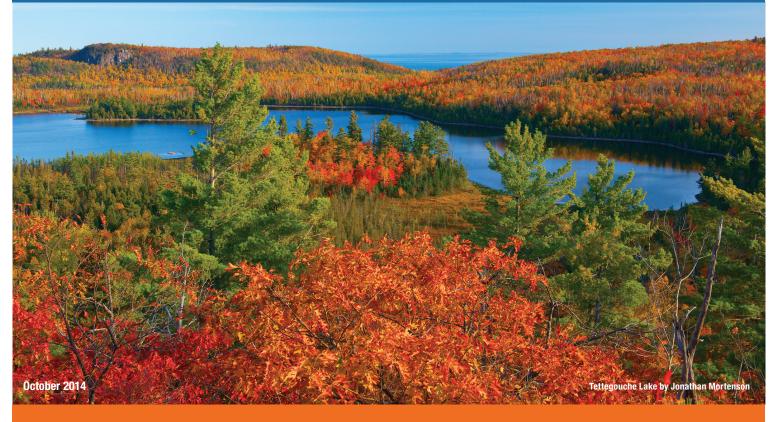
FACETS of Freshwater



Weather Facts and Photo from *MN Weatherguide Environment Calendar* October Monthly Normals: Temp. Max: 58.0 F Min: 39.7 F Precip: 2.43 in.



In This Issue

IntroducingFreshwater Society's New GreenCorps Member2
Jim Gilbert's Work Goes Hollywood2
Moos Lecture: Large crowd attends Famiglietti talk!3
Opportunity for West Central Minnesota Lakes and Rivers3
Upcoming Events3
Treading Lightly on the Earth - Ava and Myrtle's Capstone Project4
Metro Summit for Lake and River Groups4
\$50,000 to the Fairmont Chain of Lakes!4
Join the Society – Get the Weatherguide4

Passing the water baton



Joan Nephew

After 7+ years with the Freshwater Society and 35 additional years in environmental and public health service, I am officially passing the water protection baton.

Although we have been prepping for this moment for over a year, it has only been the last few weeks that I have been able to go through the piles of files that have accumulated during a time of rebuilding and reimagining the Freshwater Society. I have been reminded and awed by the efforts and wisdom of so many people that had the foresight to start the organization — Dick Gray, Dick Caldecott and the many other early leaders. The courage and vision of our Guardianship Council, that helped to shape the current strategic focus

and to our dedicated board and staff supporting and implementing the vision.

During the process of "weeding" the files (i.e. sharing the wisdom) I was struck by the number of partners the Freshwater Society teamed with to "move the ball forward." It reinforced that protecting our waters is indeed an immense team effort. I appreciate and am most grateful to all of those partners, U of Minnesota Water Resources Center, USGS, DNR, BWSR, MDA, MDH, U of MN College of Biological Sciences, members of the Minnesota Environmental Partnership, foundations, companies, watershed districts, League of Women Voters and many other organizations that worked tirelessly to address groundwater sustainability and surface water protection.

I am most amazed however, at the efforts of thousands of volunteers that stepped up to protect their water in their own neighborhoods. 20,000+ Girl Scouts, neighborhood groups, farmer leaders, Master Water Stewards, congregations, service groups and many individual citizens have reached out to thousands of others in raising awareness and demonstrating how big the team needs to be to move the ball down the field.

I began this trip down memory lane with a sports analogy of passing the baton, but as we know, once you connect to water, it never does go away. As I grew up in Fertile, Minnesota (yes, I have heard all of the jokes),

FRESHWATER SOCIETY

The Freshwater Society is a non-profit organization dedicated to educating and inspiring people to value, conserve and protect water resources.

Board of Directors

Stuart E. Grubb, Chair Rick Bateson, Vice Chair Lisa Whalen, Secretary Corrine Ricard, Treasurer Julie Blackburn Todd Bolin, Honorary Director Blyth Berg Brookman Richard S. Caldecott, PhD, Emeritus Director Robert Elde, PhD, Emeritus Director JoEllen L. Hurr, Emeritus Director Barbara Luikens, MD, Emeritus Director Jim Manolis, PhD Lili Tod McMillan Darby Nelson, PhD Tom Skramstad Paige Winebarger

Staff

Deirdre Coleman, Program Coordinator
Julie Fliflet, Director of Finance and
Administration
Alex Gehrig, Program Manager
Darrell Gerber, Research and Policy Director
Peggy Knapp, Director of Programs
Chris Prok, Operations Manager
Jeanne Prok, Program Manager
Laura West, Administrative Assistant

Steve Woods, Executive Director

Scott Branch, Operations Assistant

Facets of Freshwater is published by the Freshwater Society.

For permission to reprint, contact us at: 2500 Shadywood Road, Excelsior, MN 55331, 952-471-9773 or at freshwater@freshwater.org.

Visit the Freshwater Society web site at www.freshwater.org.

Introducing... Freshwater Society's New GreenCorps Member



My name is Lindsey Wyckoff and I am Freshwater Society's GreenCorps member for 2014. I graduated from the University of Minnesota last May with a B.S. in Ecology, Evolution, and Behavior and a minor in Spanish Studies. While in college, I played trombone in the marching band and basketball pep band. In my free time I like to read science fiction, bird watch, and attend concerts and plays around Minneapolis.

Minnesota GreenCorps is an AmeriCorps program that places members in host sites around the state to implement various sustainable practices. The 40 members in 2014 will support programs that encourage use of green transportation, increase recycling and composting, grow food locally, and improve water quality by

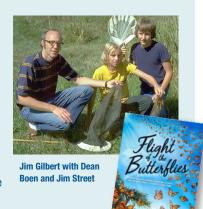
implementing stormwater best management practices.

I will be working alongside Freshwater Society staff on the Master Water Stewards program. This program educates community members on water quality and stormwater issues and gives them the tools to implement BMPs in their own homes. Each Master Water Steward completes classes on stormwater management, volunteers in his/her community, and completes a final project by installing a BMP and educating others in the community. My role this year will be to support Master Water Stewards as they move through the program. I will also become a certified Master Water Steward. Last year's GreenCorps member, Lauren Sampedro, did a great job working with the Freshwater Society on this program. I look forward to continuing this work, learning what I can do to decrease stormwater runoff, and encouraging others to help protect Minnesota's water resources.

Jim Gilbert's Work Goes Hollywood

On the morning of September 6, 1975, Jim Gilbert, MN Weatherguide Calendar contributor and then Hopkins School District naturalist, met two of his students at the University of Minnesota Landscape Arboretum prairie-restoration site near Chaska. The students were seventh grader Dean Boen and ninth grader Jim Street, both of Hopkins. They tagged about one hundred butterflies that morning, unaware that the one wearing the tag PS 397 would soon make history – and become the "star" of an IMAX movie.

Flight of the Butterflies is showing through January 8, 2015 at the Science Museum of Minnesota.



Passing the water baton (con't from pg 1)

I had the Sand Hill river as my backyard playground. Mom was outnumbered by 5 kids in 7 years. As much as she tried to keep track of us and repeatedly urged us to "stay away from the river," that was precisely the place that attracted adventurous kids. I learned about the chub, crayfish and darts that lived there and watched the sand shift on the river bottom thru the crystal clear water. Of course this all took place upstream from the city's sanitary sewer outlet. I was introduced to water pollution at a very young age as well! And, just as many of us in this field, I have a lifelong connection to lakes, rivers and streams and the memories and emotions they rekindle. I have never lived far from water and am thoroughly enjoying these beautiful autumn days on the Mississippi River where I have lived for 20+ years.

Thanks for the opportunity to be part of the wonderful work of this large community of partners, leaders, dedicated professionals and citizens reclaiming our waters and ensuring their enjoyment for all. I'm excited about the new leadership at the Freshwater Society and the continued focus on collaboration to accomplish our collective goals of restoration and protection of our water resources.

Sincerely,

Joan Nephew

Moos Lecture: Large crowd attends Famiglietti talk!

"Groundwater in most of the world's major aquifers... is being rapidly depleted, likely never to be replaced."



Dr. Jay Famiglietti

It was in light of this dire observation that Dr. Famiglietti, a world leading researcher in remote sensing, gave a September 18 lecture entitled "Dwindling Groundwater Reserves as Viewed from Space"

as part of the Moos Family lecture series.

Dr. Famiglietti, of the NASA Jet Propulsion laboratory and University of California, Irvine, has received worldwide attention. The ongoing severe drought in California has had billions of dollars of cumulative economic impact and has increased interest in his work.

If you missed Dr. Famiglietti's lecture you can view it on **archived video**. The lecture attracted over 190 attendees including students and faculty from the University of Minnesota, the University of Wisconsin-River Falls, Hamline University, and Macalester College.

At less than 500 miles long and over 40 miles wide, the Central Valley in California produces over 250 different crops or 8% of the food in the US including almost all of the world's supply of almonds and pistachios. The drought in the region has led to a rush to drill wells after some agricultural areas lost all access to surface water for irrigation...a trend Dr. Famiglietti says will lead to rapid reductions in groundwater.

Dr. Famiglietti's research has been able to precisely track the monthly fluctuation of groundwater in the regions across the world using satellites that act like "scales" in orbit. His team is able to make highly accurate monthly measurements of gravitational forces attributable to groundwater.

Some of the key points from the lecture:

 California was one of many states and countries with little to no regulation on the use of groundwater. This is changing with new groundwater management legislation recently signed by Governor Jerry Brown, but it will likely do little to help during the current drought.

- The Upper Midwest is not as bad off as California and other parts of the world. It lies in a band across the upper latitudes with higher water storage. He predicts less chance of groundwater scarcity issues but does indicate a higher risk of flooding.
- We can make progress facing world, regional and local groundwater scarcity challenges but, as a community, we need to elevate critical water issues to the level of everyday understanding.



Dr. Patrick Brezonik, Julie Ekman, Dave Peters, Dr. Jay Famiglietti and Dr. Thomas Hays, Interim Dean, CBS, U of MN

Dr. Famiglietti was joined by a panel of three Minnesota experts: Dr. Patrick Brezonik, Professor Emeritus in the Department of Civil, Environmental, and Geo-Engineering at the University of Minnesota and former Director of the University's Water Resources Center; Julie Ekman, section manager for Conservation Assistance and Regulation in the MN Department of Natural Resources' Division of Ecological and Water Resources; and Dave Peters, director of the Minnesota Public Radio News project "Beneath the Surface," an examination of the growing awareness of water availability challenges in Minnesota.

This event was graciously sponsored by:

Biological Sciences
UNIVERSITY OF MINNESOTA
Driven to Discover*





January 20, 2015, 7pm - University of MN, St. Paul Student Center

Our next Moos Speaker series lecture will be a provocative and timely look at the causes of sediment pollution in the Minnesota River and what can be done about it.

"Sediment, science, and stakeholders – clearing the muddy waters of the Minnesota River"

By Dr. Peter Wilcock, Dept. Head Watershed Sciences, Utah State University

Stay tuned for the time and location of a special double header on January 21.



Opportunity for West Central Minnesota Lakes and Rivers

The Healthy Lakes and Rivers Partnership is looking for a few good lake or river associations in the Ottertail area - 8 to be exact. Working with the Initiative Foundation, the Freshwater Society received a grant through the Environment and Natural Resources Trust Fund (often known as the Lottery Funds) to hold a round of this unique program in West Central Minnesota. Groups that are selected will participate in a comprehensive training on lake management planning that includes everything from reading lake data to nonprofit planning. Participants are also eligible to receive up to \$5,000 each in grant awards from the West Central Initiative for implementing a priority action for their local lake or river. Contact the Freshwater Society and visit our webpage for more information.

UPCOMING EVENTS

OCTOBER 14-15: Water Resources
Conference, U of MN Water Resources,
St. Paul River Centre

OCTOBER 20-22: Upper Midwest Invasive Species Conference, Duluth Entertainment and Convention Center

OCTOBER 21: Master Water Steward information session, MCWD, Minnetonka

NOVEMBER 5: Metro Summit for Lake and River Groups, St. Louis Park Rec Center

NOVEMBER 10: Winter Parking Lot and Sidewalk Maint. MPCA Certification, Cascade Meadow Wetlands and Env Science Center, Rochester

NOVEMBER 12: Minnesota Ground Water Association Fall Conference, U of MN, St. Paul

NOVEMBER 19: Minnesota Aquatic Invasive Research and Management Showcase, U of MN, St. Paul

Treading Lightly on the Earth



Ava and Myrtle's Capstone Project



Myrtle and Ava

St. Luke Presbyterian Church is treading lightly. Master Water Stewards Ava McKnight and Myrtle Turnquist have been leading the installation of two raingardens in an impressive capstone project. Master Water Stewards are community volunteer leaders who are trained and certified to work with neighbors to reduce urban runoff and keep local lakes and rivers clean. Every Steward is required to do a capstone project as part of their certification process. Each capstone is comprised of an installed stormwater management project, and an education and outreach campaign.

Myrtle and Ava worked with St. Luke's Presbyterian Church in Wayzata to decrease the amount of stormwater

that runs off the church's 60,000 square feet of hard surface. This project is a multi-year project with plans of installing six basins to capture water, parking lot retrofit to reduce hard surfaces, and the addition of trees.

The church's commitment to sustainability has led to St. Luke being chosen to be part of a new film, *Climate Reality*. The film shares 12 different stories from around the world. St. Luke's was the only story chosen from the U.S. to be featured in the film. A film crew came to the church at the end of August to shoot a **video**.



Volunteers helped Ava and Myrtle plant over 1100 plants to create two new rain gardens.

If you are interested in being a Master Water Steward, apply **here** or attend an informational session on October 21, 6:30-7:30 pm at Minnehaha Creek Watershed District: 15320 Minnetonka Blvd, Minnetonka.

A Partnership of



Sponsored by





Metro Summit for Lake and River Groups

November 5, 5:15-8:30 pm, St. Louis Park Rec Center

Join us at this fall's summit for a great chance to network with other groups from throughout the metro area, hear the latest on funding developments to fight aquatic invasive species, as well as some great ideas for increasing your group's ability to reach out and get more done. Visit our **website** for more information, or contact Alex: agehrig@freshwater.org or 651-357-7486.



triplepundit.com

\$50,000 to the Fairmont Chain of Lakes!



Fairmont Chain of Lakes

The Michelob Golden Light *Celebrate Your Lake* contest that ran through the summer and ended on September 30 has a winner...with over 150,000 votes cast between the 30 contestant lakes, the Fairmont Chain of Lakes came out on top.

The Fairmont area got a bit of a late start and wasn't in the top five for the first few weeks of the contest, but they managed to come from behind and show Minnesota how much they love their lakes! Stay tuned for updates on Fairmont and how they decide to put the conservation award to work.

A shout out to the runners-up who made a fantastic efforts on behalf of their lakes: *2nd place* - Lake Minnewaska, *3rd place* - Big Lake, *4th place* - Lake Zumbro and *5th place* - Lake Washington.

Clean Water starts The control of th

Help the Master Water Stewards Program Expand

The Freshwater Society is developing an online alternative for the certification classes in the MWS Academy. These online classes would provide a rigorous online alternative for Stewards' certification process, reduce barriers to participation in the program, appeal to a wider variety of learning styles, and allow much greater flexibility in program delivery.

We need your support. **Donate now** to support the Freshwater Society and the Master Water Stewards program.

Join the Society – Get the Weatherguide!

Become a member or renew your Freshwater Society membership and you'll receive the 2015 Minnesota Weatherguide Environment Calendar.

Support the protection of freshwater resources and you'll enjoy amazing regional photos, Nature Notes by Jim Gilbert, weather history, meteorological information, gardening tips and much more. **Become a member!**

Attention photographers! Submissions are now open for the 2016 MN Weatherguide Calendar. Send us your favorite MN nature shots! Guidelines and submission information are on our website.

