



# Nudging Minnesota Citizens toward Water Conservation

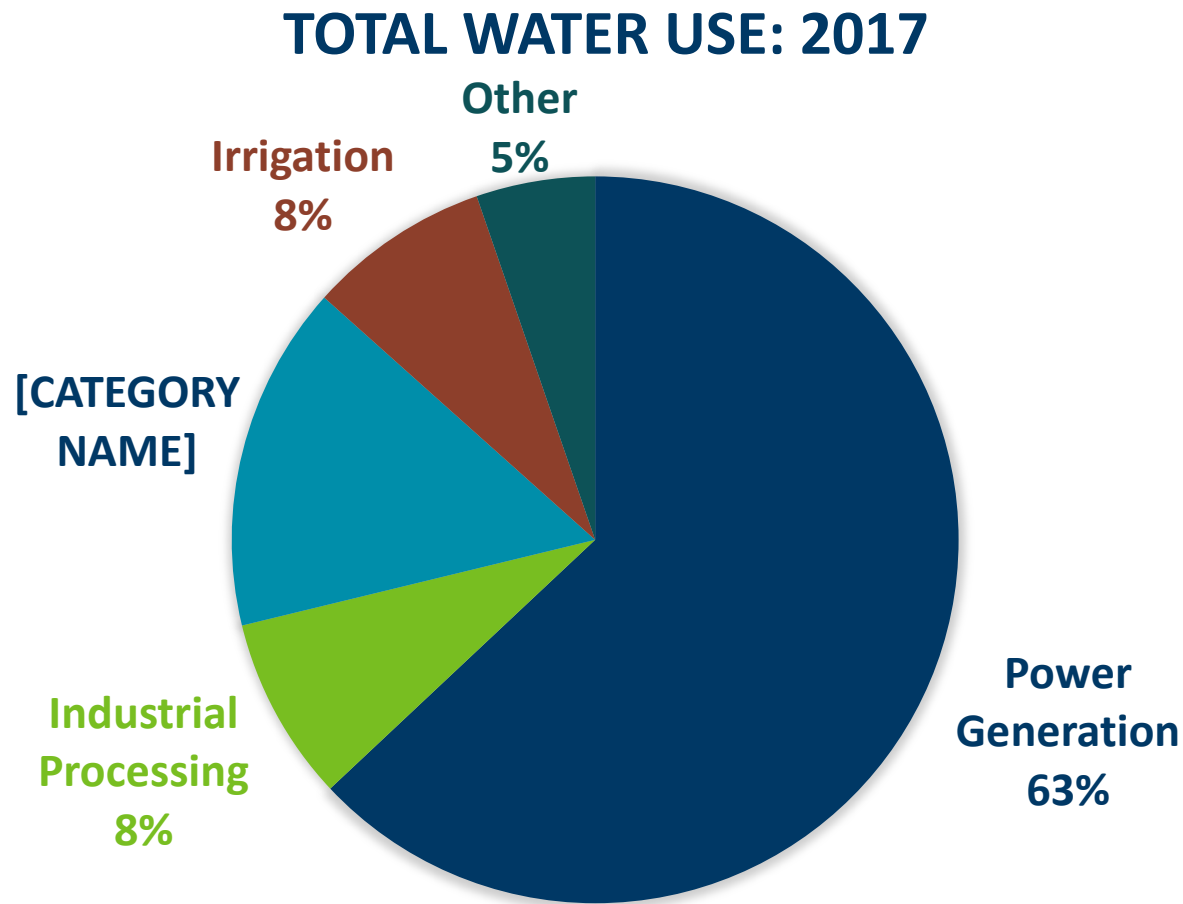
Carmelita Nelson - DNR Water Conservation

# Using Social Science to Improve Water Use Behavior

- Water is used by everyone
- Only the biggest users are regulated
- Reducing water use requires wide-spread behavior change and cultural shifts.
- Tapestry of flexible programs
- We are Water is working on the long-term community involvement and social norms



# Total Water Use: Reported in 2017

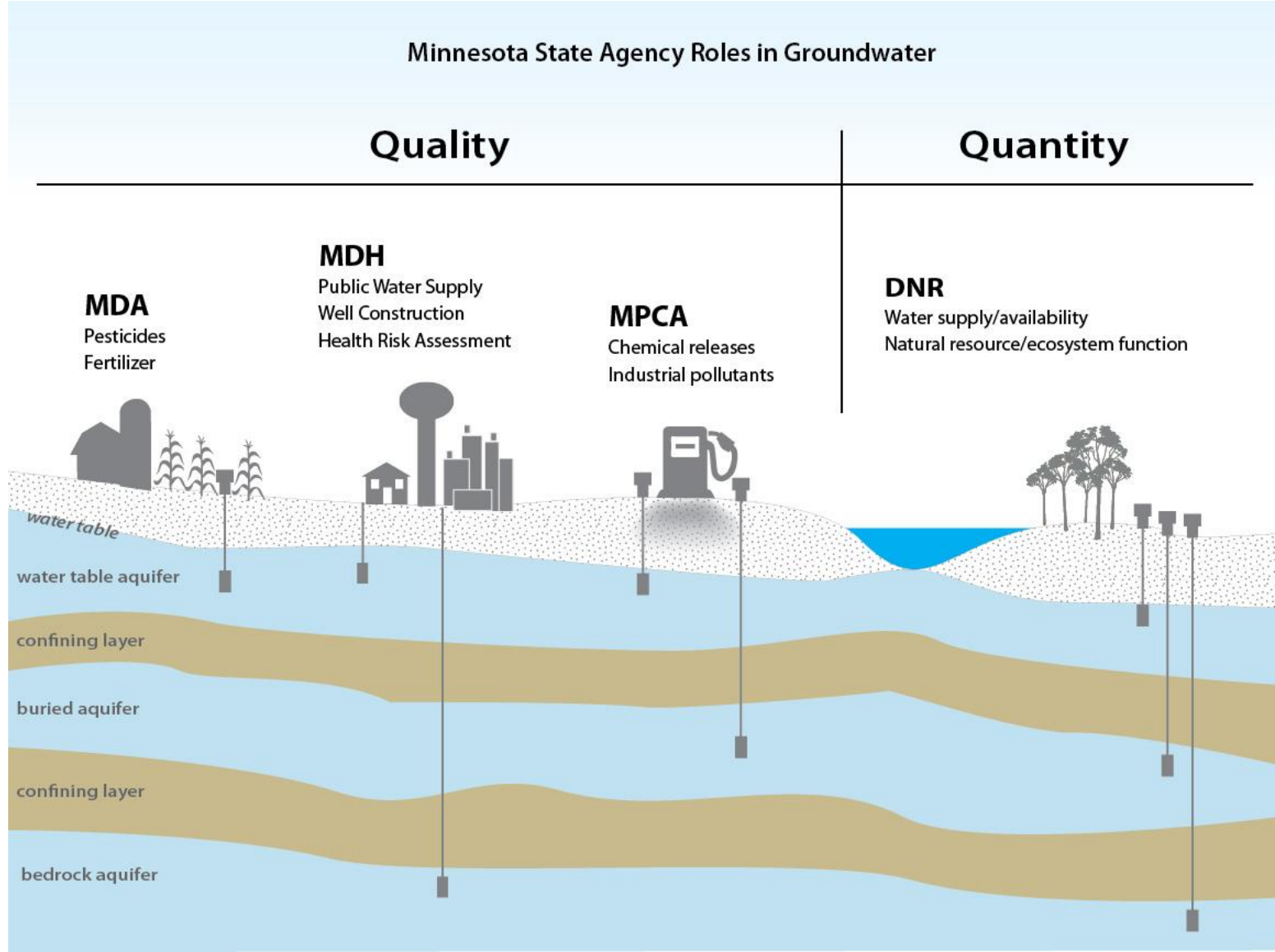


- 1.2 Trillion gallons/yr. reported
- Nearly 800 billion for power generation
- Power Generation: 63% of total water in 2017
- Water Supply: 16% of total water use in 2017

# One Minute Water History



DNR must protect long-term storability of aquifers and surface water resources





# Why Water Conservation in Minnesota?

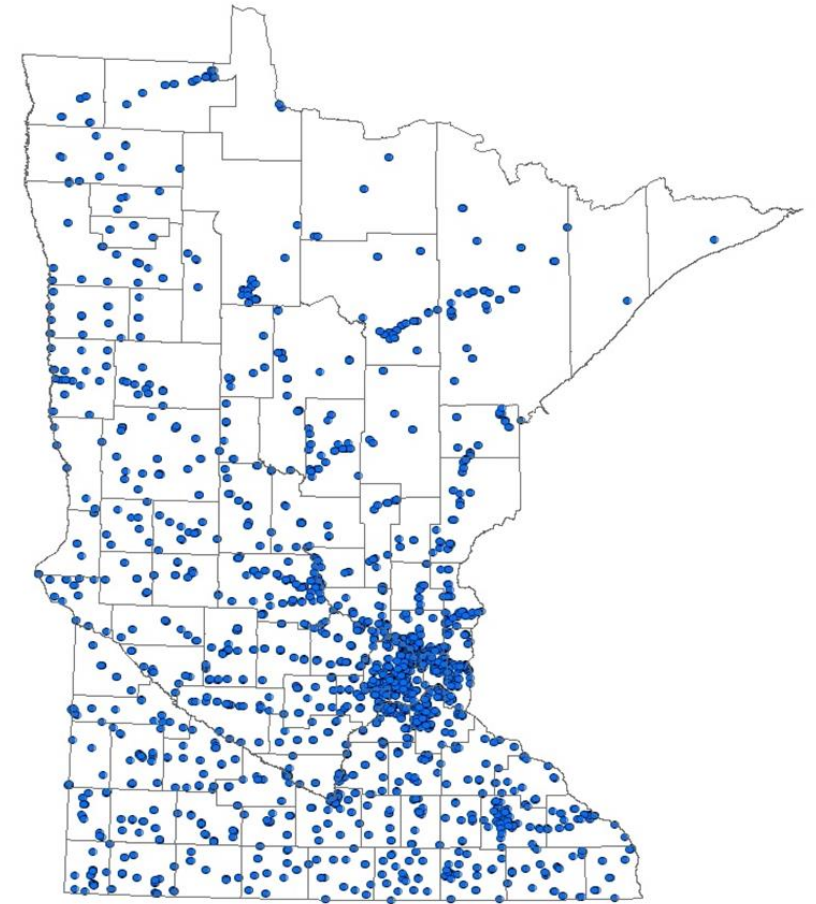
## Water Conservation Program Required under M.S. §103G.101

- Groundwater is at risk from overuse and contamination
- Growing Population & Economy
- Energy savings and changing climate
- Emergency & Resiliency
- Great Lakes Compact



# Recent DNR Water Conservation Highlights

- Local Water Supply Plan – summer water
- Partnership on Promoting Water Conservation
- We Are Water Traveling Exhibit Sponsor
- Water Conservation Reporting System
- Training and Conference –staff & cities
- Leak Detection Kits & WaterSense
- Commercial, Industrial, and Institutional
- Water Certification-Irrigation Endorsement



Target Water Suppliers First

# Partnership on Promoting Water Conservation

## Top 3 Objective:

1. **Minnesota water resources will be managed and used sustainably**
2. **Make water conservation a social norm, like seat belt use**
3. **The seven Conservation Objectives are met for water suppliers as measured by the Conservation Reporting System**



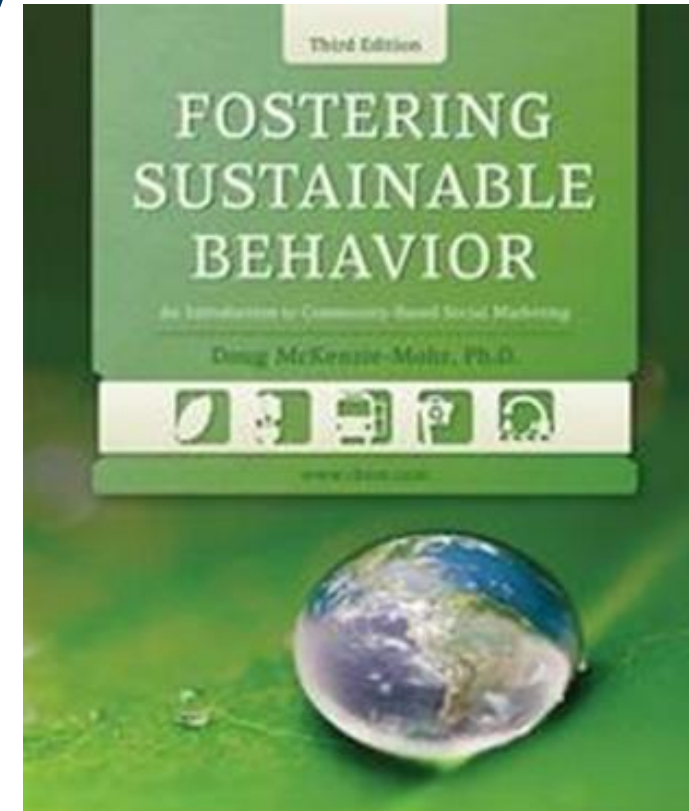
**Key Message = Every Drop Matters!**  
Planning a #SaveMNWater

# 5 Step Community-Based Social Marketing Process

Community-Based Social Marketing (CBSM) is about **changing behaviors**. Founded by Doug McKenzie-Mohr

Identify what Motivates Us and What Stands in the Way

1. Select Behaviors
2. Identify Barriers and Benefits
3. Develop Strategies
4. Pilot Test
5. Implement and Evaluate



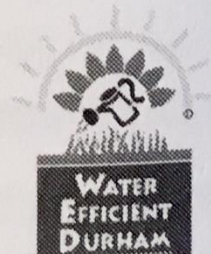




Is today an  
Odd or Even Day?

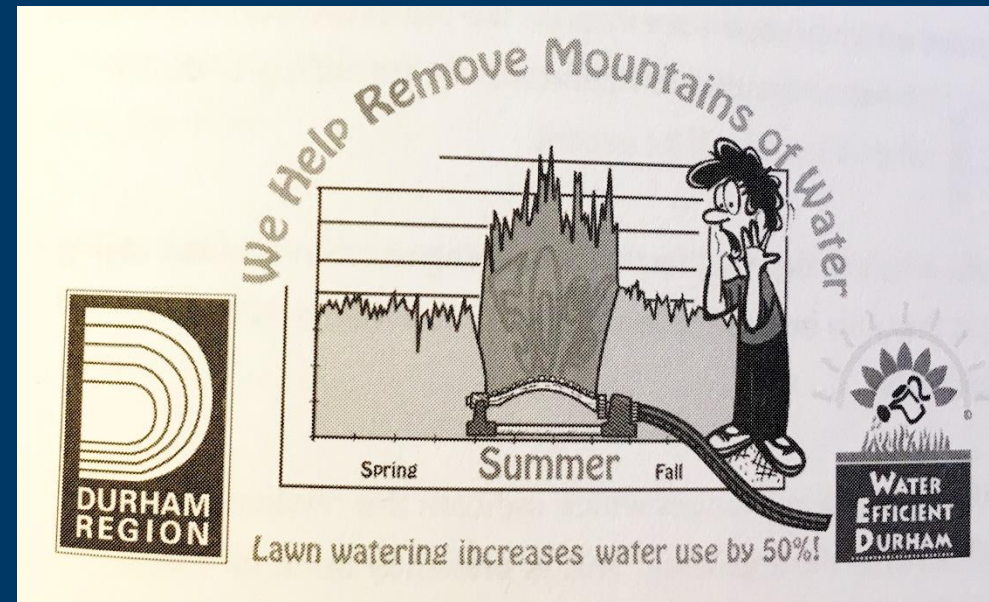
Has it rained in the  
last week?

Lawns need only  
1 inch of water  
per week.



## Reducing Outdoor Water Use

- 500 Canadian Homes x 3 tests
- Information-Intensive = 1% reduction
- Community-Based + Students = 32%
- Community-Based + Staff = 45%



# 1. Select A Behavior

- Define Target Audience
  - Geographic Area
  - Demographics
  - Subgroup – different message
- Existing Networks
- In-Community: live, work, play
- Meet people where they are
- Online, In-person, Both





# 1. Select A Behavior

What do you want them to do?

- One-time vs. Repeat
- End-state (water savings to occur) Proportion not doing it
- Non-divisible

Water Savings (gallons)

Impact

Opportunity

Overall Effectiveness

Probability



Likelihood of taking action

## 2. Identify Barriers and Benefits

### Don't Guess

- Literature Review – news, websites, reports, academic data
- Observation – Direct, unobtrusive, more than one person
- Focus Groups and Surveys – require method, money and time. If you lack these, do an *Intercept Survey*:
  - Ask “what makes this difficult?”
  - What makes this rewarding?



### 3. Develop Strategies



Commitment: Good Intentions to Action

Social Norms: Community Support

Social Diffusion: Speeding Adoption

Prompt: Remembering to Act

Communication: Effective Messages

Incentives: Motivation to Act

Convenience: Make it Easy to Act

Local  
Personal  
Relatable





## 4. Pilot Test

- How do we measure effectiveness?
- Is this working?
- If not, why not?
- What do we change?



## 5. Implement and Evaluate



How do we measure effectiveness?

Is this working?

If not, why not?

What do we change?

# Minnesota CBSM Example

CERTs is helping cities and other similar community-level organizations distribute energy & water saving products for free or at a low cost.



**Which items to distribute?**



**Where to get items?**

Utilities

Vendors

**How to distribute?**

Event giveaways

City hall pick-up

Apt. mgrs.

Food shelf bags

**Spread the word**

Press release

Newsletters

Social media

**[www.savingwattsdrops.org/bulkbuys](http://www.savingwattsdrops.org/bulkbuys)**

**Contact: Alexis Troschinetz, [atroschi@umn.edu](mailto:atroschi@umn.edu), 612-626-0455**

# WE ARE WATER



**Bienvenido**

**Tanyán yahí**

**Boozhoo**

**Welcome**



a hands-on  
exhibit!



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MINNESOTA POLLUTION  
CONTROL AGENCY

DEPARTMENT  
OF HEALTH

DEPARTMENT OF  
NATURAL RESOURCES

MINNESOTA DEPARTMENT  
OF AGRICULTURE





# People + Water + Choices

To meet clean water goals we must work in local communities to increase

- Understanding of local issues,
- Relationships on which to draw to solve these problems,
- Positive social norms,
- Emotional connections to people and places,
- Self and collective efficacy,
- A value of the collective good over personal interests.

*Davenport and Seekamp  
(2013)*



## 2018-19 "We Are Water MN" Host Site Communities

**St. Paul**  
University of Minnesota – Twin Cities  
Oct. 12 – Nov. 26, 2018

**Bemidji**  
Headwaters Science Center  
Dec. 1, 2018 – Jan. 13, 2019

**Crookston**  
West Polk County Soil and Water  
Conservation District  
Jan. 20 – March 4, 2019

**Duluth**  
Fond du Lac Band of Lake Superior  
Chippewa  
March 10 – April 22, 2019

**Austin**  
Cedar River Watershed District  
April 27 – June 16, 2019

**Northfield**  
Cannon River Watershed Partnership  
June 20 – July 28, 2019

**Grand Rapids**  
Itasca Waters  
Aug. 4 – Sept. 16, 2019

**Onamia**  
Mille Lacs Indian Museum, Minnesota  
Historical Society  
Sept. 25 – Nov. 2, 2019

*Check back here for updates about the latest tour events and happenings.*





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# Host Community Outcomes

**June 2016-Dec 2018**

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17,829  
exhibit  
visitors

1,709 water  
stories

647 opening  
ceremony  
attendees

15,444 event  
visitors

433  
community  
organizations





4 out of 5 visitors reported they were more knowledgeable about water issues after attending the exhibit (83%).



Survey respondents cited the importance of water protection and water conservation as the most important lessons of exhibit.



Local exhibits included rich content about the host site communities, residents, and perspectives.



**Visitors said they were more knowledgeable about water issues and were more likely to take action after attending the exhibit.**



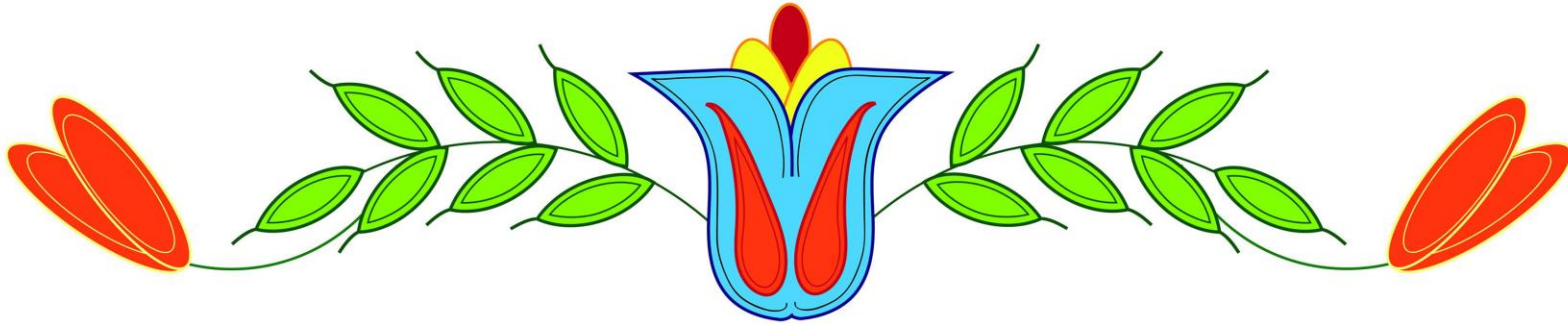
**Visitors Expressed increased awareness of personal responsibility for protecting and conserving water on exhibit “water drops”**

- **Simple personal actions (75%)**
- **Challenging person actions (20%)**
- **Community-level actions (5%)**

**Flexible content – hosts can use the project to meet their goals**



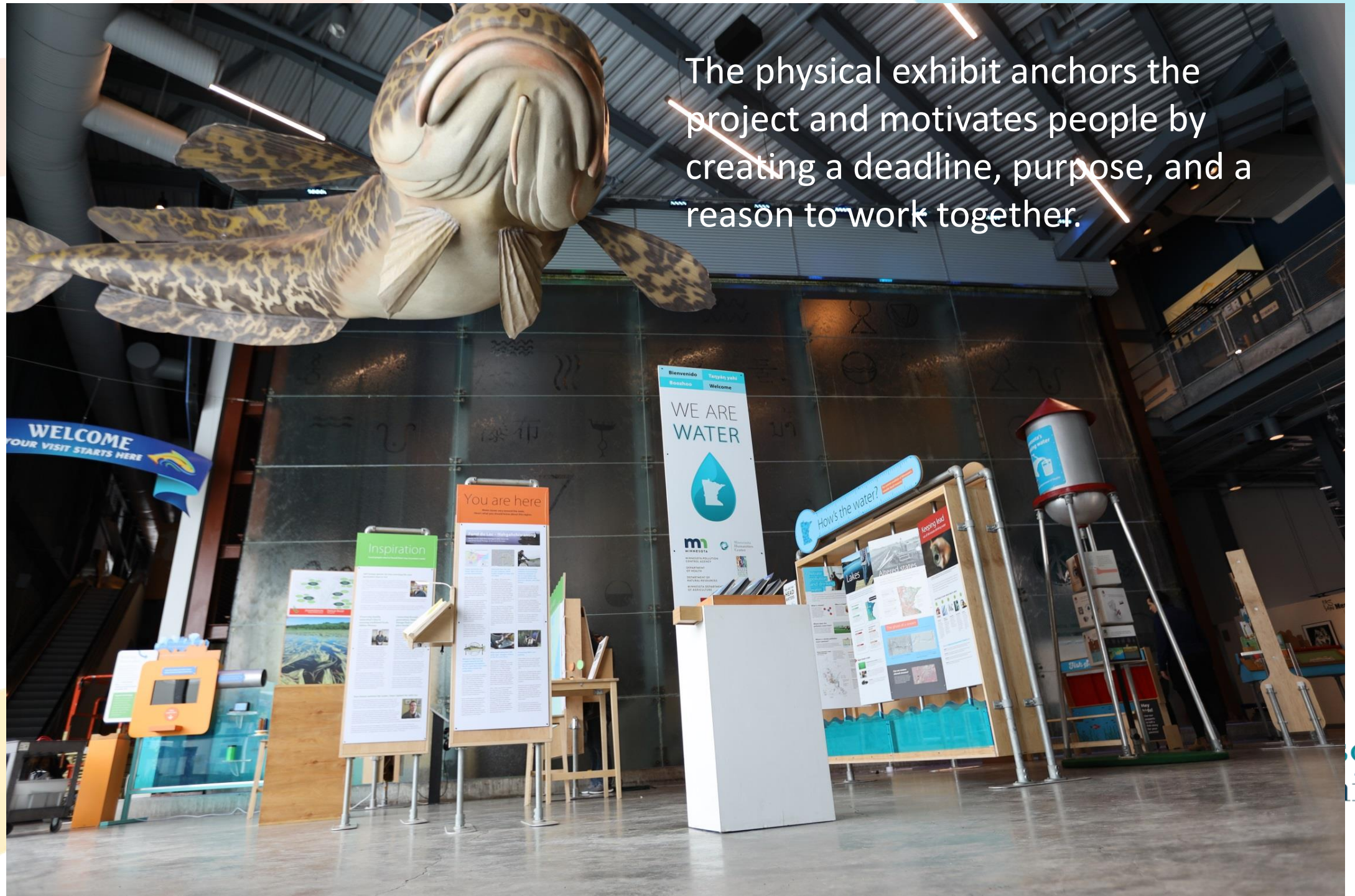
# WE ARE WATER



- ❖ Opening ceremony
- ❖ Paint night with Fond du Lac artist
- ❖ Moonlight snowshoe
- ❖ Native Plants and Herbal Concoctions Workshop
- ❖ Tribal treaty fishing forum
- ❖ Youth Climate Convening
- ❖ Photo & wild rice recipe contest
- ❖ Blue Heron research vessel tours
- ❖ Brighton Beach clean up
- ❖ Water Body story slam



The physical exhibit anchors the project and motivates people by creating a deadline, purpose, and a reason to work together.





We use story to share multiple voices and activate emotional connection







Herve Idjidina recounts his experiences drinking water in multiple countries in Africa and how he learned about the safety of Austin tap water for him and his family.

# Thank you

Reach out!

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[@wearewaermn](https://mnhum.org/water)