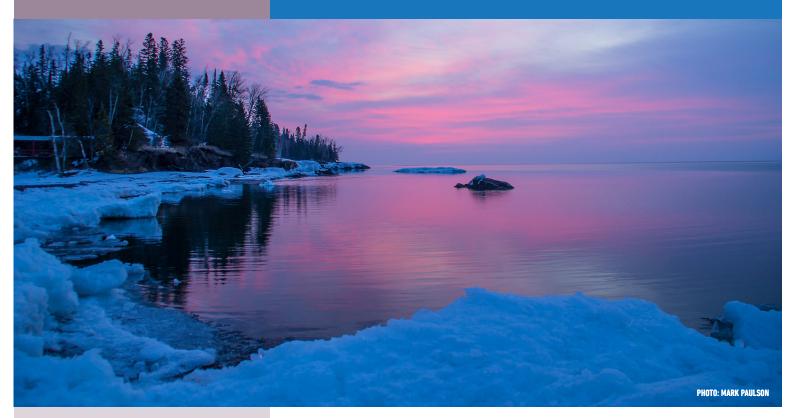
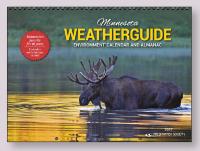
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Facets of FRESHWATER



December 2016

December monthly normals from the Minnesota Weatherguide Environment™ Calendar: **Temperature:** Max 27.1°F Min 12.3°F **Precipitation:** 1.16 in. (Snowfall 11.5 in.)



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She's real fine, my 509

by Steve Woods, executive director



"Well I saved my pennies and I saved my dimes." So begins the first verse of the Beach Boys classic hit "409".

And that was a major aim of the 1982 legislation

which became the Metropolitan Surface Water Management Act (aka Sect. 509 of the Laws of 1982). Plans created under this law were known at the time as 509 plans. A bedrock principle behind the law was "an ounce of planning saves a pound of engineering," as Sen. Gene Merriam phrased it back then. The more formal language of the state declared its intent to "minimize public capital expenditures needed to correct flooding and water quality problems."

Metro area water management is a spectacular success story that illustrates how so much of our urban water systems (waste, drinking, and storm) function below the public's radar. Sewage does not spill into the Mississippi or Minnesota Rivers. We don't even think about drinking the water from St. Paul or Hugo or Eagan or Prior Lake — we only worry about the water when we travel outside the country.

continued on page 2



Freshwater Society is a nonprofit organization dedicated to educating and inspiring people to value, conserve and protect water resources.

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Recalculating

by Steve Woods, executive director

Speculation over how water resources will fare under the next president is in overdrive. Speculation always happens with presidential transitions. POTUS 45's campaign rhetoric about increasing western irrigation supplies, supporting the renewable fuel standards in the Midwest, refuting climate change, and dismantling a number of regulatory efforts including the Waters of the United States (WOTUS) rule has added a turbocharger to water-related speculation.

On the morning of the second Wednesday of November, I was asked what would happen if dismantling actually occurs. The short answer is that state policies provide the backstop. Minnesota has a long tradition of both parties enacting some pretty smart policy to protect our eponymous sky blue waters. In the absence (or reduction) of federal roles they would carry the load. Some might even say wetland regulation would improve given the flexibility and local nature of our Wetland Conservation Act. When driving, my GPS frequently tells me it is "recalculating." The recent election has changed the landscape so the current "Water Governor" will be working with a legislature that is no longer split between the parties. It will be interesting to see how the new dynamic plays out. Here's to hoping a lot of bipartisan attention gets focused on how rural water and wastewater treatment systems provide safe water for communities and how the southern half of the state can grow profitable crops in a way that lightens the load on our waters

The relative balance of power in a two-party system is always in flux, but the need for clean abundant water is a constant. It's a good time to remember that both parties like to catch walleye, drink safe water, and protect their property values. The recommendations of the multiple reports we issued this year remain sound and we will keep working for Minnesota's waters.

509 plans a wonderful success

continued from cover

We're seeing a very real increase in the amount and intensity of summer storms hitting the region and, aside from a few flooded intersections (Fairview Avenue under Highway 36 comes to mind), the news is NOT filled with images of people canoeing down their streets or dragging ruined and moldy possessions to the curb. Yet, this was the trajectory the region was on back in the 1970s as suburban growth exploded out from the central rivers. As the upper watersheds of creeks like Battle. Rice, Coon, Bassett, Nine Mile, Shingle, and Minnehaha paved over the landscape, the downstream communities at the mouth of the funnel were struggling with floods

and gathering other communities to fund a disorganized patchwork of spot fixes.

We've spent time reviewing the trajectory of this 35-year 509 plan policy experiment and have found it has been a wonderful success. Just look curbside after our next four-inches-in-four-hours rainfall, or in the lakes of the metro that have overwhelmingly showed increases in clarity over the past several decades. We've got a great presentation on this history and our findings, locked and loaded. Please give us a call if your group has an interest in seeing what success looks like.

Giddy up, giddy up 509.



MAWD annual meeting

Freshwater Society staff members were busy at the Minnesota Association of Watershed Districts annual meeting, held Dec 1-2 in Alexandria, Minn. Three presentations and a lot of side conversations about how to DO what needs doing in the world of water management was a simultaneously refreshing and tiring way to spend a couple days.

Watershed Districts – special-purpose units of government – make valuable partners because they use data to manage water and tackle problems locally. In 2016, we worked directly with 12 of Minnesota's 45 districts and reached another dozen with our programs, making us a trusted partner to lead these conversations at the annual meeting:

Basic Water Management

Executive Director Steve Woods led this workshop on the leadership role of individuals who work for watershed districts. In a past position at the Minnesota Board of Water Soil Resources, he worked with a team of people to revamp and reenergize training targeted at new managers and staff of watershed districts and this past summer worked with three watershed districts on localized training.

Understanding the Art of Facilitation: Effective Practices for Public Processes

The biggest outpouring of staff know-how took place in this seven-hour workshop, which explored and used techniques for inviting input that leads to action. Peggy Knapp, Leslie Yetka, and Jen Kader are trained in getting people to engage, stay engaged, and play their roles well. Many attendees committed to practicing the techniques in their own work.

Addressing Increased Flows in the Minnesota River Watershed

Given the facts about increased flows and the damages they cause, session attendees were asked, "What organizational changes are needed to build capacity and address the increasing flow?" This packed-to-the-rafters session was half presentation and half discussion, led by Leslie Yetka. Steve, Peggy, Carrie Jennings, and Brian Bohman have been assembling a factual case about increasing flows and widening rivers of the southern part of the state for the Lower Minnesota River Watershed District.

Water is cheap

by Steve Woods, executive director

The final household bills are in for calendar year 2016. It's time to update the cost of utilities table you see at right. This table was originally presented in our December 2015 newsletter and has made its way into several of my presentations. We've added a second column to show how the numbers have changed because they do, due to weather and our friends at the cable and cell phone companies.

Nothing has generated more comments than this table as people first see how little my water bills were, then tabulate their own costs for comparison. The biggest fiscal benefit in our house has been... dropping our land line. But with the household smart meter we received from Shoreview we are driving volumes down even farther.

2014-15 Annual Costs for a Shoreview Home

3-BR, 2.5 occupants, semi-wooded 0.3-acre lot on sandy soils

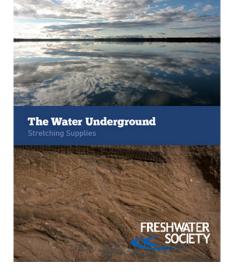
	2015	2016
Property tax	\$4890	\$4610
Cell phone (2-lines)	2470	2520
Homeowner insurance	1320	1171
Electricity	880	831
Natural gas	820	568
Internet	710	818
Landline/long distance	620	0
Garbage/recycle	330	325
Sanitary sewer	280	284
Basic cable	270	252
Water	130	135
City stormwater fee	90	101
Composting service	70	85
Street lighting fee	40	43



New groundwater report focuses on stretching limited supplies

by Carrie Jennings, research and policy director

We are at a crossroads with groundwater use in Minnesota. We are using groundwater faster than it is being replaced. Its scarcity and poor quality affect a city's ability to function normally. There is no one-size-fits-all solution when it comes to groundwater sustainability. A conversation needs to be held in each city across the state because groundwater supply varies with the geology. Where it is in short supply, cities can either slow their use down or will find expensive solutions and compromises forced upon them.



Reducing use of water is the first, simplest step to take. We emphasized this in our first report in this series, *The Water Underground, Reframing the Local Groundwater Picture* and add to those recommendations in part 2, *Stretching Supplies*. In areas with decreasing supply, using water more than once before it is discarded may be required. Although reusing seems like a common-sense approach, our current regulatory framework does not make this an easy option. We make recommendations to streamline the permitting process.

Our apparent wealth of freshwater makes it hard to imagine that we may require recharging of groundwater to reverse declining water levels in aquifers. This option was investigated as early as the 1970s in Minnesota. Other parts of the country and world were doing it long before that. Before we make aquifer recharge a common practice we need to pay more attention to where it happens naturally and enhance that process if possible. In the event that a transfusion of water is needed to sustain a community, we will need to have studied the time-tested approaches to aquifer recharge so that we are prepared to move forward.

Paying attention to the long-term supply of water for Minnesotans and their industries just makes economic sense. It also makes sense to do the easy and inexpensive things first. Why wouldn't we?

Join Freshwater Society now. Get a free Weatherguide Environment Calendar!



Freshwater Society works to protect and conserve freshwater resources so we can count on clean and sustainable drinking water as well as healthy lakes, rivers, and streams. **As this year winds down, please consider a donation to Freshwater Society.**

And if you become a member at any level, we'll send you a free Minnesota Weatherguide Environment Calendar, a Minnesota favorite for 40 years!

DONATE HERE

Upcoming events

Road Salt Symposium Thursday, February 2, 2017 NEW LOCATION! Mounds View Event Center



Learn about solar-powered roads, liability protection, innovations, tools, and practices to reduce salt use while maintaining safe roads. <u>Click here for</u> <u>more information and to register</u>.

Big Island and Back Ski Event

January 28, 2017 Excelsior Docks

This year's event will include ski, snowshoe races and ski/snowboard races. A portion of



proceeds support Freshwater Society. Learn more and register.

Nitrogen: Minnesota's Grand Challenge and Compelling Opportunity February 16, 2017 Verizon Wireless Center, Mankato



Hear about current topics in crop production and environmental stewardship, for today's agricultural producers and professionals. Hosted by University of Minnesota Extension. Learn more.

Save the Date!

Ice Out Loon In Gala Fundraiser April xx, 2017 Nicollet Island Pavilion, Minneapolis