



Delaware Master Gardeners learn the importance of clean water to the state's environment and economy.

## IMPORTANCE OF CLEAN WATER

Article by Adam Thomas | Photos by Wenbo Fan | March 13, 2017

### Delaware Master Gardeners take part in Water Warrior workshop

University of Delaware Cooperative Extension's Master Gardeners spent two days in February learning about the importance of clean water to the state's environment and economy.

Participants explored simple, low-cost tips for protecting and improving local water quality in their backyards and community and engaging on topics such as green infrastructure as part of a Water Warrior citizen advocacy workshop.

The workshop featured presenters from UD, the Delaware Nature Society (DNS), the Delaware Water Resources Center (DWRC) and the Brandywine Red Clay Alliance, and was affiliated with the Clean Water: Delaware's Clear Choice campaign, a statewide education and outreach effort led by DNS and focused on clean water.

Many of the presenters were also part of the Clean Water Alliance, a group of diverse stakeholders that supports the Clean Water Campaign and the Water Warrior workshops.

Carrie Murphy, extension agent and the lawn and garden program leader, said that a representative from DNS approached her about holding the training for Master Gardeners, saying it was a natural fit as the gardeners already get a baseline of training on how to help homeowners with water problems.

"There are bigger efforts in neighborhoods to manage the water but then on your own property, and in your landscape, there are slight modifications you can make, for example reducing lawn, planting more native plants, considering a rain garden if appropriate, to more effectively manage water. This has been our focus but we've never had extensive training to connect these suggestions to the bigger picture, so this was a great opportunity to do this," said Murphy.

The first day of the workshop focused on sustainable landscaping, specifically how gardens relate to water management, and highlighted some of the challenges in New Castle County with regard to water management and how Master Gardeners can help people troubleshoot those issues.

Sue Barton, associate professor and extension specialist in the Department of Plant and Soil Sciences in UD's College of Agriculture and Natural Resources (<http://canr.udel.edu/>), presented on sustainable landscaping practices, such as bioswales, a landscaping element designed to concentrate or remove pollution from surface water runoff, and native plants that are appropriate for rain gardens.

A DNS representative gave an overview of the Clean Water Alliance and a presentation on "Water Warrior 101: Citizen's Guide to Clean Water."

## Individual contributions to clean water

There are a number of ways that individuals can help contribute to clean water through individual practices, which is the focus of Water Warrior training. Gardeners, in particular, have a unique relationship with water and can have an immediate impact based on the individual practices that they utilize.

The second day included presentations on the value of watersheds and water in Delaware from Martha Narvaez, a policy scientist at the DWRC, located in UD's Institute for Public Administration, and an overview of water restoration in the Brandywine-Red Clay Valley from Ellen Kohler of the Brandywine Red Clay Alliance.

The DWRC is on the Clean Water Alliance steering committee and Narvaez said they have been working with DNS on their campaign, trying to attract new alliance members and sharing information about the importance of clean water.

They have also been educating the public on their role in water quality, their impacts on water and the need for clean water.

"We conducted an economic analysis on Delaware's watersheds in 2012 (<http://www.wrc.udel.edu/wp-content/publications/EconomicValueDelawareWatersheds.pdf>) and, using three different methods, we found watersheds contribute anywhere from \$2-6.7 billion annually to the state's economy. We felt that quantifying [this number] was important so that we could give people a better understanding of why protecting water is important," said Narvaez.

One of the biggest challenges in protecting water in Delaware and throughout the country is that water crosses state lines, so while Delawareans can address the pollution once it reaches the state, it is increasingly difficult to address the pollution at out-of-state sources.

"How do you address pollution in other states when you really have no regulatory authority to do that? That's one of the challenges with water. People have different uses downstream and you may not have control of the sources upstream so you need to work to have innovative ways to incentivize people upstream to clean up the water so the people downstream are getting clean water," said Narvaez.

As far as working with the Master Gardeners, Narvaez said she was happy to participate in the event and share the research DWRC has conducted on the importance of water resources.

"I think the Master Gardeners are a perfect group to carry that through because they are the people on the ground talking to home owners and really connecting with the public and I think they can connect in a way that a lot of us can't and so I was really happy to be able to participate," said Narvaez.

Those interested in becoming Master Gardeners or learning about Master Gardener services can call 302-831-COOP or visit the Cooperative Extension website (<http://extension.udel.edu/lawngarden/mg/>).

Those interested in learning more about the Clean Water Alliance (<http://www.cleanwaterdelaware.org/>) or hosting a Water Warrior training, can contact Brenna Goggin, director of advocacy at DNS, at 302-239-2334 ext. 132 or e-mail [brenna@delawarenaturesociety.org](mailto:brenna@delawarenaturesociety.org) (<mailto:brenna@delawarenaturesociety.org>).

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