



**The Pittsburgh Professional Engineer**  
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February 2011

## **PRESIDENT'S MESSAGE**

Greetings everyone! Commander Richard Timme of the U.S. Coast Guard gave a great presentation at the Pittsburgh Chapter's November meeting. The Commander helped oversee the clean-up response to the Deep Water Horizon oil spill in the Gulf of Mexico. The presentation was very informative, and those present gained a clear perspective of what was really going on with the clean-up effort as opposed to the incomplete reports provided by the standard news media. The Commander stated that he was overall pleased with the clean-up effort.

One thing that the Pittsburgh Chapter, PSPE does is promote engineering to middle-school and high-school students. It is very important to encourage engineering among students to ensure that we have new generations of engineers in the workforce. In collaboration with the Allegheny Intermediate Unit, the Pittsburgh Chapter conducts the Apprenticeship Program. The program gives opportunities to high-school juniors and seniors to visit local engineering companies where they learn more about engineering directly from practicing engineers. Would your company be interested in hosting a small group of students for a half-day so that you can share your expertise with them? If so, please contact the Pittsburgh Chapter, PSPE! Many of the Chapter newsletters include a brief report from one of the students about a recent visit to a local engineering firm.

The Pittsburgh Chapter is also gearing up for the annual Mathcounts event that will be held on Saturday, February 19. Mathcounts is a math competition for middle-school students. I remember competing in Mathcounts once when I was in middle-school. It really is a fun event for the students. The event is fun for adults as well - especially during the Countdown round where one sees just how bright the students are as they quickly solve math questions. I now enjoy being at Mathcounts as a grader each year.

The next Chapter dinner meeting will be on March 10, 2011. It will include a presentation about the North Park Lake Army Corps of Engineers Restoration Project. The meeting will count as 1 PDH towards the Pennsylvania Continuing Education Licensing requirements.

Remember to let me or the PSPE Board know if you have any suggestions about possible future meetings or site tours. I can be reached at 412-880-5322. We look forward to seeing you at a meeting!

Joseph Garlicki, P.E., President

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# MATHCOUNTS®

## MATHCOUNTS FOR 2011

### Fourth Year at RMU

This will be the fourth year that our Mathcounts competition has been held at the Moon Campus of Robert Morris University. Through the volunteer help and financial help of this school of higher learning, our program has continued to be successful and continued to grow. This year, our 28<sup>th</sup> year of hosting the Mathcounts competition, there are 24 schools each with a team of 4 students, and an additional 89 individual students from these schools. This is a grand total of 185 students participating this year at our Mathcounts competition.

Our competition this year is on **Saturday, February 19<sup>th</sup>** at the Sewall Center at RMU.

If you have not yet signed up to volunteer for this exciting event, please email Tom Schwartzmier at [toms@consolidated.net](mailto:toms@consolidated.net).

As with many of our volunteer activities, our State funding was not approved in the most recent Pennsylvania budget. If you are interested in providing financial support for this wonderful activity, please email Virginia Dailey at [dailey@ddengr.com](mailto:dailey@ddengr.com).

## CELEBRATE NATIONAL ENGINEERS' WEEK



Collectively, America's engineers contribute more than one million hours annually to public service. National Engineers Week Foundation coalition members, with the support of engineering firms and agencies, represent a significant segment of this volunteer force. This year, to help celebrate the 60th anniversary of Engineers Week, the Foundation is giving special recognition to engineer volunteers!

*Come join the Pittsburgh Chapter in celebration at the National Engineers' Week Banquet, as we try out a new venue, the River Room of the Sheraton Station Square with a gorgeous view of the downtown Pittsburgh Skyline. We have managed to keep the cost of the dinner the same as the last few years, and the Sheraton is even providing a "free" glass of wine with your dinner.*



### 2010-2011 Chapter Officers

President – Joe Garlicki, P.E.	Executive Secretary – Jon Drosendahl, P.E.
President Elect – Brian Schull, P.E.	Treasurer - John Broscious, P.E.
Vice President – Kirk Thompson, P.E.	Financial Secretary - Reyman Branting, P.E.
State Director - David Briskey, P.E. 2008-2011	Immediate Past President – Dave Samek, P.E.

### 2010-2011 Chapter Directors

Virginia Dailey, P.E. 2009 - 2011	Tom Weber, P.E. 2011 - 2013
Doug Beitko, P.E., 2010 - 2012	



**PENNSYLVANIA SOCIETY OF PROFESSIONAL ENGINEERS  
PITTSBURGH CHAPTER**

**Invites ALL Engineers and their guests to the Annual  
NATIONAL ENGINEERS' WEEK BANQUET**

**On Saturday, February 26, 2011**

At The Sheraton Station Square  
300 West Station Square Drive  
Pittsburgh, PA 15219

Please join us for a wonderful evening of fellowship, great food  
and the presentation of the 2011 Engineers' Week Awards

H'oeuvres and Cocktails: 6:30 p.m. (Cash bar)  
Welcome & Presentation of Mathcounts Awards: 7:00pm  
Dinner: 7:30 pm  
Presentation of Awards: 8:30pm

You may make your reservation by filling in the form below and mailing or faxing it to the Chapter office. You may also phone in all of this information to us. If you opt to make your reservation via e-mail, do not e-mail your credit card info. Payment may be made by calling in your credit card info, faxing this filled in form, or mailing this form with credit card info or enclosing a check. **Cost of Dinner is \$60.00/person if reservations are made by February 21, 2011.** After that, the cost is \$65.00/person.

Office Phone number (412) 391-0615 e-mail: t.devlin@eswp.com  
Office fax (412-261-1606) Mailing Address: PSPE, 337 Fourth Avenue, Pittsburgh PA 15222

Dinner Choice : Choose one of the following:

**Dinner includes a glass of house wine and chocolate layer cake for dessert**

- Chicken Picatta**, with lemon butter, white wine and caper sauce
- Tilapia**, with lemon butter sauce
- London Broil**, with mushroom sherry sauce

Name : \_\_\_\_\_ Dinner Choice: \_\_\_\_\_

Name : \_\_\_\_\_ Dinner Choice: \_\_\_\_\_

Payment Options:

MASTERCARD     VISA     AMEX     Check Enclosed  
Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_ CVV Code \_\_\_\_\_

Name (as it appears on the credit card): \_\_\_\_\_

Billing Address: \_\_\_\_\_

Check enclosed payable to Pittsburgh Chapter PSPE & mailed to 337 Fourth Ave., Pittsburgh, PA 15222

Phone Number: \_\_\_\_\_ E-Mail: \_\_\_\_\_

*Cancellations must be received three (3) days prior to the event.*

# MARCH CHAPTER MEETING NORTH PARK LAKE AQUATIC ECOSYSTEM RESTORATION PROJECT

USACE – Pittsburgh District

(Meeting will count as 1 PDH for Continuing Education Requirements in Pennsylvania)



**US Army Corps  
of Engineers**®  
Pittsburgh District



**Status:** Phase I sediment removal ongoing.  
35,000 cubic yards of sediment removed as of 7/23/10  
Site preparation work completed.  
Wildwood Disposal Site near completion.

**Project Completion:** Work in the lake to be completed and lake allowed to refill in May 2011.

**Website:** [http://www.lrp.usace.army.mil/pm/north\\_park.htm](http://www.lrp.usace.army.mil/pm/north_park.htm)

North Park - located in Hampton, McCandless and Pine Townships, Allegheny County, Pennsylvania – was created by [Allegheny County](#) in the 1920's. The signature piece of this 3,010 acre county park is its lake.

North Park Lake is a man-made lake at the confluence of Pine Creek and the North Fork of Pine Creek. When first constructed in 1935, the surface area of North Park Lake was approximately 75 acres and its depth was approximately 24 feet near the dam face. At that time, the watershed surrounding North Park Lake generally consisted of rural agricultural fields, pastures and isolated woodlots.

At the request of the project's local sponsor, the County of Allegheny, the Corps of Engineers initiated this project in 1999 and the Preliminary Restoration Plan was completed and approved in August 2001. Extensive testing and measurement of the amount of sediment in the lake was conducted and documented in the [Sediment Characterization Report](#), published in January 2003 as part of the feasibility process.

In January 2008 the [Final Detailed Project Report](#) was approved. The following will be completed under sec 206 authority:

- dredge 104,000 cubic yards of sediments from 33 acres of the North Fork Arm of the lake
- enhance existing emergent wetlands and create new wetlands<
- create aquatic habitat structure within the lake to increase cover for benthic organisms and fish
- construction of two osprey nesting platforms

# **PITTSBURGH CHAPTER APPRENTICESHIP PROGRAM CONTINUES ITS YEAR WITH GREAT MEETINGS**

Wednesday, December 8 2010  
AECOM Visit

By: Eric Myers

On Wednesday, December 8<sup>th</sup>, 2010, Group 2 of the engineering apprenticeship visited the company AECOM, one of the leading engineering firms in the United States. AECOM (Architecture, Engineering, Construction, Operations, and Management) is a global provider of professional technical and management support services to a variety of fields including transportation, facilities, environmental, energy, water and government. The company employees approximately 52,000 people worldwide and the Pittsburgh office is just one of its many international branches. Located in 4 Gateway Center on Liberty Avenue, the Pittsburgh offices have worked on many important engineering projects locally, including its most recent and noteworthy design work on the light rail tunnel under the Allegheny River.

In our trip to AECOM, we were introduced to various engineers working within the company. We first met Keith Sala, who is the Chief Deputy Officer at AECOM. Keith was able to give us a birds-eye view of the construction of one of the terminals for the new light rail project, located just outside of their building. We also met with Karen Mueser, EIT, who directed the activities and presentations during our stay. Karen gave us an overview of the type of work the engineers deal



*A look inside Pittsburgh's North Shore Connector Tunnel. This one of AECOM Pittsburgh's largest and notable projects to date.*

with at AECOM and explained her background and the experience that lead her to her specific work. Karen graduated from the University of Pittsburgh with a Bachelor's degree of Science in Engineering. The next presenter of the visit was Lauren Terpak, an Environmental engineer who is part of the "Water Group" at AECOM. Lauren discussed the fundamentals of environmental engineering and briefly touched on some of the work on which the Pittsburgh branch specifically focuses.

According to her, wastewater and wet weather systems are the areas of primary focus at the company. Next, Jim McKay, a Traffic engineer explained his line of work in regards to transportation and infrastructure.

One of his main responsibilities is performing various safety studies to improve the security and efficiency of roads, bridges, and other facets of transportation. The last presenters were Josh England, Matthew Castiglia, and Bill Confair, presenting on behalf of the "Structures Group" at AECOM. They were able to explain the basic tenets of structural engineering and were able to share with us actual materials used in construction, such as steel and concrete.

In the last portion of the visit, we engaged in a bridge building competition that involved constructing bridges out of hot glue and Popsicle sticks. After construction, each teams' bridge was tested by placing 5 lb. bricks atop the structure. The winning bridge was able to withstand a total of 25 lbs.

Overall, Group 2's trip to AECOM was a successful one. Each student was able to establish valuable relationships with the engineers and acquire invaluable insight into potential career options. The engineers at AECOM were extremely helpful and enthusiastic about participating in this event and many thanks are deserved for their continued efforts in this worthwhile program.

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(Return Service Requested)



Pittsburgh Chapter, PSPE– <http://www.PittsburghPE.Org>

## 2010-2011 CALENDAR

### MEMBERSHIP EVENTS & MEETINGS

Date	Time	Description	Location
February 10, 2011	5:30pm	Board of Directors Meeting	ESWP
<b>February 19, 2011</b>	<b>8:00am</b>	<b>MATHCOUNTS</b>	<b>RMU/Sewall Center</b>
<b>February 26, 2011</b>	<b>6:30PM</b>	<b>National Engineers' Week Banquet</b>	<b>Sheraton Station Square</b>
March 10, 2011	5:30pm	Board of Directors Meeting	ESWP
March 10, 2011	6:30pm	North Park Lake Project	ESWP
April 14, 2011	5:30pm	Board of Directors Meeting	ESWP
May 12, 2011	5:30pm	Board of Directors Meeting	ESWP
June 9, 2011	5:30pm	Board of Directors Meeting	ESWP

All BOD meeting are to held @ 5:30PM @ the ESWP Building pending further notice.