Water Security in the Great Lakes Region is a Structural Problem, Not (Just) a Policy Failure

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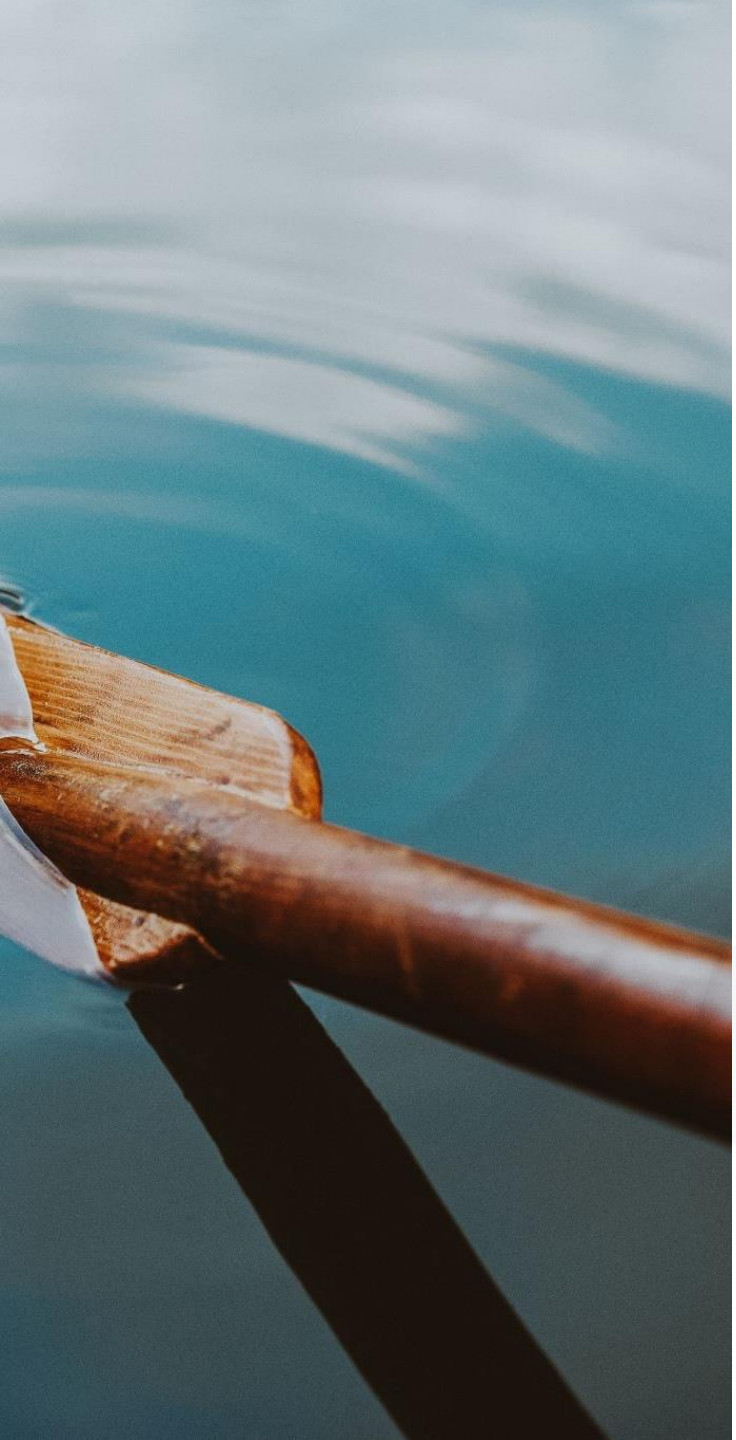


Key Points

Our current tools for managing water in the Great Lakes region are unable to protect long-term water security for the region.

This is a structural problem, not (just) an enforcement or funding failure.

What Is Water Security?

- Ability of a population to meet health, social, and economic needs with adequate water.
- Disagreement about needs, adequacy, and acceptability.
- Should include environmental resilience, not just human needs.

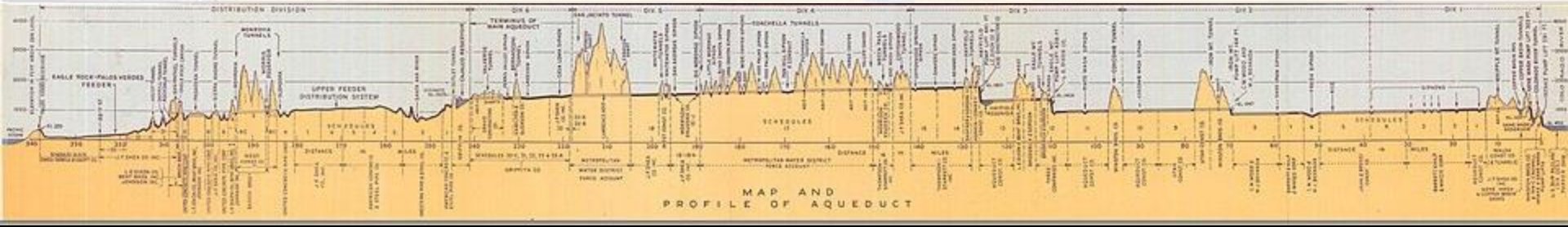
Stressors

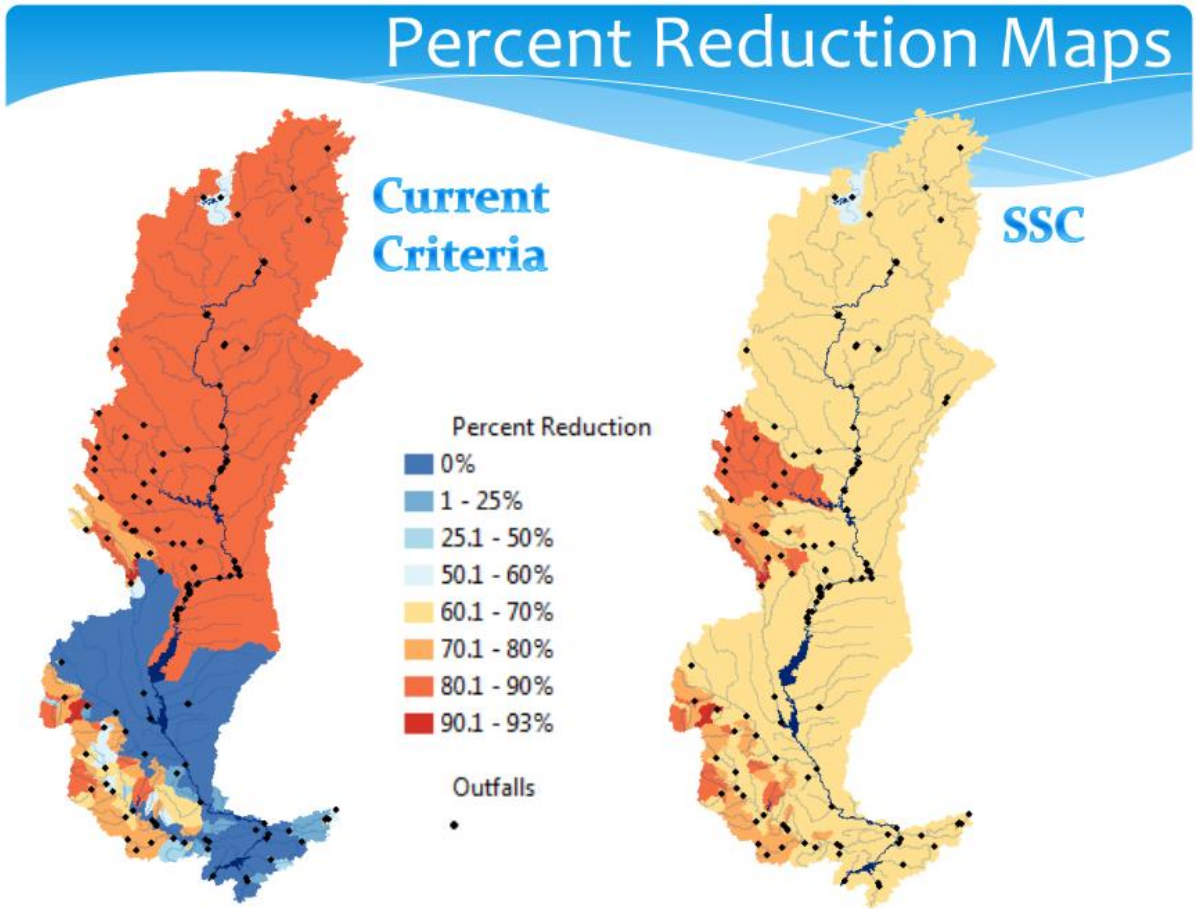
- **Our biggest threat is our own management choices.**
  - • Quantity (e.g. land use and well permitting)
  - • Quality (e.g. Nutrient loading, PFAS contamination)
  - • Climate (e.g. Flood resilience)



Management Regimes and Hydrosocial Cycles

- **Management Regimes are more than the collection of rules and infrastructure.**
- **The hydrosocial cycle: policy → infrastructure → outcomes → public values → new policy → → →**
- **This cycle can lock in forms of management that normalize degradation even if our values change.**





Wisconsin Department of Natural Resources 2018

Symptoms of Regime Failure

- **Normalizes degradation:** reactive rather than preventive, accepts degradation behaviors as baseline

- **Structurally inadequate:** fragmented, voluntary, not climate-ready.

This isn't *just* a funding or enforcement problem, because the success scenario still produces steady decline.

It's also not "incremental progress" as a result.

Agriculture:
Climate Change, PFAS, Diversification

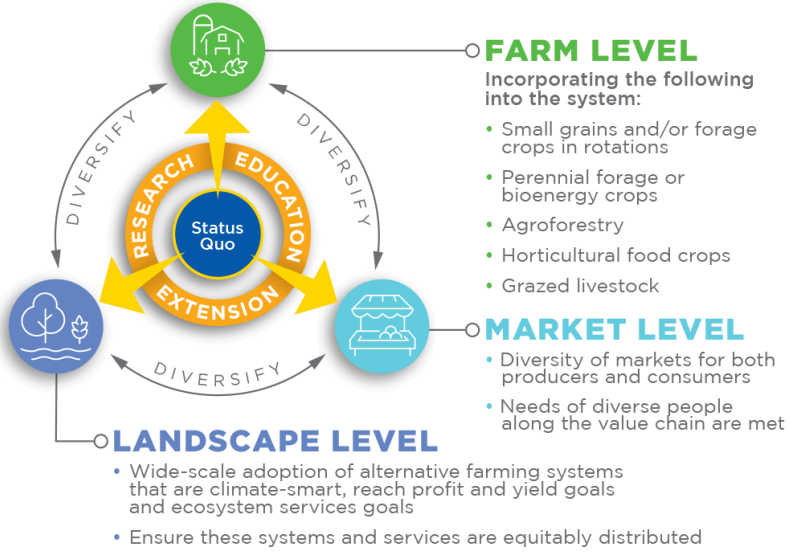
- Climate Change
  - Normalizing Degradation: Weak groundwater regulation and insurance incentives for risky practices.
  - Structural Inadequacy: Wrong incentives and land use for shifting rainfall patterns but few mechanisms to change them.
  - Needed: basin planning, soil/water standards, and reform of insurance and financing systems.

Agriculture:
Climate Change, PFAS, Diversification

- PFAS
  - Normalizing Degradation: Lack of standards and focused mainly on cleanup
  - Structural Inadequacy: Liability is unsettled and complex, problem is too big for the public to handle effectively
  - Needed: Legal clarity, legislation, treatment technology

Agriculture:
Climate Change, PFAS, Diversification

- Diversification
  - Normalizing Degradation: policy supports monoculture
  - Structural Inadequacy: Limited conservation programming excludes diversity as a strategy
  - Needed: focused programming, market support, and resource transfer



Structural Reform (and Basin Governance)

- Central Wisconsin Basin Plan: reorganize all water users under shared basin governance. (NCWRPC, WDNR, UWSP, River Alliance)
  - Integrate basin data (TMDLs, utilities, flooding, land use).
  - Define governance roles across management actors
  - Launch public water literacy campaign.

Policy Internalization (and Farm Lending)

- Wisconsin Agriculture Agenda: Internalization as opposed to external imposition.

Creating a food system that has water protection as an essential element.

2025-26 Project: Connect farm finance, lending, and land appraisal with conservation outcomes that will integrate soil and water health into creditworthiness metrics.

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Toward Long-Term Water Security

Long-term water security in the Great Lakes isn't plausible without significant structural change, particularly related to agricultural water use.

The key opportunities here are greater agricultural diversity, real steps toward integrated basin-level management, and internalization of the costs of non-compliance.

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