Smarter Water, Stronger Systems: Collaborative Paths to Resilience

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Environment Program

Overview


Walton Family Foundation Background
Mississippi River Program Theory of Change
Aligning Interests for Smarter Water Management
Catalyzing Culture Change

Environment Program

WHO

Farmers, ranchers & fishers

Governments: Federal, tribal, state & local

Companies

WHERE

Mississippi River and Coastal Louisiana

Colorado River

Oceans

Mississippi River Program

Theory of Change

THEORY OF CHANGE

MISSISSIPPI RIVER BASIN

The Walton Family Foundation works with communities & businesses in the Mississippi River Basin to protect water resources so that nature & people can thrive.

WHAT

Inclusion

Engage, empower & learn from diverse communities, governments, leaders & funders

Innovation

Develop & adopt nature-based & technological solutions

Supply Chain

Build supply & demand for sustainable agriculture

Policy

Advocate for long-term progress in protecting water

WHO

Farmers

Implement soil health practices to improve water quality, become more climate resilient

Communities & government

Support natural infrastructure & policies that encourage soil health practices


WHERE
IOWA
INDIANA
ILLINOIS
ARKANSAS
MISSISSIPPI
LOUISIANA
GULF OF MEXICO


WHY
Communities more resilient to changing climate
Improved water quality in the Mississippi River Basin

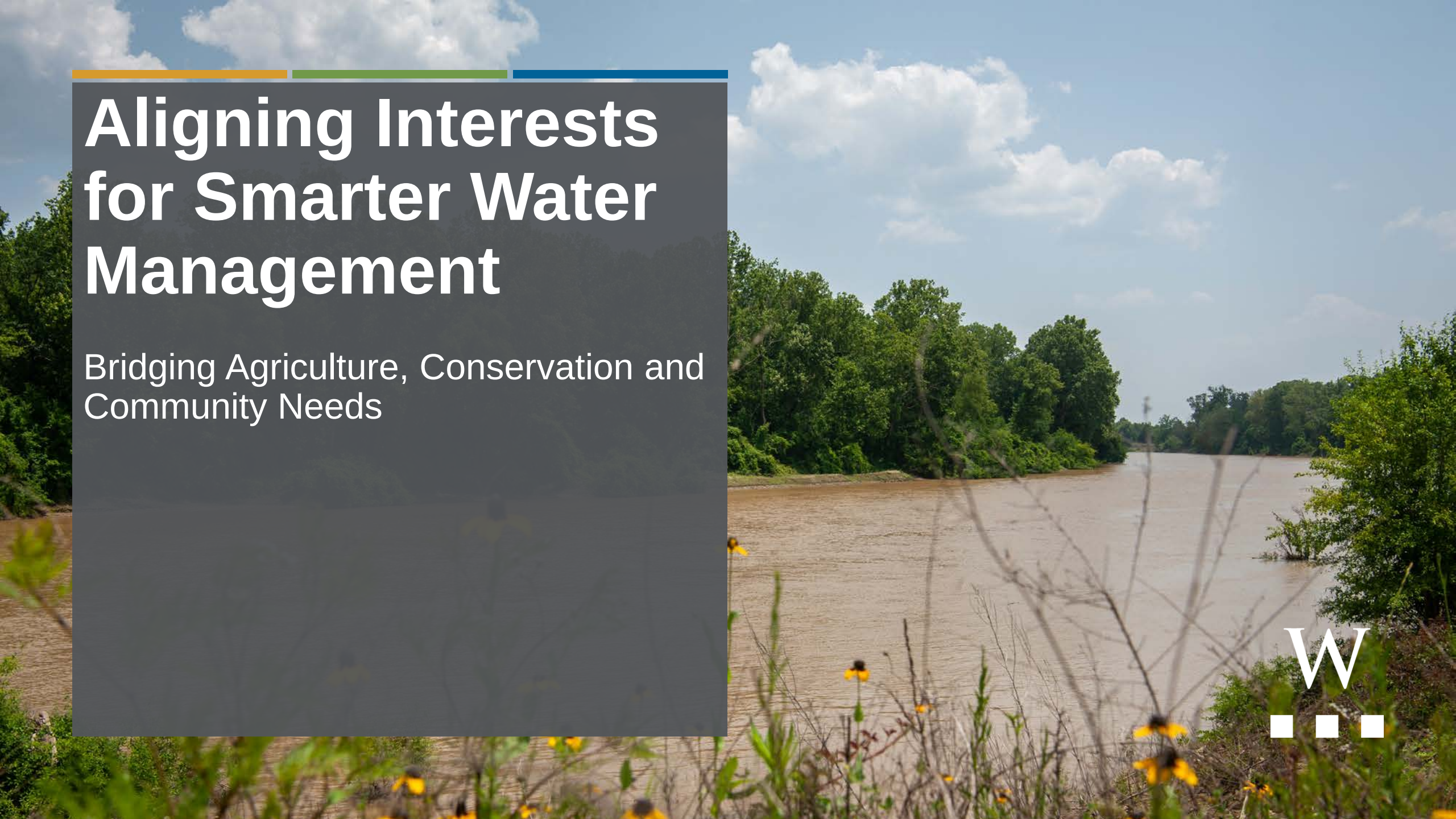
What’s next: Watershed Health and Resilience

WHERE WE HAVE BEEN:

- Focused on agriculture because it is the leading source of nutrient pollution in the MS River
- Sustainable agriculture is an important piece of the puzzle, but it is only one piece
- Starting with place-based work and innovation to refine ideas and develop champions for scaling up the work through policy and markets

WHERE WE COULD GO:

- **Upstream-downstream partnerships** that bring new tools to communities to manage watershed health
- **Community engagement** to create more ownership for a healthy and vibrant river
- **Momentum and funding for natural infrastructure,** including how communities can incorporate nature-based solutions into their long-term planning



Aligning Interests for Smarter Water Management

Bridging Agriculture, Conservation and Community Needs

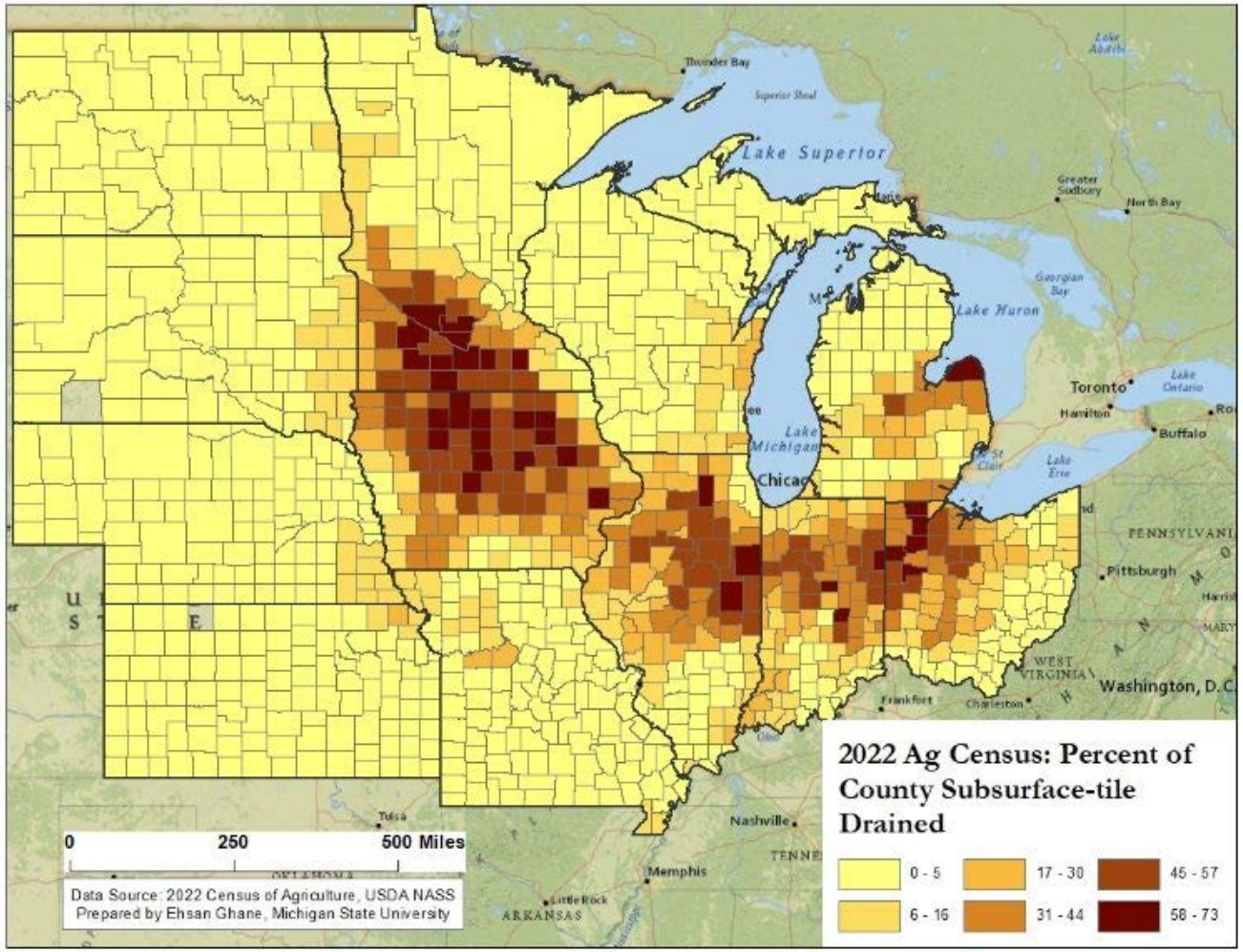
Agricultural Landscape & Water Management Challenges in the Midwest

Tile drainage systems and other modifications to hydrology increase vulnerability to weather fluctuations

Moving away from diversified ag systems to predominantly corn/soy rotations leaves agricultural land uncovered half the year

Rapid water runoff from fields:

- Exacerbates flooding downstream
- Carries away nutrients, creating problems elsewhere



Nature-Based Solutions

- Cover crops
- Diverse rotations
- Reduced tillage
- Buffer strips
- Prairie strips
- Wetlands
- Floodplain restoration

Why?

- Wetlands and floodplains are our natural sponges; they capture runoff, trap sediment, remove excess nutrients, and hold water that would otherwise rush downstream, mitigating both floods and droughts.
- Reforestation can significantly improve water quality by absorbing pollutants from surface runoff. Reforestation can also minimize soil erosion, stabilize riverbanks, and reduce flood damage.
- Cover crops, winter oilseeds, and permanent crops diversify income streams and reduce risk for farmers while delivering environmental benefits.

Barriers & Potential Solutions

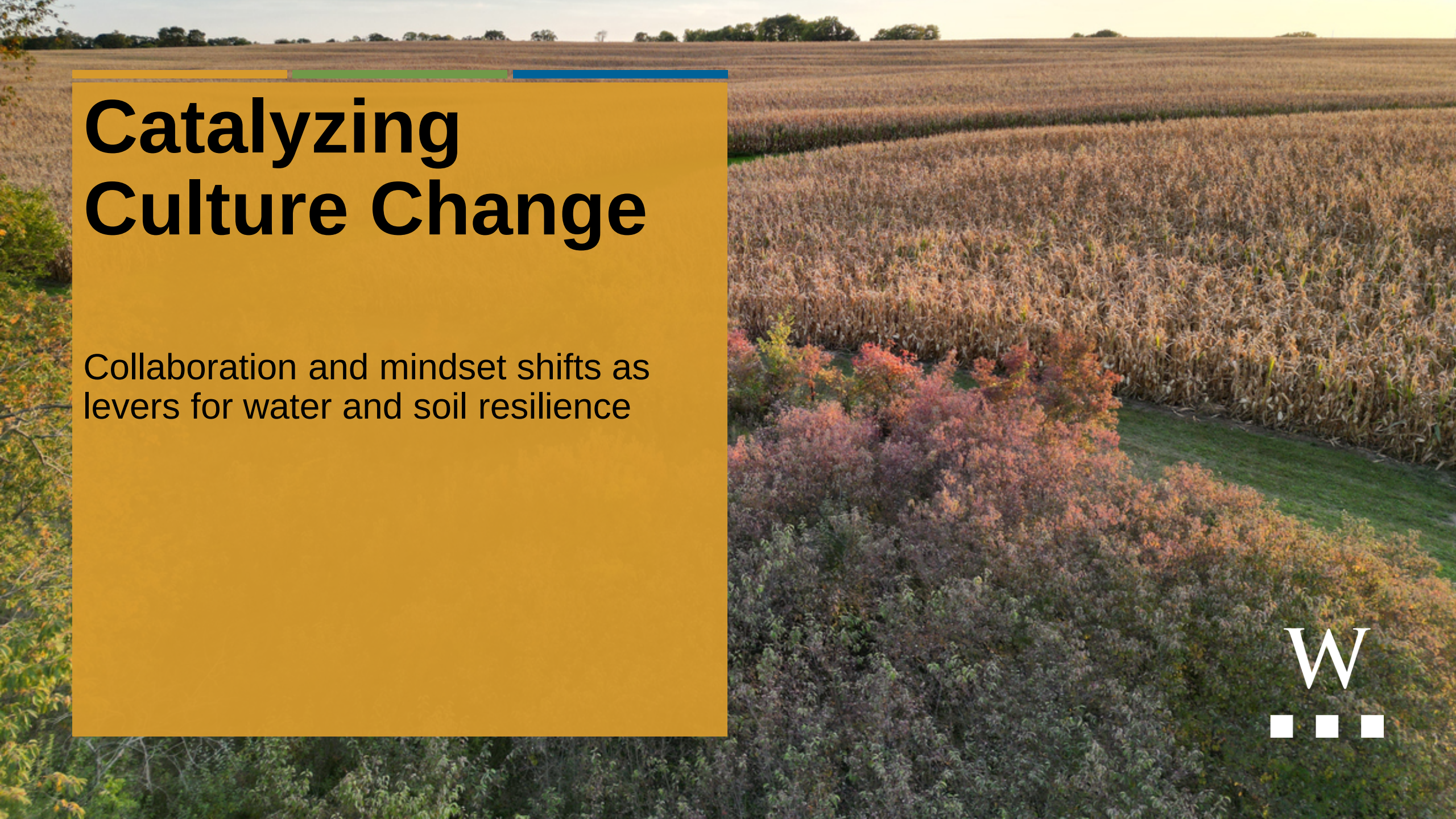
- **Challenge:** Identifying who pays for water quality improvements
- **Water quality trading** is one approach, but:
  - Often limited without regulatory drivers for non-point source pollution
- **Multi-benefit and multi-payer partnerships** are key

Cedar Rapids

- Watershed planning to target key areas for conservation practices
- Technical assistance to later adopters
- Partnerships with ag retail to reach new audiences
- Multi-payer: Stacked payment to farmers (SWOF)
- Multi-benefit
  - Water quality
  - Flood risk reduction
  - Wildlife habitat

Lower River Reforestation

- Watershed planning to target key areas for floodplain restoration and bottomland hardwood reforestation
- Technical assistance to landowners
- Multi-payer: Wetland Reserve Easement (WRE) + recreation fees + carbon payments
- Multi-benefit
  - Water quality
  - Flood risk reduction
  - Wildlife habitat
  - Job creation
  - Carbon sinks



Catalyzing Culture Change

Collaboration and mindset shifts as levers for water and soil resilience

Shifting Mindsets & Driving Collaboration

- **Embrace risk** and experiment with new approaches
- Focus on **system-level thinking** for long-term impact
- Real progress happens when we:
  - **Stack benefits**
  - **Align interests**
  - **Work together across sectors and communities**