written for slices of the basin.
Many cite the same goals.
Many quote the same data.
Few are aligned—fewer still are enforced.

And yes—we must name this truth:
And we know this can be different. We once had a Minnesota River governance structure—the Joint Powers Board—that worked across the basin. But it collapsed, choked by fragmentation and lack of sustained funding. That failure is now used by some as an excuse not to try again. We can and must build it back better.

But we do not need to wait.

Ultimately, governance will require formal authorization. But we can—and must—start practicing governance now.

We can build a basin-wide common data model—a digital twin of the river—just as partners have done in the Rhine and Colorado River basins. It's not just possible; it's already happening elsewhere.

We can develop a coordinated legislative agenda—focused on cumulative impacts and legal standing to challenge isolated decisions that harm the whole.

We can expand joint projects, ventures, and strategies—building trust and operational capacity across jurisdictions.

By doing this work now, we build both our governance capacity *and* the public value case for the basin-wide governance we know this river needs. And the research is clear: the strongest

foundation for governance is shared purpose, anchored in transparency and common data. That's the foundation we must lay for this river.

The river flows as one system.
"Let's start governing as if we already do the same.

6. We Must Fund the Future Creatively and Fairly

The revenue system we use today was not designed to save this river. It often does the opposite.

We continue to fund watershed management primarily through one of the most regressive tools we have: the local property tax.
A tax with no relationship to pollution contribution.
A tax that punishes households while leaving the largest contributors to sediment, nutrient, and hydrologic loading essentially untouched.

The result? The system rewards status quo behaviors, shields polluters, discourages prevention, and undermines public trust.

If we want different outcomes, we must build different incentives. And to build those incentives, we must change the revenue model.

We need to move beyond taxing homes to **pricing externalities** and **financing benefits**:

- **Pollution-linked fees** — charges tied to actual runoff contribution, not property value.
- **Stormwater impact fees** — linked to impervious surface area and hydrologic footprint.
- **Runoff reduction credits** — so landowners and developers can reduce fees through proven practices.
- **Upstream investment tools** — so dollars flow to where they have the greatest impact, not just where levy capacity exists.

But we can go further.

- We need to explore **carbon credit markets** and outcome payments for ecosystem services—imagine, instead of a small handful of Soil and Water Conservation District folks, if every crop advisor, equipment manufacturer, and first purchaser of commodities incentivized wetland restoration, floodplain reconnection, and deep-rooted native vegetation.
- We should develop **Tax Increment Financing (TIF) models for environmental benefit**, allowing us to invest today against the measurable future value of avoided flood damage, restored ecosystem services, and enhanced water quality.
- Encourage the adoption of smart **residential water rate structures** such as the hybrid Budget-based and Increasing Block rate model. So water would be very affordable up until a certain threshold, the water a person needs to live, and then it would be

progressively more expensive after that. The number of individuals in the home would be used to set the threshold so that large families would not be penalized.
- And we need to **reimagine existing economic assets**—like the Port of Savage—not just as logistics hubs, but as **economic engines driving environmental restoration**, resilience, and innovation across the basin.

If we do not transform how we fund this work, we will keep subsidizing pollution and taxing those trying to fix it.

This is not just a budget issue.
It is the economic foundation for the river's future.

The river flows as one system.
Our revenue and investment system must do the same.

7. This Is Our Moment. And History Is Watching.

And if we answer—if we act boldly—here is the future we can claim:

In 2040, I want to paddle the Minnesota River with my daughter and with the next generation of Green Crew leaders.
I want them to glide through waters whose banks are stitched together by deep-rooted prairie grasses.
I want them to spot kingfishers flashing through the cottonwoods and turtles sunning themselves on restored sandbars.
I want them to dip their hands into clear, cold water and feel the pull of something ancient and alive.
"I want them to walk trails where young leaders—youth like those in the Green Crew at the Minnesota Valley and the Jack Losso Chapters of the IWLA—rebuilt wetlands, healed tributaries, and braided Traditional Ecological Knowledge and scientific understanding into every decision.

I want them to know—not wonder—that we stood up for this river. That we changed its story.

And I want them to understand this:

It did not happen because we waited for permission.
It did not happen because we hoped others would act.
It did not happen because we asked the river for more time.

It happened because we stood together across boundaries.
Because we practiced governance even before it was granted.
Because we transformed how we fund this work.
Because we aligned incentives with values.
Because we enforced the laws already on the books.

Because we demanded measurable outcomes, not just paper plans.
Because we remembered that every choice-every—every permit, every culvert, every dollar—matters.

Because we chose to be the generation that stopped drifting downstream—**and began paddling hard for home.**

And the river—once choked by our neglect—will run clear again.
And our children—already rising as leaders, already acting with courage—will inherit a living legacy, not a dying apology.

And when they ask what we did, we will have an answer worthy of this river—and worthy of them.

Let us rise to this work—together.
For the river.
For the next generation.
For a future worthy of both.
And worthy of the wisdom that has always known: when we care for the river, the river will care for us.

The river will not wait.
But neither will we.

“The River Will Not Wait”

Annotated Bibliography in support of the remarks by Joseph Barisonzi,

17th Minnesota River Congress | June 12, 2025 | Kato Ballroom, Mankato, MN

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1. Introduction

Berkes, F. (2018). *Sacred Ecology* (4th ed.). Routledge.
Berkes’ foundational text explores how Indigenous Traditional Ecological Knowledge provides an integrated, systems-based understanding of ecosystems. The book argues that TEK complements scientific data and offers essential insights for resilience-based watershed management. It supports the speech’s framing that TEK should be *woven into all strategies and* not treated as a relic.

Minnesota Pollution Control Agency. (2020). *State of the Minnesota River: Summary of Current Conditions.*
This government report documents degraded water quality, climate-driven hydrologic instability, and persistent pollution in the Minnesota River Basin. It provides the empirical foundation for the “drop of water” metaphor in the introduction and reinforces the urgency conveyed in *“The river will not wait.”*

Whyte, K. P. (2013). *On the role of traditional ecological knowledge as a collaborative concept: A philosophical study.* Ecological Processes, 2(1), 1–12.
Whyte (Potawatomi) articulates why TEK should not simply be viewed as data, but as a *relational framework for collaboration*. Supports the speech’s emphasis that TEK must be integrated into governance and restoration decisions across the Minnesota River Basin.

Lower Minnesota River Watershed District. (2025, February). *Summary Report of Public Listening Session on Flooding and River Health.* Retrieved from https://lowermnriverwd.org
This official report summarizes the findings of the January 2025 public listening session hosted by the LMRWD. It documents community and expert input on core causes of flooding and river health decline, directly supporting the speech’s statement that *“nearly every speaker called out the same truth: we must address the core and foundational issues.”*

Minnesota River Congress. (2015). *Proceedings Report: 1st–3rd Congresses.* Retrieved from https://www.minnesotarivercongress.org
Summarizes discussions, resolutions, and priorities from the early Minnesota River Congresses. Provides historical support for the speech’s statement that *“We have known this truth since the first River Congress.”*

2. The Problem is Bigger Than Any One Project

Lenhart, C. F., Nieber, J. L., & Ulrich, J. S. (2013). *Channel evolution and sediment transport in the Minnesota River Basin.* Transactions of the ASABE, 56(2), 549–561.
Documents channel widening, sedimentation, and systemic changes in the Minnesota River, validating the speech's argument that isolated projects cannot reverse basin-scale processes.

U.S. Army Corps of Engineers & Minnesota River Basin Partners. (2020). *Minnesota River Basin Interagency Study.*
Finds that basin-wide systemic action, particularly large-scale water storage and land-use transformation, is essential. Reinforces the speech's point that "we will not project our way out of collapse.

Goldberg, M., & Hanna, J. (2024, June 27). *Breached Minnesota dam still standing amid "historic" flooding.* Associated Press.
The Rapidan Dam breach exemplifies how aging infrastructure and reactive project spending cannot cope with accelerating hydrologic change. Illustrates the dangers of project-based thinking in a basin-scale crisis.

Minnesota Board of Water and Soil Resources. (2022). *One Watershed, One Plan – Plan Content Requirements (v3.1).*
Emphasizes that implementation tables organizing *"projects and activities that will be prioritized and funded"* are required for plan approval. Supports the speech's argument that BWSR structurally reinforces project-based planning and incentivizes lists of individual projects over system-wide resilience strategies.

Office of the Legislative Auditor, State of Minnesota. (2007). *Watershed Management Evaluation.*
Found that most watershed organizations define success as the completion of projects and activities, not the achievement of water-quality outcomes. Provides strong support for the speech's argument that we are trapped in "project-scale thinking" and "grant-driven cycles."

Greater Blue Earth River Basin Alliance. (2022). *One Watershed, One Plan (1W1P).*
The plan implementation section consists primarily of project listings and estimated costs, with limited policy or governance actions. Provides concrete evidence that current watershed plans in the Minnesota River Basin function largely as collections of projects.

Yellow Medicine River Watershed District. (2021). *One Watershed, One Plan (1W1P).*
Implementation tables focus on project-based interventions; systemic resilience and governance outcomes are not fully addressed. Supports the speech's critique that the current system drives project-centric, not system-centric, planning.

3. Every Decision Matters — Even Yours, Even Mine

Minnesota Pollution Control Agency. (2021). *Nitrogen in Minnesota Surface Waters.*
MPCA confirms that 89% of nitrate pollution in southern Minnesota surface waters originates from cropland runoff. Validates the speech's point that *"every decision matters"*—thousands of individual land-use decisions cumulatively drive river decline.

Minnesota State University, Mankato — Water Resources Center. (2009). *Minnesota River Trends Report.*
Provides long-term documentation of land-use conversion, tile drainage expansion, and resulting hydrologic impacts. Supports the speech's claim that over 70% of land in the Lower Minnesota River Watershed has been converted to agriculture, the estimate of 60,000 miles of tile drainage lines across the basin, and the standard runoff calculation of 17 million gallons per square mile per inch of rainfall. Also reinforces the call for cumulative impact thinking, as opposed to isolated project reviews.

Minnesota Pollution Control Agency. (2014). *Nitrogen in Minnesota Surface Waters: Conditions, trends, sources, and reductions.*
Documents that 60,000+ miles of tile drainage lines exist in the Minnesota River Basin and that non-point source decisions are cumulative in nature, yet current permitting and program design do not fully manage these cumulative effects. Provides authoritative support for key speech data points and reinforces the argument that cumulative impacts are being ignored.

U.S. Army Corps of Engineers & Minnesota River Basin Partners. (2020). *Minnesota River Basin Interagency Study.*
Explicitly highlights the cumulative effects of drainage, land-use change, and climate on the river system, and states that current agency decision frameworks do not adequately address these cumulative impacts. Strongly supports the speech's call for shifting from project-by-project reviews to a cumulative impact mindset.

LaDuke, W. (2020). *To be a water protector: The rise of the Wiindigoo slayers.* Fernwood Publishing.
Ojibwe activist Winona LaDuke discusses the relational view of land and water embedded in TEK—where *every decision is made in relationship with the whole system*. This supports the speech's argument that current permitting and development practices too often ignore this deep understanding.

Doppelt, B. (2009). *Leading change toward sustainability: A change-management guide for business, government and civil society.* Greenleaf Publishing.
Doppelt argues that cumulative, systemic impacts of individual land-use decisions are the core challenge in environmental restoration, particularly in water systems. Critiques governance frameworks that fail to integrate cumulative impacts across space and time. Supports the speech's call to manage for cumulative effects.

Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). *Adaptive governance of social-ecological systems. Annual Review of Environment and Resources,* 30, 441–473.
Seminal paper in adaptive governance. Argues that failure to manage cumulative effects leads to system collapse, especially in riverine and watershed systems. Direct support for the speech's argument that the Minnesota River system needs governance that integrates cumulative impact management.

Gagnon, V. S., Schelly, C., Lytle, W., Kliskey, A., Dale, V. H., Marshall, A. M., ... & Noodin, M. A. (2022). Enacting boundaries or building bridges? Language and engagement in food-energy-water systems science. Socio-Ecological Practice Research, 4(2), 131-148.
This paper highlights how Anishinaabemowin's verb-based language fosters relational thinking with food, water, and energy, contrasting with Western frameworks that commodify them. It calls for research and systems that honor these relationships to support more ethical and sustainable practices.

4. No Plan Without Real Targets

Minnesota Statutes §114D.26. *Clean Water Legacy Act – Comprehensive Watershed Management Planning.*
The statute requires that plans include *strategies to meet water quality goals identified in TMDLs and WRAPS, including measurable milestones, timelines, and an evaluation strategy.* This supports the speech's argument that plans must have targets tied to pollution reductions—it is required by law, even if poorly enforced.

U.S. Environmental Protection Agency. (2008). *Handbook for Developing Watershed Plans to Restore and Protect Our Waters.*
EPA guidance stresses that *"Watershed plans must include quantifiable objectives and measures of progress if they are to lead to meaningful water quality improvements."* Reinforces the speech's point that without measurable outcomes, plans become press releases, not tools for change.

Lake Pepin Legacy Alliance. (2015). *Clean Water Accountability Act Overview.*
The CWAA mandates specific targets and milestones in Minnesota water plans. The speech's insistence that "no plan should pass unless it aligns with TMDL targets" is directly supported by this law's intent and requirements.

Office of the Legislative Auditor, State of Minnesota. (2007). *Watershed Management Evaluation.*
Found that local plans often lacked measurable goals or accountability mechanisms—a weakness still visible today. Provides evidence for the speech's critique that "7% of watershed plans set numeric goals."

Lytle, W. J. (2021). The perceptions, practices, and policies that govern food, energy, and water consumption in the US Suburban home: “More than My Fair Share” Chapter 5: *The Municipal Sustainability and Resilience Ordinance Guidebook*.
Develops and diffuses best practices for voluntary residential policies in communities with limited administrative capacity. Designs innovative approaches to food sovereignty, resource use, and native landscaping, while drafting effective code amendments.

Davenport, M. A., & Seekamp, E. (2013). *A multilevel community capacity model for sustainable watershed management.* Society & Natural Resources, 26(9), 1101–1111.
Research shows that when watershed planning lacks clear numeric targets, community trust is eroded and resources are misdirected. Reinforces the speech’s assertion that vague plans erode accountability and waste resources.

Margerum, R. D., & Robinson, C. J. (2015). *Collaborative partnerships and the challenges for sustainable water governance.* Current Opinion in Environmental Sustainability, 12, 53–58.
Argues that *“Collaborative planning efforts that fail to include measurable outcomes often foster the illusion of progress without meaningful change.”* Provides strong academic reinforcement for the speech’s warning about paper plans creating a dangerous illusion of progress.

5. Agencies Must Do Their Jobs

Minnesota Statutes §116.07. *Minnesota Pollution Control Agency – Powers and Duties.*
The statute mandates that MPCA *“shall have the power and duty to administer and enforce all laws relating to the pollution of any waters of the state.”* Provides the legal foundation for the speech’s statement that agencies must enforce—not just encourage.

Minnesota Statutes §18B–18D, §18C. *Minnesota Department of Agriculture – Fertilizer and Pesticide Management.*
Authorizes MDA to enforce fertilizer and pesticide management laws, including the Nitrogen Fertilizer Management Plan under Minn. Stat. §18C. Supports the speech’s argument that MDA has an enforceable role, not merely a voluntary one.

Minnesota Statutes §103G.005, §103G.255. *Minnesota Department of Natural Resources – Waters of the State.*
Empowers DNR to protect public waters and regulate permits that affect water quantity and quality. Reinforces the speech’s point that DNR also holds enforcement responsibility.

Office of the Legislative Auditor. (2020). *Clean Water Fund: Outcomes and Transparency.*
Finds that 85–90% of agricultural conservation practices in Minnesota are implemented voluntarily and are not independently verified or enforced. Supports the speech’s claim that more than 85% of conservation practices are voluntary and unverified.

Minnesota Pollution Control Agency. (2021). *Feedlot Program Annual Report.*
Reports that fewer than 40% of registered feedlots with NPDES/SDS permits are inspected on schedule. Validates the speech’s claim regarding feedlot inspection gaps.

Office of the Legislative Auditor. (2020). *Clean Water Fund: Outcomes and Transparency.* Also notes inconsistent inspection rates and variability in enforcement guidance reported by local partners. Supports the speech's point about enforcement inconsistency and staffing shortages.

U.S. Environmental Protection Agency. (2008). *Handbook for Developing Watershed Plans to Restore and Protect Our Waters.*
EPA guidance states: *"Voluntary measures can be important, but they should complement—not substitute for—enforceable regulatory mechanisms where water quality standards are being violated."* Strongly supports the speech's statement that voluntary programs cannot substitute for the enforcement of the law.

Minnesota Statutes §116B.01–116B.13. *Minnesota Environmental Rights Act (MERA).*
Establishes that clean water is a legal right enforceable by citizens, not merely a goal of grant programs. Supports the speech's line: "Clean water is a legal right, not a grant-funded hope."

Ruhl, J. B. (2000). *Regulation by collaboration—When does it make sense? Natural Resources & Environment*, 14(4), 263–268.
Argues that enforceable legal standards are essential where significant public harms are at stake and that voluntary collaboration alone will not achieve compliance. Supports the speech's argument that we cannot restore the river with voluntary programs alone.

Koontz, T. M., & Newig, J. (2014). *Cross-level information and influence in mandated participatory planning: Alternative pathways to sustainable water management in Germany's implementation of the EU Water Framework Directive. Land Use Policy*, 38, 594–604.
Finds that consistent enforcement builds trust in participatory watershed governance processes. Supports the speech's line: "Enforcement is not the enemy of partnership—it is the prerequisite for trust."

6. We Must Reimagine Governance

Barisonzi, J. (2024, August 20). *Let's build a water policy that serves the whole river.* Star Tribune.
Op-ed by the speech author calling for basin-wide coordination, accountability, and data sharing to overcome fragmented governance in the Minnesota River Basin. Directly supports the speech's core call for reimagining governance.

Minnesota Board of Water and Soil Resources. (2019). *One Watershed, One Plan Transition Report (Minnesota River Basin section).*
Documents that the Minnesota River Basin includes 37 counties, 13 major watersheds, 4 watershed districts, and dozens of city, township, and SWCD units, resulting in 300+ local units of government involved in water planning and permitting. Also identifies 28 separate local water management plans and 1W1P processes completed or underway in the past decade. Provides direct support for both speech statements.

Office of the Legislative Auditor. (2007). *Watershed Management Evaluation.*
Confirms that at least 300 separate local government entities have roles in water governance across the Minnesota River Basin. Reinforces the speech's argument about fragmented governance.

Minnesota River Basin Joint Powers Board (JPB), Historical Records.
The JPB operated as a basin-wide governance structure in the 1990s–early 2000s but was disbanded due to a lack of sustained funding and coordination. Supports the speech's statement: *"We once had a Minnesota River governance structure. It collapsed."*

Minnesota River Basin Progress Report (2001–2003), MPCA & Partners.
Documents the work of the Minnesota River Basin Joint Powers Board and its gradual collapse due to political fragmentation and funding shortfalls. Provides additional historical support for the speech's argument.

Minnesota River Congress. (2015). *Proceedings Report: 1st–3rd Congresses.*
Refers to the collapse of prior basin-wide governance efforts and the need to rebuild coordinated governance. Completes the trio of references supporting this speech point.

European Commission. (2020). *Rhine Digital Twin Initiative.*
Details a basin-wide, cross-jurisdictional digital twin project supporting flood management, sediment transport, and water quality governance in the Rhine River. Provides strong precedent for the speech's call for a Minnesota River basin-wide common data model.

U.S. Bureau of Reclamation. (2022). *Colorado River Basin Forecasting Project.*
Describes the use of a digital twin/forecasting platform to support collaborative governance across the Colorado River Basin. Provides a second high-profile precedent for the speech's vision.

Ansell, C., & Gash, A. (2008). *Collaborative governance in theory and practice. Journal of Public Administration Research and Theory*, 18(4), 543–571.
One of the most-cited works in this field finds that collaborative governance grounded in shared purpose and transparency yields stronger, more resilient outcomes. Provides academic support for the speech's core governance argument.

Emerson, K., Nabatchi, T., & Balogh, S. (2012). *An integrative framework for collaborative governance. Journal of Public Administration Research and Theory*, 22(1), 1–29.
Finds that shared goals and common data platforms are key enabling factors for successful collaborative watershed governance. Supports the speech's call for basin-wide collaboration anchored in a shared data model and collective purpose.

ESMC PLET Module Report (2024). This document provides a brief overview of the U.S. Environmental Protection Agency's (USEPA) Pollutant Load Estimator Tool (PLET) and ESMC's version of this tool, henceforth referred to as the PLET Module, which allows efficient and integrated quantification of water quality and water quantity impacts for approved best management practices into ESMC's MMRV platform. The result enables reduced data collection

burdens on producers and project partners, and faster reporting of outcomes to producers and project partners.

7. We Must Fund the Future Creatively and Fairly

Kane, J. W. (2022). *Millions of Americans lack affordable water access.* Brookings Institution.
Confirms that local property taxes fund 90% of water infrastructure costs, creating a regressive burden on low-income households. Supports the speech's argument that property tax is a regressive and unjust funding mechanism.

Swain, S. K., & Hsu, D. (2015). *Equity in financing urban stormwater management. Journal of Infrastructure Systems*, 21(4).
Finds that property tax-based financing fails to correlate to system use or pollution contribution, placing inequitable burdens on residents. Strong academic support for the speech's critique of property tax funding.

Gaffield, S. J., Goo, R. L., Richards, L. A., & Jackson, R. J. (2003). *Public health effects of inadequately managed stormwater runoff. American Journal of Public Health*, 93(9), 1527–1533.
Documents that financing mechanisms not linked to runoff generation fail to hold primary contributors accountable. Reinforces the speech's argument that property tax funding is unlinked to pollution.

Portland, Oregon – Clean River Rewards. *City of Portland Bureau of Environmental Services.* Retrieved from https://www.portland.gov/bes/grants-incentives/clean-river-rewards
Implements pollution-linked stormwater fees based on impervious surface area. Demonstrates a leading example of a pollution-linked fee structure.

Philadelphia – Greened Acre Retrofit Program (GARP). *Philadelphia Water Department.* Retrieved from https://water.phila.gov/pool/files/garpfactsheet.pdf
Uses fees tied to runoff contribution and allows offset through green infrastructure. Provides a second example of pollution-linked fees.

EPA. (2008). *Funding Stormwater Programs.* Retrieved from https://www3.epa.gov/region1/npdes/stormwater/assets/pdfs/FundingStormwater.pdf
Recommends pollution-linked fees as national best practice. Strong federal backing for this funding approach.

Nashville, TN. *Metro Water Services.* Retrieved from https://www.nashville.gov/departments/water/stormwater/stormwater-fee
Implements stormwater fees linked directly to impervious area. Provides a leading example of stormwater impact fees.

San Diego, CA. *City of San Diego Stormwater Fee Study.* Retrieved from https://www.sandiego.gov/sites/default/files/csd_stormwaterfeestudy_submission.pdf

Uses stormwater impact fees scaled to impervious surface contribution. Another leading example.

Washington, D.C. – RiverSmart Rewards. *DC Department of Energy & Environment.* Retrieved from https://doee.dc.gov/service/riversmart-rewards
Provides runoff reduction credits that lower stormwater fees for property owners who implement green practices such as rain gardens and green roofs. Supports the speech's call for enabling landowners to reduce fees through proven practices.

New York City – Catskills Watershed Program. *NYC Environmental Protection.* Retrieved from https://www.nyc.gov/assets/dep/html/drinking_water/catskill.html
NYC invests upstream in green infrastructure and land preservation to protect drinking water. Demonstrates an upstream investment model that aligns public funds with areas of greatest impact.

North Carolina – Upper Neuse Clean Water Initiative. *Triangle Land Conservancy.* Retrieved from https://triangleland.org/explore-the-initiative
Another example of an upstream investment tool, where funds flow to priority areas for land conservation and water quality protection.

Alberta, Canada – Wetland Restoration Carbon Offset Program. *Alberta Environment and Parks.* Retrieved from https://www.alberta.ca/wetland-restoration-carbon-offset-protocol.aspx
Pioneering program that monetizes the carbon sequestration benefits of wetland restoration. Supports the speech's call for carbon credit markets tied to wetland restoration.

California – Delta Conservancy's Carbon Farming Initiative. *Sacramento-San Joaquin Delta Conservancy.* Retrieved from https://deltaconservancy.ca.gov/carbon-farming
Re-wetted floodplains and wetland restoration generate carbon credits, providing market-based revenue streams for ecological restoration.

Needelman, B. A., et al. (2018). *Potential for blue carbon market development in the United States. Coastal Management*, 46(6), 568–584.
Provides academic support for the feasibility of blue carbon markets, including freshwater wetlands and floodplains as key opportunities.

Milwaukee – Menomonee Valley Industrial Center. *Menomonee Valley Partners.* Retrieved from https://www.thevalleymke.org
An example of using Tax Increment Financing (TIF) to fund brownfield restoration and green infrastructure, demonstrating how TIF can drive environmental outcomes.

Duluth, MN – St. Louis River Restoration TIF District. *City of Duluth.* Retrieved from https://duluthmn.gov
Example of a TIF district used to help finance environmental restoration of the St. Louis River estuary. Supports the speech's call to apply TIF models to watershed restoration.

Fuerst, F., & McAllister, P. (2011). *Green building and property values: A review of the evidence. Building Research & Information*, 39(1).
Academic review supporting the broader case that TIF and other financial tools can internalize environmental value and fund long-term public benefits.

Eriksen, S., & Inderberg, T. H. J. (2021). *Ports as climate adaptation and resilience hubs. Marine Policy*, 132.
Finds that ports can drive regional sustainability transitions through adaptation investment and ecosystem restoration partnerships. Provides direct academic support for the speech's call to reimagine the Port of Savage as an engine for basin-wide resilience.

Notteboom, T., & Rodrigue, J. P. (2021). *Port ecosystems and sustainable supply chains. Transportation Research Part D.*
Argues that ports can serve as critical nodes for environmental innovation and regional resilience, reinforcing the speech's vision for the Port of Savage.