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Upcoming Meetings:

- **Wed, December 17th**
- **Wed, January 28th**
- **Wed, February 25th**

Frequently Used Links:

- National website at www.same.org
- Post website at www.same-msp.org
- Listing of [Post Leaders](#)
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Next Meeting Presentation

Wednesday, 19 November 2014

US Military Support in Overseas Operations

James Sellner

Principal Engineer at MN DNR Division of Lands and Minerals in Hibbing MN
Commander at U.S. Navy Reserve

1-PDH

Presentation Synopsis:

The Mosul Dam is the largest dam in Iraq and the fourth largest dam in the Middle East by reserve capacity. Located on the Tigris River, the dam is also built upon unstable ground and is considered an extreme danger. The November meeting will dive into the history, geology, stabilization, engineering, and socioeconomic issues related to the Mosul Dam as well as addressing health and safety of US troops and the public of Iraq.

Speaker Bio:

Commander Jim Sellner was recalled to active duty in 2006-2007 and served as the Deputy Director for Oil Reconstruction Sector in Iraq. This involved everything from acidifying oil wells to the refurbishment of the Al Basra Oil Terminal in the Persian Gulf. He served as Deputy Program Manager for a \$1.7 Billion construction program including 1300 military, government, and contract personnel in refurbishing and equipment procurement to bring Iraq's oil production to pre-war levels. He also served as lead engineer on the stabilization of the Mosul Dam.

In his civilian life, Jim is a principal engineer for the MN DNR Division of Lands & Minerals in Hibbing, MN. He leads a staff of engineers, geologists, and engineering technicians in performing professional Mining/Geological Engineering work involving Minnesota State-owned lands & minerals. He conducts feasibility studies of the technical, economic, and environmental merits of mine development plans & proposal. He also serves as the chief inspection engineer as well as head project engineer for all geotechnical projects including tailings dams and pit slope stability. His expertise in the preparation of environmental Assessment Worksheets (EAW) and Environmental Impact Statements (EIS).

Jim has a BS in Mining Engineering from the U of MN Institute of Technology and a MS in Geological Engineering from the University of Minnesota. He is a registered Professional Engineer and a Professional Geologist in the State of Minnesota.

[See page 5 for Logistical Information for this Meeting](#)

Winners of the Drawing for a Free Lunch

At the October Meeting — **Garret Blomstrand**, US Army Corps of Engineers
Omid Mohseni, Barr Engineering

At the June Meeting — **Paul Dierking**, HDR
Paul Senne, RESPEC

At the May Meeting — **Terry Zien**, US Army Corps of Engineers
Nicholas Croveti, MN Air National Guard

Highlights of the Previous Meeting

During the October SAME meeting, Judy DesHarnais, PE, the St Paul District Army Corps of Engineers Deputy District Engineer for Programs and Project Management, gave a presentation on the Water Resources Reform and Development Act of 2014 (WRRDA 2014). The prior Water Resources Development Act was signed in 2007.



WRRDA 2014 authorizes projects and programs for the US Army Corps of Engineers, but does not appropriate funds. Judy stressed that the Corps does not get to choose how to execute any parts of the law. Guidance is specifically given to carry out each part of WRRDA. WRRDA 2014 authorizes 42 projects: 34 projects for new construction & 8 project modifications. Approximately 24% (10 of 42) of authorized/modified projects, and 62% of authorized Federal funding outlays (\$9.1B/\$14.6B) fall within the Mississippi Valley Division.

Within the St Paul District, the new law authorizes:

- the Fargo, N.D., Moorhead, Minn., flood risk reduction project;
- the completion of the Roseau, Minn., flood risk reduction project;
- an environmental restoration project at Marsh Lake, near Ortonville, Minn.;
- the closure of Upper St. Anthony Falls Lock and Dam within one year; and
- other policy issues that affect our Nations Water Resource Development

Judy noted that new for WRRDA 2014, input is being accepted by USACE Headquarters on how guidance is developed on WRRDA provisions by sending an email to wrrda.usace.army.mil. You can check the following web page to view the programs and projects in WRRDA 2014. <http://www.usace.army.mil/Missions/CivilWorks/ProjectPlanning/legislativelinks.aspx>. This is also where guidance will be posted when available.

The projects called for in WRRDA 2014 will follow the 3x3x3 SMART planning guidance: Completed in 3 years, for less than 3 million dollars and include 3 levels of vertical teaming allowing for project alignment and encouraging early coordination. Additionally, she addressed the closure of Upper Saint Anthony Falls Dam. The dam will be closed to navigation, but may still be operated for flood control. The dam will not be abandoned, but won't have the same presence. Based on the guidance, the NEPA process is starting. The dam will be closed by June 15. Judy added that the primary reason for closure was due to the invasive carp issues.

Thank you Judy for presenting this all important topic!

Engineers and Technical Professionals Need to Help with Future City Competition



This will be the 13th year that teams from Minnesota have participated in the national Future Cities Competition and will be the 7th year that the SAME M-SP Post will be sponsoring a special award category for the team that best addresses "Readiness for Natural and Man-made Disasters".

Volunteers willing to help any of the following capacities are very much needed ...

The M-SP Post needs the assistance of four volunteers on the morning of Saturday January 17, 2015 to help select the team to receive our special award. If you are willing to help with this portion of the event, please contact M-SP Post Junior Vice President **Peter Allen** at peter.j.allen@urs.com.

The organizers of the state competition are looking for engineers and technical professionals who are interested in being either a Mentor to a specific school team or a judge in one of the three judged events as described below. Mentors help students and educators better understand the practical applications of math and science as they work with students in the design of a future city. 5.0 PDHs of community service are awarded to all mentors whose teams complete the competition and are printed on the mentor's certificate of appreciation. Engineers in all fields are welcome. Just as cities need all types of engineers, so do our students. For complete details about mentoring see <http://www.futurecity.org/region/mentoring>. Volunteers are needed to help judge the various portions of this season's National Engineers Week Future City Competition (FCC). Volunteer judges are needed during the months of December and January. For complete details see <http://www.futurecity.org/region/volunteer-judge>.

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Ramsey County Procurement Fair, October 29th, 2014

Ramsey County conducted their first Small Business Enterprise (SBE) Procurement Fair. The County now has their own procurement division, no longer a part of the City of Saint Paul. Dana Baker, the Procurement Manager, led the discussion for introduction of the new department and a chance to meet the procurement team. Tips were presented on the use of Onvia Demandstar for getting on the bidders list for upcoming work as well as their procurement rules on solicitations and dollar values. For example, the County can sole source work for less than \$25,000. In addition, Ramsey County can piggyback on Hennepin County's program for qualified vendors (currently Hennepin County is going through a Pre-Qualification process for consulting services). Both Ramsey County and Hennepin County are actively promoting the SBE program.

Tisidra Jones, Vendor Outreach Coordinator for the City of Saint Paul presented on the Central Certification (CERT) Program, the local small business program for City of Saint Paul, Ramsey County and Hennepin County. She stressed the importance of being certified and to remember to renew and update the certification. For those small businesses already certified, she suggested periodically looking at your company profile to verify the right contact information and company services are included so as not to miss renewal notices or searches on services based on key words.

Karyn Berg, Job Connect Manager, Ramsey County Workforce Solutions discussed possibilities to find employees for services or construction through their websites at www.JobConnectMN.com

The fair also included a chance to meet representatives from each Ramsey County department as well as other small business resource providers, such as MN PTAC, Small Business Association, SCORE, and many others. Ramsey County plans to host a small business fair annually.

McGuire Middle School Education Grant 2014: Roller Coaster Experiment

McGuire Middle School 6TH grade science teachers, Mrs. Alesia Arlandson and Mr. Rich Heilman, submitted a SAME education grant application to purchase supplies (to accommodate 320 students) for a physics experiment where students design and build a roller coaster and to examine performance using principles of physics. The roller coaster lab was implemented during a year-end science lab last May.



- **Goal:** Students learned about energy transformation and basic forms of energy: kinetic, potential, thermal. They applied their gained knowledge of energy by designing the fastest, most thrilling roller coaster ride with at least one loop and one 90 degree curve for the least cost.
- **Planning/Design:** Groups of 4 designed their roller coaster on paper, labeling where the top 3 kinetic and gravitational potential energies were exhibited along the roller coaster design. The groups were given a pretend \$100,000 budget to buy track, tape (nuts and bolts), marble (passenger car), stopwatch, table permit (to stand on the science tables to build the higher portions of the RC), and any safety inspections and fines. Every material had it's own cost. Groups had to keep track of their spending to ensure they were staying within the budget.
- **Construction:** Groups had two days to build their RC to perfection. They tested their roller coaster along the way as they built to make sure the right amount of energies was created throughout the whole ride. When the RC was fully built, groups recorded the speed of the marble that ran the track. Distance of track and time in seconds were recorded in order to calculate speed of the ride.
- **Documentation:** Groups discussed and wrote how they knew where the greatest kinetic and gravitational potential energies were, how they knew the Law of Conservation of Energy was in action, how staying within a budget affected their design, and what they would do differently with no limit to budget. The projects were built on student iPads and used in class presentations.
- **Demonstration:** State and regional AVID representatives and surrounding school districts' administrators and teachers observed the MMS science class roller coaster experiments. They were looking for use of AVID WICOR strategies (best practice strategies in Writing, Inquiry, Collaborating, Organizing, and Reading). They found the lesson very engaging and aligned with WICOR strategies. MMS is going for AVID Demonstration Status, which is similar to Blue Ribbon School of Excellence in high school. The goal is for the entire building to use AVID best practice strategies for the benefit of students. The roller coaster experiments helped to reinforce scientific principles, and also helped demonstrate how MMS was implementing WICOR strategies to support the AVID Demonstration Status in the school.

McGuire Middle School, located in Lakeville, MN, was very appreciative of the education grant funds that were provided through MSP Post SAME. In addition to the grant, SAME mentors stayed in touch with Mrs. Arlandson during the year, and provided engineering journals and magazines as a classroom resource. Mrs. Arlandson was happy to have engineering magazines/journals in the classroom, and was looking forward to using the journals to teach reading strategies, specifically scientific literacy.

Elmwood Grant Check Presentation — Great Lakes & Ohio Valley Regional Conference



On May 28th, 2014, Disa Wahlstrand presented Elmwood Schools with the SAME Grant Check. Pictured on the left (L to R): Kristel Flesberg, (cience teacher and education grand contact, and Disa Wahlstrand.

The Kentuckiana Post will be hosting the Great Lakes & Ohio Valley Regional Conference November 19-21, 2014. This year's theme is Bridges to the Future. For Conference and Exhibit Registration, Conference Agenda, and Local Attracitons, please visit [JETS 2014](#).



2014 SAME-MSP Awards Banquet

The Fourth Annual Minneapolis-Saint Paul Post Awards and Recognition Banquet held on August 13th, 2014 was another great success. Approximately 40 people were in attendance. The banquet consisted of recognition of outstanding SAME members, an update from the St. Thomas University SAME Student Post, and a presentation from both a camp attendee and camp mentor.



Pictured to the left are the incoming post leaders (L to R): Tom Crump, Tosin Agboola, Bonnie Greenleaf, Disa Wahlstrand, Jon Gustafson, Peter Allen, Rachel Pichelmann, Wayne Wambold, and Chris Erickson.

Pictured to the right: The new 2014-15 Post President Chris Erickson addresses the audience at the 2014 Awards Banquet.



Logistical Information for Upcoming Luncheon Meeting

Meeting Location:

Fort Snelling Officer's Club at 395 Minnesota 5, St Paul, MN 55111
See map at http://www.same-msp.org/_images/934thOfficersClub.jpg

Agenda:

Social time and lunch (if you so desire) will be from 11:30 AM to 12:30 PM in the dining room of the Officers Club. Post Meeting and Presentation will be from 12:30 PM to about 2:00 PM in the

The Club's cafeteria-style lunches are typically \$10.00 or less; people who partake in the cafeteria-style lunch will pay the Officers Club directly. If you come only for the presentations, there is no charge. Please RSVP with your intent to either partake in the cafeteria-style lunch or to come for the presentation only; this will help the Officers Club staff 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

Engineers and Technical Professionals Need to Help with Future City Competition (Continued from Page 2)

The competition is comprised of three judged parts:

- Computer design & layout using SimCity software
- A 700-1000 word essay on an assigned engineering-related topic
- Building a table top scale model of a section of the city and a team oral presentation of their city and model

If you are interested in helping with any aspect of the state competition, send your contact info (name, company, work phone, work address, and email) to **Colleen Feller** at colleen.feller@metroecsu.org or phone, **612-638-1511**.

Would you like to be on the newsletter distribution list?

The Minneapolis-St. Paul Post of the Society of American Military Engineers (SAME) send a monthly newsletter out via e-mail to inform all members of the activities the SAME-MSP Post has been involved with, as well as documenting past meetings, and providing information on future meetings. If you have not been receiving the monthly newsletter announcements, please e-mail Ann Banitt at ann.m.banitt@usace.army.mil, and she will be sure to add you to the distribution list.



www.same-msp.org