



### Quick Links

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### Upcoming Meetings:

- **Thurs., July 16th—Golf Tournament at Oak Marsh Golf Course in Oakdale, MN**
- **Wed., August 12th—Post Banquet**

### Frequently Used Links:

- National website at [www.same.org](http://www.same.org)
- Post website at [www.same-msp.org](http://www.same-msp.org)
- Listing of [Post Leaders](#)
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Next Meeting Presentation  
**Thursday, June 25th, 2015**

## Are you wild about wild rice?

Come learn what the MPCA is doing to help protect the state grain.

Ed Swain  
MN Pollution Control Agency

1-PDH

### Presentation Synopsis:

The presentation will include the research behind a recently-released MPCA proposal to protect wild rice from excess sulfate. Minnesota adopted a wild rice sulfate standard in 1973 of 10 milligrams per liter, but recent questions have prompted a review of that standard and additional research into the effects of sulfate on wild rice. The Minnesota legislature funded a 1.5 million dollar study, which the MPCA conducted from 2011 to 2014. The research investigated the conversion of relatively harmless sulfate into potentially toxic hydrogen sulfide by bacteria in the sediment in which wild rice is rooted. The MPCA study found that more sulfide is produced when bacteria have more organic carbon available as a food source--but that the sulfide can be detoxified by precipitation with iron in iron-rich sediments. The MPCA proposes to replace the 10 milligram per liter standard with an equation that calculates how much sulfate would be tolerable in a given wild rice water based on the concentrations of iron and organic carbon in the sediment of each wild rice water.

### Speaker Bio:

Ed Swain has been a research scientist at the Minnesota Pollution Control Agency for 25 years, and for 15 years has been an adjunct professor in the Dept. of Fisheries, Wildlife, and Conservation Biology at the University of Minnesota. For most of the 25 years he studied mercury contamination of Minnesota's lakes, streams, and wetlands. But four years ago he switched to the question of why wild rice seems associated with low sulfate waters.

### Meeting Location:

**LOCATION CHANGE:** SEH Training Room, 3535 Vadnais Center Dr., St. Paul, MN 55110

### Agenda:

Social time and lunch (if you so desire) will be from 11:30 AM to 12:30 PM. An assortment of catered box lunches will be available for purchase. \$15 includes a boxed lunch with a beverage. Presentation will be from 12:30 PM to about 2:00 PM in the SEH Training Room.

Please RSVP **no later than Monday, June 22nd** with your intent to either partake in the boxed lunch or to come for the presentation only; this will help to ensure that an adequate amount of food is prepared. Either leave a message with Michelle Larson at **651-290-5632**, click the RSVP button in the left-hand column of page 1, or send an email to [Michelle.J.Larson@usace.army.mil](mailto:Michelle.J.Larson@usace.army.mil) Please also advise if you have any specific dietary concerns with your RSVP.

## Highlights of the Previous Meeting



During the May joint SAME and ASFPM meeting, Nathan Campeau, of Barr Engineering, provided an overview of Minimal Impact Design Standards (MIDS). He commented on how sustainability becomes a core of our mission as we protect Minnesota's water resources. As designers and regulators, we need to understand MIDS and work on implementing technologies that will help reduce the percentage of impaired water bodies in our region. In 2009, the Minnesota legislature passed MIDS as agency performance design standards and tools. The direction of MIDS is to "mimic natural hydrology" by controlling rates and runoff volumes. MIDS is made up of 4 components: 1) Statewide storm water volume performance goals, 2) MIDS Calculator to quantify credit 3. Design specifications for LIDS and 4) a MIDS ordinance package model.

Nathan described an intensive P8 and XPSWMM modeling effort Barr undertook using 35 years of continuous model simulations, analyzed percent impervious area, and the amount of runoff that would need to be retained to mimic a natural hydrologic condition.

This analysis resulted in volumes of model output which was analyzed and refined into simple and easy-to-understand guidance for storm runoff as follows:

- 1) Retain runoff volume of 1.1" of runoff from new and or fully reconstructed impervious surface.
- 2) Retain post-construction runoff volume on the site for the 95% storm
- 3) Match native runoff volumes for 1yr-24hr and 2yr-24 hr design storms Infiltration doesn't always work. For these conditions, there are some flexible treatment options outlined in MIDS as well.

Here is the website where you can find the MIDS documentation and tools: [http://stormwater.pca.state.mn.us/index.php/Overview\\_of\\_Minimal\\_Impact\\_Design\\_Standards\\_\(MIDS\)](http://stormwater.pca.state.mn.us/index.php/Overview_of_Minimal_Impact_Design_Standards_(MIDS))

### **The MIDS website includes:**

- 1) A Design Sequence Flow Chart that can guide you through the decisions and conditions that guide the project design.
- 2) MIDS Calculator that is an excel based tool where you can evaluate if a project meets the goals of MIDS by volume or Total Phosphorous reduction. Using the output from P8 and XPSWMM modeling, Ind 100's of years of modeling simulations, a series of relationships were derived to assess the annual volume reductions achieved by different BMPs for different soil characteristics. The calculator requires the project size, % imperviousness, soil type, precipitation (zip code) and storm water BMP (or multiple BMPs) as input. The calculator provides a summary of anticipated BMP performance in volume reduction and pollutant removal. Click here to access the calculator information: [http://stormwater.pca.state.mn.us/index.php/MIDS\\_calculator](http://stormwater.pca.state.mn.us/index.php/MIDS_calculator)
- 3) A model MIDS ordinance package is provided on the site. MIDS is not required by the state yet, but instead is a voluntary adoption. The ordinance package helps communities and watershed kick-start their adoption of MIDS.

## Register Now for the 30th Annual SAME Golf Tournament!

Attention all golfers...sign up NOW for the 30th Annual Education and Mentoring Fund Golf Tournament. The event will be held on Thursday, July 16th at Oak Marsh Golf Course in Oakdale. As was done last year, the registration for the event will be done online. Please use the following website to register to golf or become a sponsor for the event: [http://www.wpgolf.com/oakmarsh/same\\_fundraiser.aspx](http://www.wpgolf.com/oakmarsh/same_fundraiser.aspx)

As an alternative to the online registration format, interested golfers and sponsors can register and pay by calling Oak Marsh directly at 651-730-8886. Registration must be completed no later than Friday, July 10. If you register by June 25th, you will be entered into a special drawing for a Fitbit® and local gift cards.

Individuals, twosomes, threesomes and foursomes are welcome! Groups less than foursomes will be paired up with other golfers. Non-golfers are welcome to join us for dinner and socializing; cost for dinner only is \$25. Additional donations to the Education and Mentoring Fund are greatly appreciated!

If you have questions about the event, please contact Tim Thoreen at 651-659-7777. Also watch your inbox for an email with additional event information!

**Don't miss out on all the fun – the photo to the right was taken at the 2014 event!**



**SOCIETY OF  
AMERICAN  
MILITARY  
ENGINEERS  
MINNEAPOLIS-  
SAINT PAUL POST**

c/o US Army Corps of Engineers  
St. Paul District  
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## Save the Date!

### Mark the Date for the Annual Post Dinner and Recognition Event

The 5th Annual Minneapolis-Saint Paul Post Awards and Recognition Banquet will be held on Wednesday, August 12th at the Como Zoo and Conservatory's Bullard Rainforest Auditorium at the Visitor Center (same location as last year). The time frame will be 6:00 PM to about 9:00 PM. An event flyer will be sent out in July with additional details and registration information.



### Elmwood Schools Education Grant

On May 22nd, 2015, Disa Wahlstrand presented Kristel Fleberg, science teacher, Dan Soules, math teacher, and Mr. Soules' Geometry Class a grant check of \$1,278.00 to purchase 10 graphing calculators for use at Elmwood Schools. We look forward to seeing how they put them to use in the next school year!



### Farnsworth Middle School Education Grant



On May 14, 2015, Chris Erickson presented David Barret, Farnsworth Aerospace Middle School, Saint Paul, MN a check for \$2,720.00 as part of the SAME Educational Grant Program. This school will use the funding to purchase the NXT Intelligent Brick or simply "Lego Robot Brains" to support their Lego Robotics Program for approximately 280 Middle School Students.

### Rosemount Elementary Education Grant



Jon Gustafson, representing SAME, presented a STEM education grant to Ms. Angela Sterry and her 5th grade class for the purchase of 11 Chrome Books to promote increased access to technology to research problems and engineer solutions based on the science units taught throughout the year.

[www.same-msp.org](http://www.same-msp.org)