



# Washington Conservation District Conservation Connections

SUMMER 2012

## The Milkshake and the Beach

If you are seeing more beach than usual on your favorite groundwater-fed lake, you are not alone. Across Washington County, waters are low in groundwater-fed lakes and streams. There is no simple explanation, but if we think of groundwater as a milkshake, it's safe to say there are too many straws in the cup, and it's not being refilled often enough.

"Weather, population growth and land use all affect our groundwater levels," said Washington Conservation District (WCD) Administrator Jay Riggs. "We can't change many of those factors, but by better understanding the connection between groundwater and surface water, we can work to make improvements."

Low rainfall is one simple explanation. When rain and snowmelt seep into the ground, it recharges our aquifers, the underground layers of rock that collect and confine groundwater. According to daily readings from the rain gauge at our Stillwater office, half of the last 10 years have been lower than the 30-year precipitation average. Less precipitation means less water to replenish the groundwater that feeds many lakes and streams.

Population growth is another factor. Around here, most water comes from the ground, so when there are more people, more wells are drilled and more groundwater is used. Every time a new well goes into an aquifer, a new straw goes into the groundwater milkshake. And some individual, government and commercial water users are very thirsty.

How we use our land also affects our ability to recharge groundwater. As more people live in the county, prairies and forests are replaced by houses,

driveways, sidewalks and streets. The hard, impervious surfaces created by development do not allow rain and snowmelt to seep into the ground and recharge the groundwater. It's like a hard plastic cover over the milkshake — preventing refills that would keep the cup full.

When storm sewers dump runoff into local lakes and rivers, it can cause a temporary rise in water levels, but stormwater is not a cure for low water. Many of our low lakes have only a small area of land that drains to them, and stormwater tends to be full of debris and trash that is not good for the lakes and streams.

What is the solution? WCD is working with local landowners to make some holes in the milkshake lid, creating places where stormwater can be filtered by long-rooted native plants and soak naturally into the ground. Through raingardens, infiltration basins and other projects we are making progress in supporting groundwater recharge, even in very developed areas.

So if you are concerned about the larger beach and lower water levels at your favorite lake, remember: you can help. If you are interested in learning how you can do more to "fill up the milkshake" give our office a call!



Raingardens create places for rain and snowmelt to soak into the earth and recharge groundwater. Tom Clark of All-Weather Services and WCD's Pete Young are shown here, checking a raingarden we helped develop at the Valley Ridge Mall.

Thanks to everyone who purchased trees or rainbarrels through our annual sale. More than 500 households added conservation measures to their land through our programs!

### STAFF UPDATE



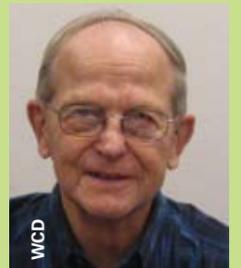
Meet Andy Schilling, our new Watershed Restoration Technician. Andy brings great design and build experience in stormwater Best Management Practices (BMPs) and an education background in landscape architecture and geology...explaining his intense interest in any rock on site. Andy will be helping with BMP work, providing design and subwatershed analyses primarily in the Brown's Creek and Rice Creek Watershed Districts within our county.



Matt Entinger joins us this summer from the Minnesota Conservation Corps Apprentice Academy. Say "hi" if you see him on a project.

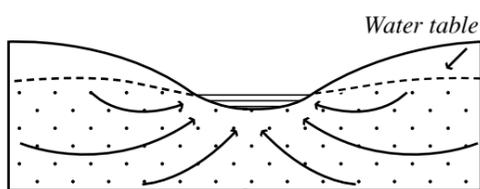
### SUPERVISOR NEWS

Bob Rosenquist, from Hugo, has been appointed to the WCD Board of Supervisors, to fill an unexpired term for District 1. Bob has experience with many of the programs run by the WCD.

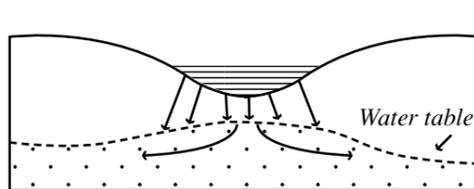


Due to the redistricting in the county, all of our Supervisor positions will be on the ballot in November. Watch for them listed as Soil and Water Supervisors. Candidate information is posted at [www.maswcd.org](http://www.maswcd.org). Please vote.

### Gaining Stream



### Losing Stream



When groundwater discharges into a stream, it's known as a gaining stream. But when the groundwater falls below the bottom of the stream, it becomes a losing stream, with its water soaking back into the ground to recharge the groundwater. When groundwater is depleted, more of our streams — and lakes — become water losing resources.

### DID YOU KNOW?

There are more than 10 miles of designated trout stream in Washington County. Trout need excellent water quality in order to survive and the cooler groundwater that flows into these streams is a vital component. Trout will feed on macroinvertebrates, or aquatic bugs. The population dynamics and abundance of these bugs, including mayflies shown here, can be an excellent gauge of water quality!



### Washington Conservation District (WCD)

#### Board of Supervisors

Bob Rosenquist, District 1  
Sarah Hietpas, District 2  
John Rheinberger, District 3  
Louise Smallidge, District 4  
Jim Levitt, District 5

#### Office Staff

Call us at 651-275-1136 or visit the staff page of our website — [www.mnwcd.org](http://www.mnwcd.org) — for e-mail addresses.

Jay Riggs, District Manager, ext. 20  
Shari Larkin, Administrative Assistant, ext. 27  
Erik Anderson, Water Resource Specialist, ext. 32  
Amy Carolan, Natural Resource Specialist/  
MSCWMO Administrator, ext. 22  
Matt Downing, Senior Water Resource Technician, ext. 29  
Wendy Griffin, Natural Resource Specialist, ext. 24  
Angie Hong, Water Resource Education Specialist, ext. 35  
Karen Kill, Brown's Creek Watershed District Administrator, ext. 26  
Adam King, Water Resource Technician, ext. 23  
Tara Kline, Natural Resource BMP Technician, ext. 28  
Andy Schilling, Watershed Restoration Technician, ext. 43  
Rusty Schmidt, Natural Resource Specialist, ext. 36  
Jyneen Thatcher, Natural Resource Specialist, ext. 37  
Jessica Thiel, Senior Water Resource/GIS Technician, ext. 30  
Katie Wigen, Water Resource Technician, ext. 44  
Peter Young, District Engineer, ext. 21

PROVIDING QUALITY TECHNICAL AND EDUCATIONAL SERVICES FOR THE  
CONSERVATION OF NATURAL RESOURCES IN WASHINGTON COUNTY SINCE 1942.

1380 West Frontage Road / Highway 36 / Stillwater, MN 55082 / 651-275-1136 / [www.mnwcd.org](http://www.mnwcd.org)



Spring rains have helped our water levels. Streams are flowing, flowers are blooming and fish are biting!



Washington Conservation District  
1380 West Frontage Road, Hwy 36  
Stillwater, Minnesota 55082

NON-PROFIT ORGANIZATION  
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### PARTNERS IN CONSERVATION

#### St. Croix River Association

Protecting the St. Croix River's water quality has been part of the WCD's mission for decades, so it's important for us to work with non-profit organizations that share our goals. The St. Croix River Association (SCRA) has emerged as a very important collaborator.

Founded more than 100 years ago, SCRA is the oldest citizen organization in Minnesota. In 2008, in response to growing concerns about the St. Croix and its water quality, the group underwent a significant reorganization, moving from a volunteer stewardship group to a formal, staffed organization. Today's SCRA is proving to be not only a great partner to WCD, but a leader in helping multiple agencies in the St. Croix Basin achieve a more coordinated, strategic approach to improving water quality.

The SCRA is able to act as a fiscal agent for grant funds, including \$500,000 secured from Minnesota's Clean Water Fund to improve water quality in Lake St. Croix. WCD partnered with SCRA to identify and implement priority conservation projects. SCRA also received funds through the Legislative Citizen Commission on Minnesota Resources to develop a basin-wide approach, with WCD and others, to prioritize conservation projects that improve habitat, water quality and recreational opportunities.

SCRA can respond quickly to newly identified problems, from holding public forums on Asian carp to forwarding reports of potential damages to the appropriate regulating authorities.

"We would like to be thought of as the 'go to' organization to start action along the River" says SCRA Board Member Randy Ferrin. "We can make the connection between people and this wonderful resource." SCRA Board Members have diverse backgrounds that provide a cross-section of ability and knowledge that can expedite action. Some are scientists who understand water quality or habitat needs, and all have a personal interest in the River and watershed.

The WCD has worked cooperatively with public agencies on improvement projects along our stretch of the St. Croix. With SCRA as a partner, we can expect more exciting ventures to happen throughout the St. Croix Basin.



WCD, SCRA and National Park Service staff toured sites on the St Croix River to share information and discuss management options. Projects completed in the Washington County area can be used as models for addressing similar issues elsewhere in the St. Croix Basin.



Noxious weeds get a lot of attention, particularly newly identified populations of oriental bittersweet and Grecian foxglove in the county. However, landowners who have successfully removed invasive plants in natural plant communities have seen the return of native wildflowers. Plants such as rue anemone, trout lily or even kittentails and showy orchis (pictured at left) have been found when buckthorn has been removed from native woodlands. For more information on habitat restoration, visit our website at [www.mnwcd.org](http://www.mnwcd.org).

### Summer Events

July 14-15

**St. Croix Valley Garden Tour**

10am-4pm. [www.familymeans.org/garden-tour](http://www.familymeans.org/garden-tour)

August 1-5

**Washington County Fair**

Visit us in Building D, near the raingardens!

August 23-September 3

**Minnesota State Fair**

Visit the WaterShed Partners in the Minnesota DNR Building and Blue Thumb – Planting for Clean Water in the Eco Experience

September 8

**Washington County Bluegrass Festival**

Visit us at the Bluegrass Festival in Lake Elmo Regional Park from 3-7pm.

October 13

**Girl Scout Anniversary Day of Service**

Watch for invitations to Girl Scout coordinated community clean-ups in your area.

### ? Conservation Quiz ?



#### What is this?

- A. Groundwater model
- B. Well-tended ant farm
- C. View into a wizard's world

A: Washington County's Public Health Department has used a groundwater model to illustrate how water travels between surface and sub-surface features. Here, Amanda Strommer demonstrates what happens when pollution is introduced into the system.