

## Communication is Key to Protecting Minnesota Waters

Through four years of coursework as a biology major at the University of St. Thomas (UST), I understand why water pollution is harmful. I have learned how chemical and organic pollution affects a body of water and endangers aquatic species. This information was presented in my classes with the negativity that is often tied with environmental issues. Emphasis is placed on the harm humans are causing our natural resources, yet this is not enough to encourage us to change our habits. While I know the consequences of pollution, I would give little thought to the water that is running along the street and into the storm drains. My exposure to the Master Water Stewards (MWS), a program of Freshwater Society (FWS), through service learning at UST has changed my mindset. Working with MWS has allowed me to take concepts I already knew—how pollution harms natural bodies of water—and learn how to communicate the message so that someone will want to do something about the problem.

There is a lot of evidence showing that humans have a great impact on the environment, but there are skeptics who deny that we need to make changes. At Allina Health's recent Climate Change and Public Health Conference, much of the time was devoted to debunking myths. As an audience member, I could not help but wonder why someone who would commit to the all-day conference would need convincing of the urgency of environmental issues. I was under the impression that everyone in the room was on the same page. It seems that scientists spend so much time explaining *why* change is needed that there little left to explain *how* improvements can be made.

Focusing on the 'how' is where the MWS program excels. Stewards present simple solutions to the issue of water pollution. Gloom and doom does not inspire, and technical knowledge can be intimidating. Framing the message in a particular way has significant impact

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on the outcome; MWS emphasizes that if you are a human, your daily activities are affecting water quality, but you are also in the position (and you do not have to be an expert) to protect water bodies.

I was drawn to the program's community approach to environmental stewardship because water pollution is not an issue that will be solved by any one individual. Stewards are trained to raise awareness among personal networks that everyone's daily habits affect water. Pollution comes from many different sources: storm water flows across rooftops, parking lots, sidewalks, and streets, carrying any chemicals and organic matter with it. This water reaches storm drains, where it is directed—untreated—into lakes, rivers, and streams. Stewards educate their communities about the resources that are available to make pollution prevention possible. Moreover, they emphasize that small changes can make an impact and highlight successful examples that are already in place in the community.

Each class of MWS attends a watershed tour during their training. Minnesota land is divided into 46 watershed districts, or areas in which rain flows into a common body of water. I was able to join the tour of the Minnehaha Creek Watershed District and experience this aspect of MWS training. We were shown community projects both big and small. A storm water treatment and research system is under construction, and it will remove pollutants from an estimated 170 million gallons of water. The simple rain gardens that we saw planted on commercial lots are just as important, helping to soak up rainwater. The tour gives stewards positive features on which they can focus when creating their own projects and providing education for their communities.

Suggestions that stewards make to their community members are research-based, but they pay close attention to how the message is communicated. Technical details support the need for

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action, but facts are not always the most persuasive tools. Steward-in-training Kristine Maurer has a background in biology similar to my own (she is a UST alum) and completed graduate work in wetlands. We agreed on the value of making science accessible to a non-expert audience. That sounds easy, but it takes sophisticated communication skills.

“You are very aware that the communication of scientific information is often times really difficult and challenging, but it’s super important,” Kristine said. She emphasized that it can be effective to choose a narrow focus to persuade community members to make change. Avoid overwhelming people with information, and talk about specific actions people can take.

“If the problem is too big, I think it’s difficult for people to conceptualize how they’re going to make an impact,” she said. She used the example of picking up pet waste as a simple measure to prevent water pollution. “Bring that into a context that matters [to a community member]... [Bring] in the fact that not only are [they] not going to be stepping on it anymore, ruining [their] nice new shoes, but [they’re] also going to be really benefitting the water features around [them].”

Whether the motive is creating an attractive landscape on a property with a rain garden or protecting the diverse species inhabiting our bodies of water, there are numerous ways to prevent water pollution. MWS graduates communicate that projects can have both personal and environmental benefits. Not everyone can be expected to dedicate time and effort like a master water steward—this level of environmentalism is overwhelming to many, myself included. It does not take an expert, however, to make positive change. While scientific details are important in creating water management strategies, they are not always necessary in encouraging individual action. Finding ways to show how everyone can contribute and focusing on specific measures against pollution will protect our bodies of water.