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
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
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
Reducing Outdoor Water Use

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

Is today an Odd or Even Day?
Has it rained in the last week?
Lawns need only 1 inch of water per week.

We Help Remove Mountains of Water
Lawn watering increases water use by 50%
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
What do you want them to do?

- One-time vs. Repeat
- End-state (water savings to occur)
- Non-divisible

1. Select A Behavior

Water Savings (gallons)

Impact

Overall Effectiveness

Opportunity

Probability

Likelihood of taking action

Proportion not doing it
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.

![Image of saving watts and drops]

<table>
<thead>
<tr>
<th>Which items to distribute?</th>
<th>Where to get items?</th>
<th>How to distribute?</th>
<th>Spread the word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities Vendors</td>
<td>Utilities Vendors</td>
<td>Event giveaways</td>
<td>Press release</td>
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<td>City hall pick-up</td>
<td>Newsletters</td>
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<td>Apt. mgrs.</td>
<td>Social media</td>
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<td></td>
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<td>Food shelf bags</td>
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[www.savingwattsdrops.org/bulkbuys](http://www.savingwattsdrops.org/bulkbuys)
Contact: Alexis Troschinetz, atroschi@umn.edu, 612-626-0455
WE ARE WATER

Bienvenido
Boozhoo
Welcome

Taŋyάŋ yahí

a hands-on exhibit!
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

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.
Increase Engagement

- Amplify community solutions for change.
- Build and strengthen relationships.
- Learn from and with multiple voices.
- Recognize the power of story and the danger of absence.

Minnesota Humanities Center
Host Community Outcomes
June 2016-Dec 2018

- 17,829 exhibit visitors
- 15,444 event visitors
- 1,709 water stories
- 647 opening ceremony attendees
- 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 personal 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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mnhum.org/water
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