

Wisconsin Section Southwest Branch (<http://ascewisw.org/>)

**TUESDAY, JANUARY 24, 2012**

**Presentation Topic:**

**PHOSPHORUS AND THE WATERSHED  
ADAPTIVE MANAGEMENT OPTION**

**David Taylor, Director of Special Projects, and  
Michael Mucha, Chief Engineer and Director,  
Madison Metropolitan Sewerage District**

The Wisconsin Department of Natural Resources (WDNR or the department) has developed numeric water quality criteria for phosphorus. These criteria were used as the basis for developing a total maximum daily load (TMDL) for phosphorus in the Rock River Basin. In most cases, point sources and MS4s will be required to reduce phosphorus loads to comply with the TMDL. Nonpoint sources will also be required to reduce phosphorus loads to comply with the TMDL.

Chapter NR 217 of the Wisconsin Administrative Code identifies the implementation framework for establishing effluent standards and limitations for phosphorus in effluent discharged to surface waters of the state. NR 217 includes an innovative implementation strategy referred to as the "watershed adaptive management option" as a means of complying with water quality criterion.

Adaptive management may represent a cost effective option for point sources, MS4

communities, and others to meet phosphorus load reductions required in the Rock River TMDL. Madison Metropolitan Sewerage District (MMSD), along with other partners, will conduct an adaptive management pilot project in the Yahara Watershed. Information gained in the pilot will be used by the participants to determine whether pursuing a full scale adaptive management project in the Yahara Watershed makes sense.

David Taylor, Director of Special Projects at the Madison Metropolitan Sewerage District will provide an update on MMSD's effort to develop and implement the adaptive management pilot project.



**Time:** 11:30 am Social  
12:00 pm Lunch  
12:15 pm Presentation

**Lunch Menu:** Sandwich Buffet, Coffee, Soda, or Water

**Cost:** Professionals/Faculty - \$13  
Students - free

**Location:** The Great Dane - Fitchburg  
2980 Cahill Main (Off Fish Hatchery Road)  
Fitchburg, WI 53711

**RSVP:** Please RSVP by 5 PM, Monday, January 16, 2012 to Dan Schrum at [Daniel.Schrum@hdrinc.com](mailto:Daniel.Schrum@hdrinc.com) or respond via the Evite email invitation.

**Directions:**  
From Highway 12/18, head south on Fish Hatchery Road, and turn right on Cahill Main.

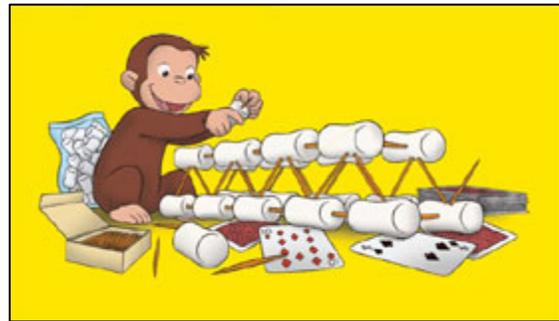
**NOTE:** If a walk-in guest does not purchase your meal, you will be invoiced. Send a substitute guest if you have a last minute conflict.

Mark your calendars for the January ASCE Southwest  
Branch Meeting:  
11:30 am Tuesday, January 24  
Sign up NOW - RSVP date is January 16!

### President's Message

Happy New Year! I hope you had a wonderful holiday season, and I hope you had the opportunity to play. Play? Yes, play! If you were lucky enough to enjoy the company of young children over the past few weeks, I hope you were able to spend some time playing with them – and their new toys. At my house, I'm not sure who enjoys playing with my sons' new train set more, them, or my husband and I! We build elaborate track configurations with overpasses and underpasses that ultimately get destroyed in an instant as my two-year-old toddles through the track jungle. Even though my children still think an engineer is someone who drives a train (thanks Thomas!), I can't help but think of all the opportunities we have in daily life to share the wonder and excitement of engineering with the younger generation.

So this being the New Year, with its associated resolutions, I'd like to challenge each and every one of you to add "Engineering Outreach" to your list. After all, how many of you can say you wouldn't have fun building a bridge out of toothpicks and marshmallows, a rocket-powered ski lift from a balloon and string, or a leaning tower of Pisa with pennies and a Jell-O foundation! I'll also add that this might be the easiest resolution of all to keep because ASCE has done all the work for you!



Start exploring what ASCE has to offer at their [K-12 Outreach](#) page. Here you will find links to outreach ideas and resources for all ages, some of which I'll highlight below:

#### [ASCEville](#)

This site targets kids in grades 4 – 7 and is filled with engaging graphics, interactive activities, and compelling stories of inspiring, young engineers. The [Just for Fun](#) link has a variety of games, activities, videos and more! I think my kids and I will be making the [Gumdrop Dome](#) out of leftover gingerbread house candy – which activity or game will you try? Visit the [Resources](#) link for even more ideas!

#### [Curious George – Let's Build!](#)

Who better to bring civil engineering to preK – 1<sup>st</sup> graders than that mischievous little monkey, Curious George! Can you [build a tree for a pigeon](#) out of random stuff in your house?

#### [ZOOM into Engineering](#)

ZOOM encourages kids, grades K-5, to make engineering connections in their daily lives and helps them understand how these exciting activities apply to the work of civil engineers. Why not make your next kid's (grandkid's, niece's, nephew's, etc.) birthday party a [ZOOM Party!](#)

#### [Design Squad](#)

Activities for grades 9-12 are based on the first interactive television series that introduces engineering design principles. How would you design a cake that moves? Check this [link](#) to see over 400 ideas!

#### [Engineer Your Life](#)

Looking to share civil engineering with a young woman in your life? Engineer Your Life is an online resource for high school girls, which blends the fun and excitement of exploring engineering with the goal of attracting more females to engineering careers. Take the [Engineer's Pledge](#) and change the way you talk about engineering!



If you're like me, clicking on just a few of these links will give you more ideas than you will know what to do with. Pick one. Do one activity with your family, your child's school, the school in your neighborhood, or anywhere you'd like and start sharing the gift of engineering with the next generation. Please share your experiences with us through our [Facebook page](#) with a photo and description.

Currently, the Southwest Branch has a vacancy in the Outreach Committee Chair position. If you would be interested in helping the Branch organize outreach activities or just being a resource for members interested in volunteering, we want to [hear from you](#). Until that position is filled, please [email me](#) if you have any outreach ideas or would like to take advantage of some of the [resources](#) available from ASCE.

With so many options and fun activities to share, you should have no problem keeping this New Year's resolution!

Theresa Possley Nelson, PE  
ASCE WI Southwest Branch President 2011-2012

---

### Younger Member Update

Our December Ugly Christmas Sweater Bar Crawl was a success! Holiday cheer was shared and ugly sweaters admired all night long – this is sure to become an annual event! Thanks to Meredith Claeys and Amanda Stone for helping to organize it!

The Younger Member Committee will be meeting this month to discuss activities for the next several months – please email [Theresa](#) if you're interested in being on the committee.

---

### THANK YOU!

Thanks to all the members who volunteered for the UW-Madison Mentor Night. I noticed conversations lasting well beyond the 1-hour timeframe. The enthusiasm for this event is a testament to the dedication of our members to supporting our next generation of civil engineers!

The ASCE Southwest Branch would also like to take the time to express our profound gratitude to the donors of the 2011 ASCE Southwest Branch Scholarships. Because of their generosity and charitable contributions to our fund, we were able to provide five \$800 scholarships to deserving civil engineering students from UW-Madison and UW-Platteville.

The ASCE Southwest Branch thanks you very much for your contribution to our scholarship fund and we hope we can count on your continued support!

**Visionary** (\$500+): W.F. Baird & Associates Ltd.

**Sustainer** (\$250 to \$499): Strand Associates, Inc.; Mead and Hunt; Leggette, Brashears & Graham, Inc.; Soils and Engineering Services

**Patron** (\$150 to \$249): SRI Design Inc.; CGC, Inc.; Wagner Komurka Geotechnical Group; GRAEF

**Sponsor** (\$1 to \$149): --



### **Nominations Sought for Historic Civil Engineering Landmark**

The History and Heritage Committee is asking for your assistance in nominating a Historic Civil Engineering Landmark as part of the Wisconsin Section's upcoming 80<sup>th</sup> Anniversary Celebration in 2013. In general, to be designated by ASCE as a Historic Civil Engineering Landmark the following criteria must be met:

- The nominated project must be of national historic civil engineering significance. Size or technical complexity of design or construction is not sufficient in itself.
- The project must represent a significant facet of civil engineering history, but does not have to be designed or constructed by a civil engineer.
- Projects must have some special uniqueness; or have made some significant contribution; or utilized a unique or significant construction or engineering technique. The project itself must have contributed to the development of the nation or at least a very large region.
- Projects should be generally available to the public view, although safety considerations or geographic isolation may restrict access.
- Nominated projects should be at least 50 years old from the substantial completion at the time an ASCE plaque presentation is desired.

Please submit nominations to Kathy Thunes, chair of the History and Heritage Committee at [kthunes@eastcentralrpc.org](mailto:kthunes@eastcentralrpc.org) by January 31, 2012. When submitting a nomination, please include your contact information. If you have any questions, please contact Kathy at the above email.