

Newsletter No. 128 March 31<sup>st</sup>, 2016

## President's Message



Dear ASCE Northwest Branch Members:

First of all, thank you all for the opportunity to serve as this year's Northwest Branch President. I'm honored to accept the challenge and fill the shoes of the hard working leaders of our past. Being a board member for the last few years has allowed me the chance to connect with great people who share the same enthusiasm for the profession in which we work. We have an exceptional board this year whom are all clearly excited and motivated to do great things for the Branch and advance the mission of ASCE. I feel very strongly that ASCE offers excellent opportunities for its members and in continuing the stewardship of the Civil Engineering profession. A little bit about me: I graduated in 2005 from Purdue University in Civil Engineering. I am employed with J.F. Brennan

Company, a La Crosse, WI based contractor who specializes in heavy civil and marine projects, environmental remediation, and barge transportation. My wife, Betsy, and I live in La Crosse with our daughter Julia and son Charlie.

As I began writing my first edition of the newsletter. I felt it necessary to discuss why we belong to ASCE. After all, everyone who receives (and hopefully reads) this newsletter is making a commitment to the profession that goes beyond what's required of us in our day-to-day careers. ASCE certainly has its membership perks, which includes such things as various discounted insurance policies, banking and credit rewards, discounted goods and services from computer purchases to car rentals and shipping, opportunities to earn PDH's, and the list goes on. The financial incentives may offset the cost of membership but in addition to our membership's fee, ASCE requires something more: part of our time. Our time is limited and must certainly always be focused effectively. I firmly believe the time spent participating in ASCE is incredibly worthwhile. Globally, ASCE is the voice of more than 155,000 passionate and dedicated civil engineers in 172 countries. Within the Northwest Branch, over 250 members who are spread across a large geographic region of the state participate in national, regional, and local events to promote the civil engineering profession. Interaction with colleagues to promote collaboration and innovation within the profession allows each of us to grow within our own careers. Identifying and creating awareness to important infrastructure issues within governmental institutions will ensure our infrastructure needs are addressed. These are all critically important functions of an ASCE member, which most certainly requires a focus of our time. However, in my mind there is one thing that we do that which is perhaps the most important: creating interest in our profession among youth, interaction with youth groups, schools, and our own young member programs and fostering an interest in science, technology, engineering, and math.

I encourage each of you to take the time to impart the knowledge that you've acquired throughout your formal education and career and ask how you can change the life of a young learner. ASCE offers many ways to do this. Our board is more than willing and well equipped to assist in any way; all it takes is part of your time. Please contact one of us if you have availability.

Sincerely,

Mike Binsfeld

Northwest Branch President mikebinsfeld@jfbrennan.com

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## **UPCOMING EVENTS**

Check your emails from the Northwest Branch for all upcoming conferences, construction site visits, socials, outreach programs, and volunteer opportunities. The board is working diligently on lining up a great season of ASCE events!

### **Creativity Expo 2016**

The Northwest Branch is sponsoring the Creativity Expo for the Destination Imagination initiative. Wisconsin Destination Imagination (WI DI) is a non-profit, volunteer-led, cause-driven organization. The purpose is to inspire and equip students to become the next generation of innovators and leaders. Annually, WI DI offers seven new standards-based challenges in science, technology, engineering, math, improvisation, visual arts, service learning, and early learning. Each challenge enables student teams to learn and experience the creative process from imagination to innovation while also learning 21st Century skills for the future. http://www.wisconsindi.org/. If you can volunteer, please let us know!!!



**WHO:** Anyone! The Creativity Expo is open to Destination Imagination participants and to the public. The Creativity Expo is free of charge for all.

**WHEN:** Saturday, April 16<sup>th</sup> from 10AM to 3PM.

**WHERE:** University of Wisconsin, Stevens Point- 2050 4thAve. 54481Health Enhancement Center Building, Quandt Fieldhouse

**WHY:** Wisconsin Destination Imagination is dedicated to providing learning opportunities in cience, Technology, Engineering, Math, creativity, innovation, communication and more for all Wisconsin life-long learners. The Creativity Expo is a gathering of a diverse group of STEM-based groups and organizations that share in this mission to bring STEM learning to students and their families while having fun.

For more information on the event please visit here: CREATVITY EXPO 2016

# **PAST EVENTS**

## Engineers Week Events February 21st - 27th

Each year, Engineers Week is observed by more than 70 engineering, education, and cultural societies, and more than 50 corporations and government agencies. The purpose of National Engineers Week is to call attention to the contributions to society that engineers make. It is also a time for engineers to emphasize the importance of learning math, science, and technical skills. The Northwest Branch focuses events each to celebrate the profession: <a href="http://www.discovere.org/our-programs/engineers-week">http://www.discovere.org/our-programs/engineers-week</a>

### STEM EDUCATION - Exploration for Boys at UW - Stevens Point



On November 20, 2015 Dan Borchardt and Glen Speich from MSA Professional Services and Andy Walters form American Engineering and Testing (AET) assisted UW –Stevens Point in their STEM Exploration Day for Boys by providing hands on exhibits and presentations that explain STEM careers. The ASCE American Society of Civil Engineering donated all the supplies for the event as part of the ASCE Northwest Branch. Approximately 270 boys from over 15 school districts and 22 schools were in attendance at the event.





The event took place in the UW-Stevens Point Dreyfus University Laird room before splitting out into presentation classrooms where hands on activities were performed with the kids from grades 6-8. During the morning exhibit we worked with kids explaining the difference between concrete and asphalt and simulated the batch plant process by making asphalt and concrete cookies. During the 3 presentations throughout the day we explained the different engineering careers, how they all fit together, talked about the design process and proceeded to challenge them to build a skyscraper with limited supplies and time. UW Steven's Point heard a lot of great feedback from our presentations was very happy and thankful for our efforts at the event and want us to return at the February STEM exploration Day for girls.

### Check out some more photos from the event here:

https://uwspimages.smugmug.com/Events/STEM-for-Boys-November-2015/n-ChKrPj/

## STEM EDUCATION – Exploration Day for Girls at UW - Stevens Point

On behalf of the ASCE Northwest Branch, Abby Bernhagen of MSA Professional Services, Joe Behlen with the Wisconsin Department of Natural Resources, and Andy Walters of American Engineering Testing, recently assisted UW–Stevens Point with its STEM Exploration Day for Girls. Volunteers provided handson exhibits and presentations that explain STEM careers.

Approximately 370 girls from 30 schools attended the event that began in the UW-Stevens Point Dreyfus University Laird Room with various expo booths for the girls to explore. Then participants split into presentation classrooms where hands-on activities were performed with youth from grades 6-8.



Bernhagen and Walters worked with the girls in the morning session to explain the process of making asphalt. The students simulated the batch plant process by making asphalt cookies, made of crushed-up Oreos, crushed graham crackers, crushed Reese's Pieces, ground up oatmeal flakes, and melted chocolate chips, each of which represented ingredients to make asphalt.

Later in the day, the girls learned about various STEM topics from presenters in one-hour workshops. Bernhagen, Behlen, and Walters provided a workshop to discuss Civil Engineering and make a paper skyscraper. The goal was to create the tallest "Skyscraper" possible that could support the load of a golf ball.

The girls had the opportunity to complete a task with limited resources and time, similar to what engineers often face when planning and constructing their projects. During the three "Skyscraper Challenge" workshop sessions, we explained the different engineering careers and how they all fit together.



Thank you to all the volunteers and board members for taking the initiative and promoting the STEM fields of study!

For more information on the event, please visit the UWSP website: <a href="http://www.uwsp.edu/conted/ConfWrkShp/Pages/STEM/Girls.aspx">http://www.uwsp.edu/conted/ConfWrkShp/Pages/STEM/Girls.aspx</a>

## **Region 3 Assembly**

Marissa Wildeck - Director at Large

Marissa Wildeck, one of our newest at large board members attended the ASCE Regions 3, 6, and 7 annual assembly. This year it was held at the Fairmont Hotel in Chicago on January 15th and 16th. The conference included the Workshop for Section and Branch Leaders (WSBL), the Central Region Younger Member Council (CRYMC), and the Workshop for Student Chapter Leaders (WSCL). Marissa gave the following comments on the conference:

"The conference included information on ASCE organization information, emotional and intellectual intelligence, communication style identification and tips, and meeting the President-Elect and candidates for the upcoming year. I met section and branch leaders from other regions, Younger Member representatives, governors, and student members. One of the region governors also mentioned free web development support and tips that are provided by ASCE. Lastly, member involvement and recognition was a big topic during the conference. The STAY and SPAG grants were mentioned for supporting college chapters, branches, and section member involvement. The idea of increasing inter-section activities to increase involvement was a popular idea for areas that are having low member involvement. Early college chapter involvement to inform members of the benefits after graduation was a big emphasis as well to increase member transition percentage. I'm grateful for the opportunity to have attended the Assembly as one of your Branch representatives."

Thank you Marissa for representing our branch at the conference and your continued efforts on the board!

### **SWEF Site Tour**

Superior, WI

On March 17<sup>th</sup>, the Northwest Branch hosted a site tour of the newly constructed Safety Weight and Enforcement Center (SWEF) in Superior, WI. A group of 26 engineers attend a presentation at the DOT office in Superior by Jessica Felix, WisDOT Northwest Region Deputy Director and Northwest Branch Director at Large.





After the presentation, the group drove to the SWEF facility, located 6 miles east of Superior on State Highway 53. The project, which is the first of several new SWEF facilities on this side of the state, enhances the speed by which traffic is weighed and monitored. A demonstration of Vehicle in Motion checks were given to the group by the State Highway Patrolmen charged with operating the facility. The facility is designed to safely monitor both north and southbound traffic. A two-bay garage was also toured

which allows the officers the ability to provide a more thorough inspection of a vehicle. The facility is outfitted with the latest surveillance and measurement equipment to provide many years of serviceability for the state's highway system.



Thank you to Jessica Felix for putting the event together and to all the state highway patrolmen who provided the great on site tour.

## **OTHER NEWS**

## 2016 Harvey Goodell Scholarship Offering

The Northwest Branch annually awards one \$1,000 scholarship to a civil engineering student who lives within the boundaries of the Northwest Branch. This scholarship is to recognize the unselfish contributions to the civil engineering profession that were made by Mr. Harvey Goodell. Mr. Goodell provided leadership to the Branch for many years, having been a La Crosse area director from 1976-1984. ASCE most notably recognizes him for his efforts in initiating and promoting the "Eminent Board" concept, which proposed methods for allowing private sector input in public engineering works. The hope of the Northwest Branch is that by awarding this scholarship, the spirit and enthusiasm shown by Mr. Goodell will be perpetuated.

Applications are due by the end of April. Please contact Mike Binsfeld (mikebinsfeld@jfbrennan.com) for more information.

# **Northwest Wisconsin Civil Engineering Highlight**

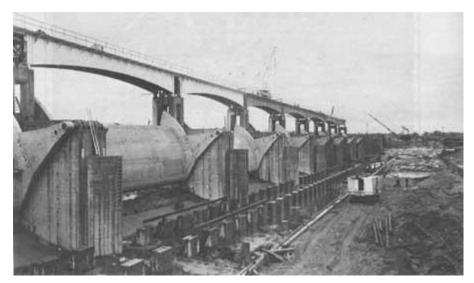
# Upper Mississippi River Lock and Dam System

Located on the sunny west coast of Wisconsin, the Northwest branch has a unique geographic location that encompasses many great monuments to civil engineering. In this edition, we briefly highlight the Upper Mississippi River lock and dam system:

When Franklin Roosevelt took office in 1933, more than 10 million Americans were unemployed and many of those who continued to work earned only half of the wages they enjoyed only four years earlier. Over the next eight years, the Roosevelt Administration poured hundreds of millions of dollars into public works projects across the country.

The scramble to secure a piece of Roosevelt's New Deal was furious, luckily the proponents of the lock and

dam project managed to get in line early. In 1933, the federal government committed more than \$30 million to the Upper Mississippi, the first in a series of investments that would total more than \$164 million by the time the project was complete. In 1940, the last of the lock and dam systems was finished, and the Upper Mississippi River had finally been tamed as a commercial highway

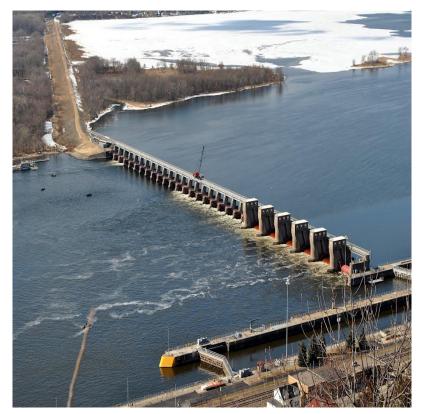


Through the early years, traffic on the river grew slowly. Agricultural production in the region had been somewhat limited by the Roosevelt Administration in an effort to bolster prices, so grain was initially a minor portion river traffic. The Second World War boosted river commerce as raw material, oil and coal were shipped to industrial centers, but even then, river commerce did not experience the economic boom that its early boosters had predicted.

Beginning in the 1950s, post-war global economic development and changing US trade policies began to increase the demand for American grain. At the same time, the productivity of Midwestern farms was steadily increasing as better technology and improved varieties of corn, soybeans, and wheat became available to the region's farmers. By 1970, grain, which had been a negligible commodity on the river, accounted for nearly 1/3 of the ever-increasing volume of river traffic. Total grain shipments in 1970 amounted to approximately 18 million tons, nearly three times the total river traffic in 1940.

As traffic on the river increased, The Corps of Engineers began to make adjustments to the existing lock and dam system. Of the many several modifications made between 1948 and 1960, the most significant was the construction of a new, 1200-foot lock at Keokuck, Iowa. Prior to its completion in 1957, the longest locks on the river were 600 feet. The need for infrastructure improvements on the lock systems continues through today.

Today, more than 580 facilities ship and receive commodities within the Project. Grains (corn and soybeans) dominate traffic; cement and concrete products are the second largest group. A modern 15-barge tow transports the equivalent of 1,050 semi-trucks (26,250 tons, 937,387 bushels of corn, or 240 rail cars). Annually, the 9-foot project generates an estimated \$1 billion of transportation cost savings compared to its approximately \$115 million operation and maintenance costs.



#### Sources:

Institute for Water Resources. 2011. Waterborne Commerce of the United States, Part 2–Waterways and Harbors Gulf Coast, Mississippi River System and Antilles. U.S. Army Corps of Engineers, IWR-WCUS-11-2

Center for Global Environmental Education. Hamline University Graduate School of Education Online. Website: http://cgee.hamline.edu/rivers/resources/voices/transportation3.htm . 1536 Hewitt Avenue, St. Paul, MN 55104-1284

## Renew your ASCE Membership for 2016!

Please check to make sure your ASCE membership hasn't been put on the back burner. Hopefully this list has provided more than one memory of how ASCE membership has provided value to your engineering career and personal life. Please feel free to share your experience with a co-worker or friend. Online, in person, and wherever your membership takes you, ASCE benefits every Civil Engineer. See the ways you benefit from your ASCE membership at asce.org/101.

Keep your benefits and renew today!



And remember not only what ASCE provides for you...

- Professional Development = Northwest Branch directors will be organizing meetings that help us explore the variety of influence civil engineers have while the Section Annual Meeting and Spring Technical Conference provide additional learning environments
- Networking = meetings and conferences bring together knowledgeable engineers that could provide assistance to your next civil engineering hurdle
- Personal savings = discount car insurance, rental car savings for the next family vacation, bank resources
- Good Citizenship = ASCE can provide the environment to teach others ways to make this country stronger through improvements to our environment

...but how you can leverage your education and engineering experience to change the life of a potential aspiring engineer through ASCE outreach and STEM education opportunities?

# **UPDATE ASCE ONLINE PROFILE REGULARLY**

Please update your ASCE online profile with current E-mail and mailing addresses to guarantee you receive ASCE newsletters and important information. As a reminder, those of you that have passed your PE exam, make sure to change your account with ASCE National. To update your ASCE profile, go to <a href="https://www.asce.org">www.asce.org</a> or call (800) 548-272.

## 2016 Calendar of Events

The calendar is simply a guide and may change throughout the year

### **JANUARY 2016:**

- Northwest Branch Board Meeting
- > January 10-11, 2014 Regions 3, 6, & 7 Workshop for Section and Branch Leaders (WSBL) Chicago

### **FEBRUARY:**

- Northwest Branch Board Meeting
- > STEM outreach February 26th UW Stevens Point
- February 16-22, 2014 -- National Engineers Week

#### MARCH:

- Northwest Branch Board Meeting
- March 18<sup>th</sup> Northwest Branch Site Tour Superior SWEF
- March 24th ASCE Wisconsin Section Annual Spring Technical Conference

#### APRIL:

- Northwest Branch Board Meeting
- ➤ April 16<sup>th</sup> Creativity Expo See Upcoming events
- > April 15<sup>th</sup> PE, PS, and SE Vertical Exam (offered in Madison, Milwaukee and Platteville)
- ➤ April 16<sup>th</sup> SE Lateral Exam (offered in Madison, Milwaukee and Platteville)
- > April 30th Goodell Scholarship Applications due

### MAY:

Northwest Branch Board Meeting

### JUNE:

- Northwest Branch Board Meeting
- Spring Valley/Eau Galle Dam Tour and Family Cookout Tentatively Scheduled for June 11th

#### JULY:

Northwest Branch Board Meeting

### **CURRENT NORTHWEST BRANCH OFFICERS**

President: Mike Binsfeld, J.F. Brennan Company: La Crosse, WI; mikebinsfeld@jfbrennan.com President-Elect: Kris Roppe, I&S Group, Inc.: La Crosse; kris.roppe@is-grp.com

**Secretary-Treasurer:** Andy Walters, American Engineering Testing, Inc., Wausau, WI; awalters@amengtest.com

Past President: Wisconsin Section Northwest Branch Representative: Teresa Davis – WisDOT Northwest Region; Eau Claire (715) 836-7277

#### Northwest Branch Directors-At-Large:

Jessica Felix, WisDOT Northwest Region: Eau Claire; (715) 836-5170; felix.jessica@att.net Evan Berglund, Krech Ojard & Associates, Inc.; Eau Claire: (715) 553-7374 Marissa Wildeck, I&S Group, Inc.: La Crosse; (608) 789-2034

#### **Newsletter Editors:**

Mike Binsfeld & Teresa Davis

