

An interdisciplinary online journal rethinking the Mississippi from multiple perspectives within and beyond the academy.

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The cover image is a word cloud made from narratives representing We Are Water MN. Image courtesy of Minnesota Humanities Center.

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# TEACHING AND PRACTICE WATER AND EQUITY By Linda Kingery

Linda Kingery used these remarks to Lintroduce themes of water and equity at the August 2019 Statewide Event for the University of Minnesota Extension Regional Sustainable Development Partnerships. Linda was part of the team that hosted the We Are Water MN exhibit in Crookston, Minnesota, January– February 2019.

Water has long played an important role in my life. In fact, it played a role in my very beginning. Like all of you, I first lived in a water



The quieter side of the bridge over the Red Lake River in downtown Crookston, Minnesota. Image courtesy of Caryn Mohr.

environment, then was born into this world. A few weeks later, I was baptized with water. This sacrament joins me with many others that share my faith traditions, and water is sacred in many traditions.

I spent my early of my life in the Mississippi River basin in Minnesota, South Dakota, and Iowa, and have lived in the Red River basin for over 30 years. I earned degrees in environmental science with an emphasis in hydrogeology. This allowed me opportunities to work in northeast North Dakota on nonpoint source pollution projects, like safe siting of landfills and protecting riparian corridors, before taking my current position with University of Minnesota Extension.

<u>Hear Tamara Luna</u>'s <u>We Are Water MN</u> story, "Embrace your environment." (<u>transcript</u>) See more stories in the <u>online map</u>.

This is the first year that we named themes for the University of Minnesota Extension Statewide Event, which is the summer meeting that is hosted each year by one of the <u>Regional Sustainable</u> <u>Development Partnerships</u> (RSDPs). We may ask ourselves: why name themes? And why water and equity?



Linda Kingery frames the water and equity themes at the University of Minnesota Extension Regional Sustainable Development Partnerships Statewide Event in Crookston, Minnesota. Image courtesy of Caryn Mohr.

The RSDPs serve large regions and engage communities around a wide range of topics, so selecting a theme is an experiment to help us focus our thinking, conversations, and interactions on a couple important topics. This year's focus on water and equity highlights common themes of project work across all regions, including in the northwest. In addition, water and equity provide a link to the Minnesota Humanities Center's We Are Water MN exhibit as it moves around greater Minnesota and visits two University of Minnesota campuses. And, water and equity guide our work together with the Institute on the Environment (IonE) and its <u>Impact Goals</u>, particularly the one that seeks to ensure clean drinking water to all Minnesotans.



RSDP staff and board members paddling the Red Lake River near Crookston, Minnesota. Image courtesy of Caryn Mohr.



Elizabeth Bailey, Conservation Corps member, introduces We Are Water MN events for the Crookston Exhibit. Image courtesy of Terry Tollefson.



Sheila Capistran, NWRSDP board member, and C Terrence Anderson, Center for Urban and Regional Affairs (CURA) staff, share perspectives at a Statewide Coordinating Committee meeting. Image courtesy of Caryn Mohr.

### What do we mean when we say equity?

In May, the RSDP staff and executive committee spent time generating definitions of equity pertinent to our goals and considering how the RSDPs can build equity in our processes. Here are three answers that came from that discussion. We are working toward equity when we:

• Honor other ways of knowing and doing

- Recognize the role of privilege and the historic and persistent disparities
- Ensure access to opportunity for decision-making and resources

<u>Hear Katya Zapeta</u>'s <u>We Are Water MN</u> story, "Rivers can remember." (<u>transcript</u>) See more stories in the <u>online map</u>.



The water cycle. Image courtesy of the Minnesota Humanities Center.

### What do we mean when we say water?

Perhaps this seems like a simpler question. We might think about the science of water. Hydrology, as a field of study, began in the 1930s by Robert Horton (1931) who founded this new area of science and described the natural cycle of water. Powered by solar energy and gravity, this natural process, called the hydrologic cycle, traces the movement of water in all its phases. Many of us learned about this cycle in middle grades of school and some people have specialized in very specific aspects of this science. Another way to describe water is through our personal and interpersonal experiences. The We Are Water MN exhibit and process, for example, aims to collect water stories to shed light on these ways of understanding. Here I share some highlights from hosting the We Are Water MN exhibit in Crookston in the context of a model developed by Dr. Mae Davenport.



Multi-level Community Capacity Model, empowering people and engaging communities in clean water. Davenport and Seekamp, 2013. Image courtesy of Mae Davenport.

# We Are Water MN in Crookston

Davenport's multi-level community capacity model for empowering people and engaging communities in clean water efforts depicts nested circles of experience, an interaction moving outward from individual to relational to organizational to programmatic. Across these nested circles of capacity, culture and equity inform our understanding and actions. Culture includes the values, customs, and practices or our society; equity is about trust, legitimacy, and fairness. The people who visited the We Are Water MN exhibit in Crookston, Minnesota expressed an increased sense of responsibility and concern. Participants mentioned talking with others about water use and water conservation. They shared stories about recreation in and around water and memories of special places. Many people responded to the exhibit in Crookston noting they are now inspired to seek out others who are working on water resource issues.



Lorna Hollowell, Director of Diversity and Multicultural Affairs at the University of Minnesota Crookston and part of the host team, introduces Jennifer Tonko from the Minnesota Humanities Center at the We Are Water MN kickoff event in Crookston, Minnesota. Image courtesy of Terry Tollefson.



Anna Peterson, University of Minnesota Extension, and her son Vincent enjoy a moment on Big Floyd Lake near Detroit Lakes, Minnesota. Image courtesy of Glenece Hanson.

# The Hydrosocial Cycle

Because water is so integrated in our experiences, the term "hydrosocial cycle" has been used to define a socio-natural process by which water and society make and remake each other over time and space. This goes beyond the ways we as individuals and organizations relate to water.

Jaime Linton, Jessica Budds, and Rachael McDonnell (2014) describe this hydrosocial cycle with three components: H<sub>2</sub>O, social power or structures, and technology and infrastructure. The resulting water at any point in time and space is the product of these three components acting on one another. Water is therefore not only its material, chemical composition; water also shapes and is also shaped by humans and embedded in social, cultural, and political practices. This model is very practical and logical.

I took a trip to the Columbia River basin in the summer of 2019. There, this making and remaking of water and society includes dams, hydroelectric generation, apple and cherry orchards, and vineyards. These hydrosocial relations also resulted in the degradation of the salmon fishery that was central to the culture and identity of the Yakama, Nez Perce, and Umatilla Nations.

# The Red River Basin as Hydrosocial

In the Red River basin, the hydrosocial cycle includes development of surface water and groundwater sources, wells serving Crookston, flood protection projects like retention areas and dikes, and a vast surface drainage system, now coupled with the rapid implementation of pattern tile drain. All of these developments were made possible by the transfer of 11 million acres of land from the Red Lake Nation to the U.S. government in 1863 through a treaty signed at what is now known as Old Crossing, currently a county park at a natural ford on the Red Lake River. At the RSDP Statewide Event, each participant was invited to bring water from their place. The waters were poured into a common bowl, Gathering the Waters. Each person added water embedded in the hydrosocial cycles from their home watersheds, taps, or wells, taking care not to transport water from infested sources. This water is much more than H<sub>2</sub>O. It is the water that results from precipitation, runoff, infrastructure, and social structures.



Hydrosocial cycle, Linton and Budds, 2014. Used with permission.



Mike Hirst, Lake of the Woods Soil and Water Conservation District (SWCD), in front of Willy the Walleye in Baudette, Minnesota. Image courtesy of Caryn Mohr.

# Thinking Water and Equity at the Statewide Event

Later in the Statewide Event, in Heritage Hall on the University of Crookston campus, we heard presentations on projects related to this making and remaking of social and natural systems. Mike Hirst from Lake of the Woods shared the work of the Keep It Clean Committee including the sustainability assessment completed by students from the Humphrey School of Public Affairs. Torin McCormack from Roseau River Watershed District described the development of a recreation plan, a project assisted by the College of Design. Henry VanOffelen from the <u>Minnesota</u> <u>Board of Soil and Water Resources</u> presented water quality and water quantity data and trends for the Red River basin, and Nicole Bernd of <u>West Polk Soil and Water Conservation</u> <u>District</u> addressed groundwater concerns. Kate Brauman and Fred Rose from the Institute on the Environment (IonE) framed up the IonE Impact Goal of ensuring clean drinking water for all Minnesotans.



Nicole Bernd, West Polk Soil and Water Conservation District (SWCD) and We Are Water MN site host, describes SWCDs as the "boots on the ground" for bringing water quality information to agricultural producers. Image courtesy of Caryn Mohr.

Then we all traveled to Micah, the Minnesota Institute for Contemplation and Healing. Micah is near the previously mentioned Old Crossing, site of the signing of the 1863 treaty. At Micah, we heard from Sharon Day, Clean Water Council member and the organizer of <u>Nibi Walks</u>, an Indigenous-led practice of extended walks along waterways as a ceremony to pray for and honor the water.

In addition, we all had an opportunity to consider these topics of water and equity through one of three activities: expressing your understanding of water and equity in art, engaging in a conversation across cultures around water and equity, or planning a source water protection project.

As I reflect on the afternoon and recall what I heard from participants, I am grateful that people found new ways to connect with one another around water and equity. Whether planning a project or reflecting on personal water stories through art or conversation, people were inspired to share perspectives and to listen to the stories of others. Our best hopes for the future depend on our collective ability to strive for the dreams we share together.



Sharon Day, Clean Water Council member and Nibi Walk organizer, shares the tradition and value of honoring water. Image courtesy of Caryn Mohr.



Jane Olive captures two floods on the Zumbro River in Mantorville, Minnesota. She explained that "The water from north and west flowed downstream where, at the curve in Mantorville, it built up and overflowed the banks into homes, businesses, streets." Photograph courtesy of Caryn Mohr.



Ben Anderson shares that his Jackson Pollock-inspired painting "reflects different types or colors of people using and moving with water. Our waters should be healthy, sustainable, and accessible to everyone." Photograph courtesy of Caryn Mohr.

### References

Budds, Jessica, Jamie Linton, and Rachael McDonnell. 2014. "The Hydrosocial Cycle." *Geoforum* 57: 167-169.

Horton, Robert. 1931. "The field, scope, and status of the science of hydrology." *EOS: Transactions American Geophysical Union* 12 (1): 189-202.

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### About the Author

Linda Kingery serves as executive director of UMN Extension's Northwest Regional Sustainable Development Partnership. Her education in environmental studies with emphasis in hydrogeology, and experience in watershed protection provide her with long-term familiarity with the Red River basin. She and her husband, Brad, have raised their family in the region, and now live in a home in the woods in the Lower Red Lake watershed.