

MGM National Harbor Resort & Casino

Mr. Daniel Hanlon, P.E., Senior Program Director, McKissack & McKissack

On May 19, 2015, at the National Capital Section (NCS) meeting, Daniel Hanlon, P.E. provided an overview on the construction and design of the MGM National Harbor, a destination gaming resort under construction in southern Prince George's County, MD. Upon completion, the \$925 million resort will include a 300-room luxury hotel, a casino featuring 3,600 slots and 140 table games, a 1,200-seat theater, high-end retail, 35,000 square feet of meeting space, and premier restaurants. MGM was awarded a license to operate the casino in December 2013.

Daniel Hanlon, P.E., from the McKissack & McKissack project management team discussed some of the key elements to managing the complex, fast-tracked project to NCS meeting attendees. First, he provided a site overview and described the site's design, from the fountain to clean sweeping roof of the casino, to how the hotel tower pays tribute to the National Mall. Mr. Hanlon then described in detail the exterior and interior design elements, including the



floor plan and elevation views. He also described how the proposed finishes take suggestions from nautical references such as ships, sails, and tides, and showed attendees several examples.

Next, Mr. Hanlon discussed the project management and technical engineering aspects of the project, from foundation considerations to roof design; as well as mechanical, electrical, and plumbing elements of the 3,000,000 square foot facility. Mr. Hanlon noted that when working with numerous specialized consultants and contractors working simultaneously, communication is critical to ensuring all the pieces come together efficiently and eliminate surprises. The use of building information modeling, construction of full-scale models, and ongoing constructability reviews has been key to the team's success. The project is on schedule for completion by

October 31, 2016. The meeting concluded with an audience question and answer session.

For more information on the MGM National Harbor project, please visit www.mgmnationalharbor.com.

About the Presenter: Daniel Hanlon, P.E., has more than 40 years' experience in facility management and administration and management of engineering design, construction and operations for complex facilities and infrastructure with particular emphasis on project and program management, strategic and budgetary planning and organizational operations. Prior to joining McKissack & McKissack, he served as Director of Capital Programs and Construction Management for American University, managing a capital construction budget of \$450 million. ■



President's Corner

Since our Annual Awards Banquet in March, the NCS has been very busy indeed. We hosted Section meetings on NASA climate change adaptation and the MGM Casino's \$925M National Harbor construction. We held multiple meetings and speaker events through our Transportation Committee, Centennial Committee, Young Members Group, and Life Members Forum. We also promoted and participated in the annual EPA P3 student competition, Potomac Piranhas Hackathon, and Engineering Your Success training. Our Geotechnical Committee has been especially busy hosting a luncheon meeting on the VDOT Downtown Midtown Tunnel, a student presentation competition, and a short-course on infrastructure monitoring instrumentation.

Looking forward into the summer, we will not rest. To the contrary, our many committees will continue to meet, plan, and organize additional activities. For example:

- Young Members Group has a Nationals game outing on June 5, in



addition to their monthly happy hours the first Wednesday of each month.

- Water Resources Committee will host a luncheon presentation with the US Army Corps of Engineers in late June.

- Transportation Committee will host a Saturday field trip/family outing with the DC National Railway Historical Society in July, which will include an actual diesel-powered train ride!

- Centennial Committee will finalize its full slate of more than two dozen activities and programs over the next year, some of which have already begun. Our Centennial anniversary year officially begins in September, and will be highlighted next spring with an all-day Centennial Symposium. The Symposium will feature more than a dozen speakers from some of our most recognized local civil engineering organizations, who will discuss both their history and future in the Capital region. It will be a great event for all civil engineers and prospective ones

as well, to learn about and rediscover our profession.

Additionally, we are close to finalizing both our Centennial Anniversary Book and our first-ever DC Infrastructure Report Card. Dozens of volunteers supported both efforts and the publications will be a great way to ring in the Centennial.

Finally, I would like to recognize and congratulate two local civil engineers from our Section. Dr. Ahmet Zeytinci, co-chair of our Education Committee, received the 2015 Engineering Education Excellence Award from the National Society of Professional Engineers, the Society's highest honor for education professionals. In addition, Admiral Michael Loose just received ASCE's William H. Wisely American Civil Engineer Award. Both Dr. Zeytinci and Adm. Loose were honored at our Section Awards Banquet, and their most recent awards continue to recognize them for their tremendous contributions to the civil engineering profession. Well done!

Chris Manalo
ASCE-NCS President

Former ASCE President and Longtime Sustainability Advocate, Albert A. Grant, Dies

By *Jeanne Hamrick, ASCEnews*

Albert A. Grant, F.ASCE, P.E., Pres.88.ASCE, the 1988 American Society of Civil Engineers president, and the former chair of the Engineers' Forum on Sustainability of the American Association of Engineering Societies (AAES), died on April 2 at his home in Potomac, Maryland. He was 88.



Mr. Grant was the ASCE Committee on Sustainability chair for many years, and served in the same capacity for the AAES Engineers' Forum on Sustainability. In 2010, he received the ASCE President's Medal for his years as a leading force for adoption of sustainability in civil engineering. He also was a strong supporter

of the Key Contact program and of the ASCE Foundation, and was instrumental in the move of ASCE headquarters to the Washington, DC, area. A number of ASCE staff and volunteers attended Mr. Grant's funeral.

To learn more about Mr. Grant, visit <http://blogs.asce.org/former-asce-president-albert-a-grant-dies-at-88/#sthash.xWIOGdtF.dpuf>. ■

Newsletter

Rachel Schneider, Editor

September Issue Deadline: August 15, 2015

To Submit Articles: newsletter@asce-ncs.org

NCS eNewsletter Archives: go to www.asce-ncs.org and click on the Newsletters tab.

Address Changes: Call 1-800-548-ASCE, e-mail member@asce.org, visit www.asce.org, or write: ASCE – Membership, 1801 Alexander Bell Drive, Reston, VA 20191. Include your membership number.

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Please refer to the [NCS website](http://www.asce-ncs.org) for a current list of NCS committees and chairs.

April Meeting Recap

An Evening with Mr. Sam Higuchi: Focus on Sustainability in Civil Engineering

The April 2015 NCS meeting focused on sustainability in civil engineering. Mr. Sam Higuchi, National Aeronautics and Space Administration (NASA) engineer and co-chair of the Federal Interagency Forum on Climate Change Impacts and Adaptations, discussed federal policies and programs for climate change adaptation, NASA's programs for observing and understanding climate change phenomena, and how the Agency is adapting its facilities for the future.

As the evening began, Mr. Higuchi expressed his pride in NASA's ability to inspire people to seek out answers to questions concerning the universe and our world as an organization. Approximately 66 percent of NASA's assets are within 16 feet of sea level, according to Mr. Higuchi. Therefore, the Agency's capability to maintain its mission as a U.S. space transportation

agency is susceptible to the consequences of global climate change, such as rising sea levels and increased storm intensity. The key to preparing for future changes is to move beyond static methods of design, according to Mr. Higuchi. Mr. Higuchi based this the changing patterns of data, which follow a hinge-fit distribution instead of a linear projection into the future. Based on the data collected by NASA, National Oceanic and Atmospheric Administration (NOAA), and other agencies, since the 1970s, recurring events are happening more often.

The presentation concluded with a focus on the proactive steps we can take to for the future. Mr. Higuchi encouraged NCS members to establish meaningful dialogue between climate scientists and the infrastructure designers. He also advocated design alterations that will withstand the predicted future extreme environmental changes while continued study of the causes and effects of these changes to ensure that the design factors maintain a high level of accuracy. ■



Congratulations Dr. Ahmet Zeytinci on your 2015 NSPE Engineering Education Excellence Award!

The Sustaining Universities Program of the Professional Engineers in Higher Education of the National Society of Professional Engineers (NSPE) established an award to recognize engineering educators each year. This national award recognizes engineering faculty who have demonstrated the ability to link engineering education with professional practice. The recipients must be licensed and have a faculty appointment in an ABET-accredited engineering program.



Ahmet Zeytinci, Ph.D., P.E. (Dr. Z) is a professor of structural engineering and former Chair of the Department of Engineering, Architecture, and Aerospace Technology

at UDC. Dr. Zeytinci has been actively involved in research and peer-reviewed conference presentations for the last six years, publishing three papers every year regularly. He has more than 30 years of experience in teaching,

research, and engineering practice in Europe, Japan, and the U.S. Named Engineer of the Year in 2013 by the DC Council of Architects and Engineers, Dr. Zeytinci is active in local professional organizations, including NCS. Dr. Zeytinci has been teaching free engineering licensure exam preparation classes for practicing engineers and students on Saturdays for the last 10 years.

Check out [Dr. Z's Corner](#) in the newsletter! ■

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Michael K. Loose, P.E., Dist.M.ASCE, Bestowed William H. Wisely American Civil Engineer Award

Upon the recommendation of President Robert Stevens, Mr. Loose was selected for the William H. Wisely American Civil Engineer Award. "For his leadership in ASCE and service to our nation, where his passion and courage revolutionized the Navy's approach to civil engineering and are helping to guide and advocate for change in our nation's approach to infrastructure." **NCS congratulates Mr. Loose on his award!**



Michael K. Loose, P.E., Dist.M.ASCE, serves as senior vice president and manager of the Infrastructure and Environmental Division at Parsons Corporation. He leads 1,800 employees,

Parsons' global infrastructure, and environmental services to federal government clients that encompass the full life cycle of the natural and built environments. Prior to joining Parsons, he served in the U.S. Navy for 35 years and retired as a vice admiral and as the deputy chief of Naval Operations for Fleet Readiness and Logistics. He led the planning, programming, and resourcing (\$32 billion annually) of the navy's energy, environmental, and logistics programs and the maintenance and operations of its ships, submarines, aircraft, and shore infrastructure.

Mr. Loose has served as a proactive member of the ASCE Civil Engineering

Research Foundation, the ASCE Civil Engineering Forum for Innovation, the ASCE Industry Leaders Council, and now as the vice chair of the ASCE Industry Council. In addition, he served as an Industry Forum panelist at the Society's 2009 annual national conference and chaired the ASCE National Infrastructure Life-Cycle Costs and On-going Maintenance Roundtable. In 2013, he was awarded an Outstanding Projects and Leaders (OPAL) Lifetime Achievement Award for Management, the 2009 Henry L. Michel Award for Industry Advancement of Research, and the 2010 John L. Parcel–Leif J. Sverdrup Civil Engineering Management Award. Mr. Loose was designated a Distinguished Member in 2014. ■

Continuing Education

Region 2 ASCE 2015 Summer Continuing Education Seminars and Workshops

Program	Date	City, State
Designing Nonbuilding Structures Using ASCE/SEI 7-10	June 11–12	Pittsburgh, PA
Mechanized Bridge Construction New!	June 18–19	Baltimore, MD
HEC-RAS Computer Workshop	July 8–10	Baltimore, MD
Seismic Analysis of Structures and Equipment New!	July 30–31	Washington, DC
Structural-Condition Assessment of Existing Structures	August 27–28	Baltimore, MD
Structural Renovation of Buildings – Newly Updated for 2012 IBC and IEBC	August 13–14	Philadelphia, PA
Ownership Transition Planning: Company Valuations and Strategic Planning	September 3–4	Philadelphia, PA
Industrial Buildings: Design and Renovation New!	September 10	Pittsburgh, PA
Design of Concrete Pavements New!	September 10–11	Baltimore, MD

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NCS Committee News and Updates



Younger Members Forum

Monthly Happy Hours: The NCS Younger Members Forum (YMF) holds monthly happy hours in Arlington, VA or Washington, DC. Happy hours are usually the first Wednesday of each month unless a holiday falls during that week. The May happy hour occurred at *Local 16* on Wednesday May 6, 2015.

The June monthly happy hour will take place in Arlington, VA at [Arlington Rooftop Bar and Grill](#) from 6–8pm on Wednesday, June 3, 2015. Join younger members from the area for complimentary appetizers and drink specials. Look for emails with specific locations for future monthly happy hours!

Join us for monthly happy hours through-out the summer!

- **July 1** (Wednesday): TBD, Arlington, VA
- **August 5** (Wednesday): TBD, Washington, DC

Nationals Baseball: On June 5, YMF is having a night out at Nationals Park. If you missed this outing, do not worry, we are hoping to partner again with AGC for a joint baseball night in early August. Look for upcoming emails with information.

2015 Planning Meeting: The YMF will hold its annual planning meeting at the end of August (exact date TBD). During the meeting, YMF officers will discuss the successful events from this year, make plans for upcoming YMF events, and vote on new YMF officers for the 2015–2016 year. Other topics will likely include monthly YMF happy hours, professional development meeting potential topics/speakers, YMF participation in local volunteering events, and involvement with local university student chapters. If you have suggestions for professional development meeting topics, or would like to become more involved with the YMF in other areas, please contact the YMF President at ncsymfpresident@gmail.com.

Stay Connected! Check out photos and stay up-to-date with YMF events by visiting the new [YMF Facebook page](#). Also, follow us on [Twitter](#) (@asce_ncsYMF).

Get Involved! Are you interested in getting involved with more Younger Members activities? Do you have ideas for social events or volunteering activities? Would you like to be a board member? The NCS Younger Members Group is always looking for new members! Let us know if you are not already on our mailing list! If you would like to become more active with the YMF or would like more information on our events, please email the [YMF President](#).

Centennial Committee Engineering the Nation's Capital

A Centennial Celebration! What better way to promote our civil engineering profession than by holding events that highlight the NCS accomplishments since 1916. NCS's Celebration affords an excellent opportunity to promote and honor our civil engineers and their accomplishments.



Our Centennial Celebration Commemorative Book will be full of great examples to show family and friends what we do as civil engineers. In the office, the Book will highlight our profession's accomplishments by showing how our civil engineers have served the nation and the public for the last century. In schools and libraries, the Book will be a tool to reach students and the public to promote careers in civil engineering as a means to ensure our profession's future. We will be taking orders soon!

The Centennial Celebration will also host events including tours of significant projects and infrastructure in the Washington, DC area. These family friendly tours will show how civil engineers have made life better and healthier for the public, while generating an interest in pursuing a civil engineering career. The Centennial Celebration Committee will work with government organizations

and engineering firms to solicit their involvement in our promotional activities; reach out to students to promote the benefits of a civil engineering education and career; and hold a Gala where our profession and our civil engineers will be recognized and honored.

Therefore, please join us. Your participation on the Centennial Committee will allow NCS to reach our goals to promote our profession, to interest students in civil engineering, and to recognize our members' accomplishments over the last hundred years. We need your help by:

- Researching projects for the Centennial Commemorative Book;
- Conducting tours of engineering achievements;
- Participating in outreach program to students and the public; and
- Assisting with the Centennial Gala Celebration.

So, whether you are a Young Member, a Life Member, or somewhere in between, please join us by contacting the Centennial Committee's Secretary at vicris51@verizon.net.

An Update from the Water Resources Committee

During the third week of June 2015, the Water Resources Committee is planning a luncheon with Chandra Pathak from the US Army Corps of Engineers. Look for the meeting e-vite for details and luncheon date/time. On April 24, 2015, the Committee held its quarterly committee meeting. Members interested in participating in future events should reach out to email [Piers Causton](mailto:Piers.Causton). ■

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Sustainability Spotlight: University of Florida Wins 2015 ASCE Sustainable Development Award at EPA P3 Competition

By [Jeanne Hamrick](#)

A team of students from the University of Florida (UF) was honored with the ASCE Sustainable Development Award at the Environmental Protection Agency's EPA P3 (People, Prosperity, and the Planet) Award Competition on April 11–12, 2015, at Oronoco Bay Park in Alexandria, VA.

The UF team designed its project, "Feed the UriNation Using Contaminant-Free Fertilizer," as a scalable, low-cost treatment system to remove pharmaceuticals in source-separated urine using water materials. The final result of this process is a local fertilizer for use in developed and developing countries.

"By removing pharmaceuticals from urine, we not only reduce pharmaceutical contamination of the environment, but also enable the use of urine as an alternative fertilizer," said Stephanie Ishii '15, Ph.D. Environmental Engineering.

The contaminant-free-fertilizer project is based upon the fact that urine contributes 80% of the nitrogen, 50% of the phosphorus, and 50% of the pharmaceuticals in wastewater, but only 1% of the volumetric flow.

"Using source-separation techniques, it is expected that valuable nutrients, phosphate, and potassium could be harvested from wastewater," said Treavor H. Boyer, Ph.D., associate professor of the University of Florida's Department of Environmental Engineering Sciences. "This process would offer many benefits, including conserving drinking water, cutting fertilizer expenses, and offering the University of Florida the opportunity to be a leader in the important sustainability effort."

When the Florida Gators play football, the UF team intends to harvest nitrogen, phosphate, and potassium from the game-day wastewater for use as fertilizer. UF student researchers will identify the volume and composition of wastewater produced at Ben Hill Griffin Stadium during a Gators game. The amount of fertilizer used on UF's Florida Field and its composition will also be determined.

A simple mathematical model will be created to determine the amount of fertilizer that could be produced



Celebrating the University of Florida's 2015 ASCE Sustainable Development Award are, from left, Lek Kadel, EPA, acting assistant administrator for research and development; Michael R. Sanio, M.ASCE, CAE, ASCE director of conferences; Madelyn Pandorf '16, B.S. Environmental Engineering; Stephanie Ishii '15, Ph.D. Environmental Engineering; Kelly Landry '17, Ph.D. Environmental Engineering; Avni Solanki '18, Ph.D. Environmental Engineering; Daniella Saetta '16, M.S. Environmental Engineering; and, Alex Rosenheim, P.E., LEED AP BD&C, M.ASCE, ASCE NCS Sustainability Committee chair.

from nutrients in the urine wastewater collected during a football game. Technologies available for harvesting nutrients from urine will also be explored at the laboratory scale, including perceptual and absorption technologies. Students and researchers will gather information by conducting laboratory experiments, reading peer-reviewed literature, and talking with faculty experts on the UF campus.

"We were very excited to identify two biochars originating from bamboo and southern yellow pines that were able to remove greater than 90% of two widely used pharmaceuticals from urine," Ishii says.

"One of the key elements that ASCE values in all its efforts is to pay attention to the triple bottom line: economic, environmental, and social," said Alex Rosenheim, P.E., LEED AP BD&C, M.ASCE, chair of the ASCE NCS's Sustainability Committee. "There are so many wonderful ideas and projects, and what we focused on is the impact the project can have on the developing world. The University of Florida project includes our values and exceeds our objectives."

This is the 11th year that ASCE has presented an award at the EPA P3 Competition. The ASCE Sustainable Development Award, which includes

\$1,000 for the school and a certificate for each of the team members, recognizes the project which best represents 3 criteria: use of local raw materials, simplicity of design, and widespread impact on quality of life for the developing region.

Visit <http://blogs.asce.org/university-of-florida-wins-2015-asce-sustainable-development-award-at-epa-p3-competition/#sthash.q4FtW67t.dpuf> to read the entire article and see more photos.

Other participating teams and projects include:

- "Making Solar Beautiful: BISTEG USA," Arizona State University, AZ
- "It's Always Sunny in Escuintla: Solar Powered Water Treatment," John Brown University, AR
- "The Future of Sustainable Energy is Bulls#@!" UC Davis, CA
- "Digesting the Indigestible: Turning Food Waste into a Resource," University of Missouri, MO
- "Fast and Fluid Foam Filtration!" Cornell University, NY
- "Power to the People: A Hands-Free Way to Generate Power," Case Western Reserve University, OH
- "50 Shades of Greywater Go Green," Austin Community College, TX ■

A New Era for the PE Exams: Are You Ready for the New Specifications?

Part 3 – Civil Breath and Water Resources and Environmental Depth Exams

As we discussed in last month's article, April 2015 is an important month for all engineers who are planning to take their PE exams. Because effective April 2015, the new PE exam specifications were implemented. In the [March](#) and [April](#) issues, we discussed in detail the new specifications for the "Construction Module" and "Geotechnical Module." This month we discuss the "**Water Resources and Environmental Module**" afternoon depth exams.

PE Civil exam basics:

- Offered twice a year; in April and October.
- Designed for engineers with FE (EIT) certificates who have at least four years of post-college work experience in their chosen engineering discipline.
- Lasts 8 hours and consists of multiple choice questions. Every problem on the PE exam is **stand-alone** (there is only one question per problem).
- Split into a morning and an afternoon session (4 hours each; 40 multiple choice questions each).
- Both sessions use SI units and the US Customary System (USCS).
- Morning and afternoon session exam results are combined with breath results for final score.
- The [February issue](#) of our column details the morning **breath** session of the exam.
- The afternoon **depth** section focuses on a single area of practice in civil engineering to test an engineer's ability to practice competently in one of the five sub-disciplines of the civil engineering.
- The exam is scored based on the afternoon module selected during registration.

PE Civil Water Resources and Environmental – Afternoon Depth Exam Specifications

The afternoon session of the PE Civil Water Resources and Environmental depth session includes questions that require a variety of approaches and methodologies, including design, analysis, and application. Some problems in the afternoon session may require knowledge of engineering economics.

A typical breakdown with approximate number of questions:

- **Analysis and Design:** 4 questions,
- **Hydraulics–Closed Conduit:** 5 questions,
- **Hydraulics–Open Channel:** 5 questions,
- **Hydrology:** 7 questions,
- **Groundwater and Wells:** 3 questions,
- **Wastewater Collection and Treatment:** 6 questions,
- **Water Quality:** 3 questions,
- **Drinking Water Distribution and Treatment:** 6 questions,
- **Engineering Economics Analysis:** 1 question.

The exam is open-book. According to NCEES, you can bring bound reference material, loose paper bound with ring binders, plastic snap binders, and spiral-bound notebooks. All paper must remain bound during the exam, and sticky notes and flags must remain attached to book pages. Do not bring any kind of graph paper with you into the exam. You can write only on the exam materials from NCEES.

According to former students who recently took the PE exam, make sure you review how to use the Darcy-Weisbach, Hazen-Williams equations,

and the Moody Diagram. Don't be surprised when you see some structural, geotechnical and transportation problems as well.

As we always remind our readers, these are very fast-paced exams and you will have little time to look up information. Therefore, make sure you are familiar with your reference material and begin with the subject areas you know best. This will give you more time and build your confidence. To help prepare for the exam, [here](#) is this month's problem set.

Remember, it is always good idea to consider reverse engineering the problems by substituting the answers and seeing which one works. It is also important to remember that every problem on the PE exam is stand-alone. There are no problem statements with many related questions.

And finally, stay relaxed and confident. Always keep a good attitude and remind yourself that you are going to do your best!

Until next time,
Ahmet Zeytinci, P.E.,
(Dr. Z.)
drz@alfam.com



NCS Congratulates Dr. Zeytinci on his 2015 National Society of Professional Engineers/ Professional Engineers in Higher Education/Sustaining University Program Engineering Education Excellence Award!

Upcoming Events *(Also available on the NCS website under the [Events tab.](#))*

June 1—NCS Centennial Committee, 11:30–1 pm, Washington, DC. Please email Committee Secretary [Vic Crawford](#) for additional information.

June 3—YMF Monthly Happy Hour, 6–8 pm, at [Rooftop](#) in Courthouse, VA. Join other younger members from the area for while you enjoy free appetizers and drink specials.

June 5—YMF Nationals Game, Nationals Ballpark. If you missed registration for this event, check your emails for another potential event in August.

June 12—NCS Life Members Forum, 11:30–1 pm, Washington, DC. Email [Chris Manalo](#) or call (703) 377-1697 for additional information.

July 1—YMF Monthly Happy Hour, 6–8 pm, TBD, Arlington, VA. Join other younger members from the area for while you enjoy free appetizers and drink specials. Watch for upcoming emails for more information.

July 6—NCS Centennial Committee, 11:30–1 pm, Washington, DC. Please email Committee Secretary [Vic Crawford](#) for additional information.

July 10—NCS Life Members Forum, 11:30–1 pm, Washington, DC. Email [Chris Manalo](#) or call (703) 377-1697 for additional information.

August 3—NCS Centennial Committee, 11:30–1 pm, Washington, DC. Please email Committee Secretary [Vic Crawford](#) for additional information.

August 5—YMF Monthly Happy Hour, 6–8 pm, TBD, Washington, DC. Join other younger members from the area for while you enjoy free appetizers and drink specials. Watch for upcoming emails for more information.

August 5–7—50th EWRI/ASCE Watershed Management Symposium, Reston, VA. This multidisciplinary event unites engineers, hydrologists, soil scientists, foresters, environmentalists, and other disciplines for technical presentations

and networking opportunities in the midst of the Potomac and Chesapeake watersheds. For more information, visit the [website](#).

August 14—NCS Life Members Forum, 11:30–1 pm, Washington, DC. Email [Chris Manalo](#) or call (703) 377-1697 for additional information.

August 23–26—ASCE-sponsored Pipelines Conference 2015, Baltimore Marriott Waterfront Hotel in Baltimore, MD. The conference will focus on recent advances in underground pipeline engineering and construction. For more information, click [HERE](#).

September 15—NCS Monthly Meeting, 6–8:30 pm, at Arlington Hilton. Visit our [website](#) and look for more information in upcoming emails.

Employment Clearinghouse

The NCS provides the Employment Clearinghouse as a free service to its membership. The Clearinghouse allows members to post short notices for available positions or candidates seeking employment. All employers listed herein are equal opportunity employers. If you have questions, are seeking employment or would like to post a position please contact the [newsletter editor](#) and visit our [jobs page](#).

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