

NewsletterFederal Water Quality Association

An Affiliate of the Water Environment Federation; www.fwqa-dc.org

2016-17 Theme - Water Infrastructure: Now and Future

Honoring the 2017 Scholarship Award Winners by Sharon Nye



2017 FWQA Scholarship Winners Valerie Knowles, Isabel Whaling, Henry Ulrich, and Matthew Ritchie smiling at the award festivities...See more pictures and read other articles on right and pages 3 and 4 in this issue.

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Congratulations to the FWQA 25th Annual Capital Environmental Scholarship Program winners! The 2017 scholarship awardees are Henry Ulrich of St. Mary's County (Olem Scholarship); Isabel Whaling, Anne Arundel County (President's Scholarship); Matthew Ritchie and Valerie Knowles of Loudoun County (Barber and McCallum Scholarship respectively).

These four outstanding students were honored along with local science fair winners at FWQA's yearly awards luncheon held at the Elephant & Castle in May. The talented young men and women were awarded \$2,000 each and will go on to pursue their environmental studies at various universities in the U.S. Applicants from Washington, DC and surrounding Maryland and Virginia counties are rated on academic achievement. environment-related essays, references, extra-curricular activities related to the environment, and overall presentation. The selection process is not an easy one especially since FWQA received many high caliber applicants whose environmental awareness relating to water quality was versatile.

Thank you to our judging committee: Christian Davies-Venn (PEER Consultants), Sheila Olem (Herndon Town Council), Mary B. Klein (EPA retired), Beth Conway, WEF, and Sharon Nye (FWQA), for their hard work and dedication to this program and especially to our sponsors – this program wouldn't be possible without you!

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President's Corner

As I complete my time as the President of FWQA I want to thank all of the other Board members for their time and efforts supporting the activities of the Association. I also want to thank the many speakers we have had at our numerous luncheons over my tenure. A special thanks goes out to Sharon, the committee, and our sponsors for supporting the annual scholarship program. I want to recognize the Chesapeake WEA for joining the scholarship program this year and look forward to continuing our collaboration in the future. I am handing off the reigns to a most capable in-coming President, Jan Goodwin. Please join me in wishing her well.

Gregory Mallon

A Huge Thank You to Our Scholarship Sponsors!

National Association of Clean Water Agencies (NACW)

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Deane Delivers Keynote Talk at 2017 Scholarship & Awards Event

by K. Jack Kooyoomjian, Ph.D

On May 18, 2017 at the Elephant & Castle Restaurant, Washington, DC the Federal Water Quality Association (FWQA) introduced the Scholarship & Awards Luncheon Keynote Speaker Mr. Michael Deane. Michael is the Executive Director of the National Association of Water Companies (NAWC) headquartered in Washington, DC, as well as serving on the Water For People Board. Prior to joining the NAWC, Mr. Deane served as Associate Assistant Administrator for Water in the U.S. EPA from 2007 to January 2009. Prior to being appointed to this position, he served as Senior Policy Advisor, Infrastructure Finance, for the Agency's Office of Water. The opinions expressed in his presentation are the speaker's alone and not those of the NAWC.

Mr. Deane opened with the observation that this is Infrastructure Week in the United States. The basic message is that it is "Time to Build." He observed that water infrastructure is most critical and essential to many aspects of our lives, and that with respect to human infrastructure, humans need to be cared for, nurtured, and encouraged, as well. He remarked to the students in the audience, that before they were born, water and wastewater professionals were delivering clean, safe drinking water and treating our wastewater to achieve a clean environment.

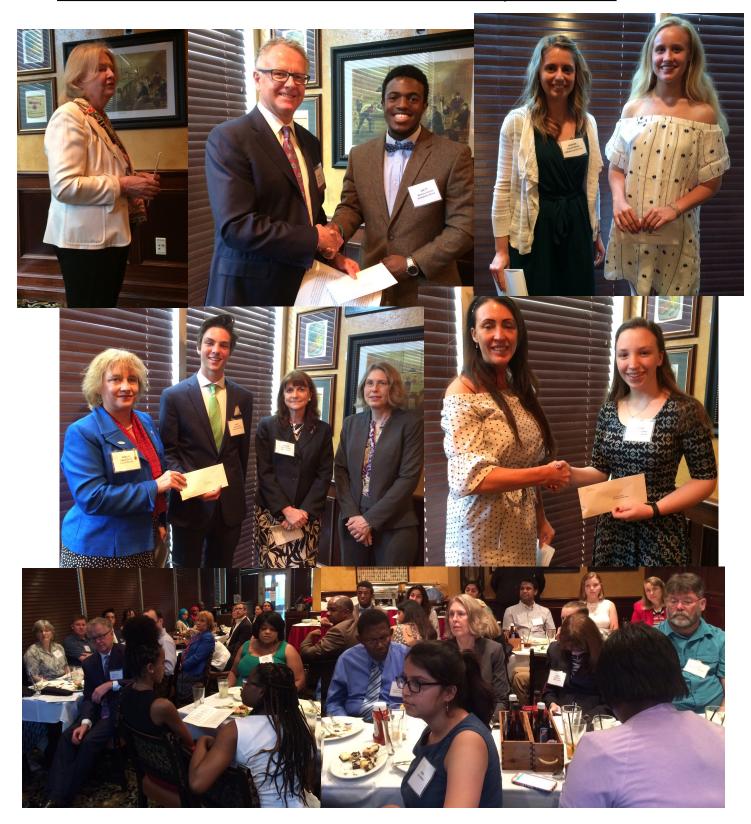


Michael observed that we, as a country and at the Federal, State and local levels have faced a variety of difficulties and challenges in infrastructure management. We have a responsibility for stewardship of our water and wastewater infrastructure composed of drains, pipes, hydrants, pump stations, treatment plants, and other infrastructure, yet there are many barriers to overcome.

Mr. Deane quoted Isaac Asimov, an esteemed American scholar, author, and professor of biochemistry at Boston University, who was known for his works of science fiction and popular science, with the quote that "The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom. Never let your sense of morals prevent you from doing what is right, because ... In life, unlike chess, the game continues after checkmate." He was directing his comments toward the fact that the country needs good engineers to apply science and technology to build and maintain our water and wastewater systems, dams, roads, bridges and other critical infrastructure, observing that "Water touches everything."

He remarked that our young people as future professionals have a responsibility to gain knowledge, share ideas, seek answers, and embrace the science of water as we seek to promote, improve and maintain our water and wastewater infrastructure. He related that he was blessed to grow up in Minnesota, which was known widely as the region of 10,000 lakes, and where he was sensitized to the majesty of our parks and the water environment as a youth. It was this appreciation and sensitivity which followed him throughout his professional career and, in a sense, prepared him for the opportunities that were presented to him later in life.

Mr. Deane's inspirational presentation was followed by the recognition of our scholarship and science fair winners.



On May 18, FWQA members introduced and congratulated scholarship and science fair winners. Top left, Scholarship Committee Chair, Sharon Nye begins the scholarship award festivities by introducing sponsors and presenters; top center, Michael Deane (NAWC) presents Matthew Ritchie with the Barber Scholarship Award; top right, Jennifer Moore (CWEA) presents Isabel Whaling with the President's Scholarship Award; center left, Sheila Olem, and Maureen O'Neill and Beth Conway (WEF) present Henry Ulrich with the Olem Scholarship Award; center right, Amanda Waters (NACWA) presents Valerie Knowles with the McCallum Scholarship Award; bottom, awardees, parents, and friends listening intently to the award luncheon festivities.

2017 Science Fair: Thanks to the Judges and Kudos to the Winners and Their Spectacular Water Topics by Janet K. Goodwin

FWQA attended five regional science fairs this past March. Thanks to everyone who judged: Sharon Nye, retired WWEMA; Anthony Tripp, EPA; Eliabeth (Beth) Conway, WEF; Alicia Ritzenthaler, LimnoTech; Brian Schnitker, EPA; Kim Slack, Johns Hopkins University; Bipin Pokharelb, Peer Consultants; Joe Ford, EPA; and Janet Goodwin, EPA. Our first place winners along with their project topics were:

Skylar Brodowski, Long Term and Short Term Effects of NASA Rocket Launches on Groundwater Contamination Around Virginia's Eastern Shore

James Licato, Utilizing Bioreactors: The Effect of Changing pH on the Amount of Nitrate Removed and Gas Produced by Denitrifying Bacteria

Riley Johnson and Ainsley McCabe, *The Type of Surface on the Depth of Visibility and Erosion in Water*

Abigeal Cronan, Wait Who Does This Benefit? The Affect of Nano Colloidal silver on Daphnic Magna

Jessica Liu, Alex Huges, and Rebecca Hawkins, The Effect of Salinity on the Toxicity of Atrazine to the Hyper- Hypo- Osmoregulator Palaemonetes Pugio

Joseph Claire, Is Water in Our Rain Barrels Safe?

Nishi Mehta, The Effects of Detergents on Worms

Betelihem Tadesse and Ruth Kone, Ethanol Distillation Facility

Charlotte Peterkin, The Effect of Water Temperature on Coral Bleaching

Katherine Soltani, Reem Ali, and Neha Malik, Nanosilver, the Nanokiller

Matthew Ritchie, Removal of Virus-sized Particles Using the Baterial Files Xylem Pits of Pinus sp.

Malvika Kuncham and Jeevna Prakash, Combating Chesapeake Bay Algal Blooms

Congratulations to all our Science Fair winners!



Left - 2017 science fair winners and right, Janet Goodwin, Science Fair Committee Chair and FWQA President-Elect.

Water For People News

Moxley Receives Water For People 2017 KJM Award

Past DC Water For People Committee Co-Chair, Rachael Moxley, receives the prestigious Kenneth J. Miller (KJM) Founders Award. The KJM Founders' Award honors one of Water For People's founders and its first president, and acknowledges outstanding volunteers whose hard work and incredible generosity keep Water For People's mission moving forward. Rachael is a past Committee Co-Chair and helped on-board the current Committee Chair. In 2015, she was instrumental in bringing to fruition the Committee's unorthodox out-of-the-box idea for a World Water Day event - an afternoon of music, spoken word, and skits, all focused around the theme "A World Without Water" - which was a huge success. Rachael's hard work and great attitude are always appreciated! If you're heading to ACE17 in Philly this June, come to the Water For People Award Luncheon to see Rachael receive her plaque! To register for the luncheon and learn more about other Water For People events at ACE17, visit: https://www.waterforpeople.org/get-involved/ace17.

Run for Team Water For People at the Marine Corps Marathon

Do you like to run? Do you like water? Do you want to run to help people around the world gain access to safe drinking water? Then we have an event for you! Team Water For People will be running at the Marine Corps Marathon in October to support Water For People and mirror what millions of people around the world do everyday - travel long distances to collect clean water for their families. Not everyone runs a marathon, but Water For People believes that Everyone Forever should have access to clean water and proper sanitation. For more information and join the team, visit: https://njawwa.site-ym.com/page/WFPMCMarathon. Don't run, but want to make a donation? Check out our team of runners and their fundraising efforts to date on Crowdrise:

https://www.crowdrise.com/waterforpeoplemarinecorpsmarathon2017



Elyce Nollette,
Jennifer Howells,
and Kirsten Anderer
staffing the Water
For People table at
the March NOVA
Community College
World Water Day
Concert.



Building better water quality one job at a time: National Green Infrastructure Certification Program celebrates a first year of successes *By Pallavi Raviprakash*



Pallavi Raviprakash, Technical Programs Manager at WEF has provided technical support on several stormwater initiatives at WEF. She has been involved with the development and management of the NGICP. She has over ten years of experience working in the water resource field, both in the private consulting and non-profit worlds, and holds a bachelor's and master's degree in Environmental Engineering.

The National Green Infrastructure Certification Program (NGICP) has two main purposes: to encourage water quality improvements via green infrastructure (GI) projects and to create jobs for those who know how to build them. NGICP took several major steps in the past year toward achieving these goals and has several more in the works.

Initiated under the leadership of DC Water and the Water Environment Federation, NGICP sets certification standards for green infrastructure (GI) construction, inspection, and maintenance workers. The program takes a different tone than most GI and water quality programs. It focuses on the "how" of GI. The program's certification establishes green workforces to give utilities and private customers confidence in their choice of landscape and construction providers. It also provides a credential to certified workers that meets international best practice standards. And because the program is national in scope the same certification will apply from coast to coast, providing a "portable" credential that will expand beyond the U.S. eventually.

Major development

During the development phase of the program in 2016, NGICP took several major steps to carefully conceive a nationally relevant certification program. WEF convened 14 founding partners (see list on p. XX) to create the necessary governance and foundational materials.

Representatives from the founding partner organizations participated in the Technical Advisory Group (TAG) and the Strategic Advisory Group (SAG). The TAG oversees the development of the program's technical components, while the SAG develops the vision and the implementation plan for the national rollout of the NGICP. A separate Certification Council oversees the program's governance elements.

First, these groups conducted a job task analysis survey to determine what components the program

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National Green Infrastructure Certification Program

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the program needed to cover. They fed these survey results into an exam blueprint, which led to an official curriculum. Training support materials came next as the first exam was developed.

First exam

This progression led to the inaugural NGICP exam on Dec. 13, 2016. Seven locations — corresponding to many of the founding partners — hosted the exam for more than 90 applicants. Exam locations included:

Washington, D.C

Baltimore, Md.

Rockville, Md.

Harrisburg, Pa.

Pittsburgh

Fairfax County, Va.

Milwaukee

The 3-hour exam tested applicants on their knowledge of entry-level green infrastructure fundamentals, construction methods, inspection techniques, and maintenance procedures in accordance with the Exam Blueprint.

First class and continued improvement

On Jan. 26, 2017, NGICP announced its first class of 62 certified individuals who passed the exam.

Now, NGICP will use this year to refine policies and procedures and continue to build the exam database.

For 2017, training and exams will be available only through the NGICP founding partner organizations. Plans are underway to offer additional NGICP training sessions and exams in the spring and fall. The first exam date in 2017 is set for June 6 and the second in November (specific date TBD).

National debut

In 2018, NGICP will celebrate another milestone: the national launch of the program. This expansion will broaden the partnership and enable other utilities and municipalities to join. Affiliate partners could include nongovernmental organizations, workforce centers, government entities, trainers, and training providers who share a common goal of developing a of GI workforce.

Through this nationwide program certified individuals can set foot on long-term and sustainable path for living wage jobs — often in dense, urban areas where such opportunities can be scarce. By design, these are the same communities where utilities are investing in GI projects.

NGICP will help to ensure a beneficial cycle of employment, water quality improvement, and community development. The workers benefit from employment. The utilities benefit from low-impact, distributed stormwater management. The community benefits from the ancillary advantages of GI such as more green spaces and neighborhood beautification as well as air quality and habitat improvements.

For more background on NGICP as well as the latest news, visit www.ngicp.org.

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National Green Infrastructure Certification Program (continued from page 8)

National Green Infrastructure Certification Program Founding Partners

DC Water, Washington D.C

Milwaukee Metropolitan Sewerage District (MMSD), Wisconsin

Montgomery County, Maryland

Kansas City Water Services Department, Missouri

Fairfax County, Virginia

City of Baltimore Department of Public Works, Maryland

Louisville Metropolitan Sewer District, Kentucky

San Francisco Public Utilities Commission, California

Capital Region Water, Harrisburg, Pennsylvania

Metropolitan Water Reclamation District of Greater Chicago, Illinois

New Orleans Delegation, Louisiana

Pittsburgh Water and Sewer Authority, Pittsburgh, Pennsylvania

Metropolitan Sewer District of Greater Cincinnati, Cincinnati, Ohio

Boston Water and Sewer Commission, Massachusetts

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The World Water Day Concert at Schlesinger Concert Hall, Alexandria, VA featured the NOVA Community Chorus directed by Dr. Mark Whitmire (pictured at left).

Inset shows FWQA members Joe Ford, Mary Klein, and Jim Wheeler staffing the FWQA table in the lobby. Concert goers gave donations to FWQA, WFP, and the Alice Ferguson Foundation. The concert featured music, dance, and readings related to water resources.

5S Chapter Installs Two Members

by K. Jack Kooyoomjian, Ph.D, pH 7 Influent Integrator - FWQA 5S Chapter

With great pomp and ceremony, the FWQA's pH 7 Influent Integrator, Dr. K. Jack Kooyoomjian installed two new members into the FWQA's Chapter of the 5S Society. This ceremony took place at the Elephant & Castle Restaurant, Washington, DC. The inductees so honored were elevated to the highest ridge of the sludge bed, with all the lifetime honors, rights, privileges and responsibilities thereunto pertaining for this exalted and much-coveted position. Those so honored included Gregory J. Mallon and John A. Kosco.

The honorees received their Golden Shovel, their sludge (Burnt Biosolids) Memento, their updated history of the Select Society of Sanitary Sludge Shovelers, containing many gems of wisdom, including the secret hand-shake and greeting, the 5S Society Universal Distress Signal, the 12-page document containing the FWQA Chapter's 5S history, tradition, rules & folklore, and a list of all FWQA 5S members since our Chapter was installed on November 15, 1986. In addition, they received select literature pertaining to sludge and biobricks, along with their genuine certificate signed by some of the 5S Society members. The job of the new 5S inductees is to seek others to complete the signing of their certificates. This is the fourth class since the installation of the first (Charter) class of 1986 that has not received the coveted Biobrick. The biobricks were originally commissioned by the Washington Suburban Sanitary Commission (WSSC), which contracted with the Maryland Clay Products Company to manufacture 600,000 biobricks. These biobricks were used to construct "Biobrick 1" at the Brighton Dam Park and at the Electrical-Mechanical Maintenance Building at the Parkway Wastewater Treatment Plant, which was the source of sludge used in making those biobricks. The "lifetime" supply was housed at the private residence of Dr. Edward Bryant, the Charter pH7 Influent Integrator, who is now Emeritus. His residence was visited by a natural disaster (wind storm and rain), and a very large tree fell splitting his house in two. In the ensuing cleanup and reconstruction process, the biobricks were hauled out of the garage and disposed of by the clean-up contractor. ... so we have provided a sanitary alternative to the Biobricks in the form of Burnt Biosolids from the Mooney Waste Reclamation Plant Incinerator in Prince William County, VA.

We welcome the newest members to the FWQA's 5S Chapter. May they wear their Golden Shovels

proudly!

Davies-Venn.



Mehan Elaborates on Water Quality and the Trump Administration

by K. Jack Kooyoomjian, Ph.D.

On March 30, 2017 at the Elephant & Castle Restaurant, Washington, DC the Federal Water Quality Association (FWQA) hosted Mr. G. Tracy Mehan, III. Tracy was introduced by FWQA President, Greg Mallon as the Executive Director for government affairs at the American Water Works Association (AWWA) and an Adjunct Professor at the Antonin Scalia Law School at George Mason University (GMU). He previously served as the EPA Assistant Administrator for the Office of Water during the administration of President George W. Bush. The opinions expressed in his presentation are the speaker's alone and not those of the AWWA or of the GMU Law School.

Mr. Mehan opened with the observation that public trust is at historically low levels, despite the repeated assurances by President Donald J. Trump. During the March Republican primary debate, then candidate Trump promised to eliminate the EPA, but in a subsequent speech in Pittsburgh, his thinking had evolved to where he said, "I will refocus the EPA on its core mission of ensuring clean air and clean, safe drinking water for all Americans." He also stated, "I believe firmly in conserving our wonderful natural resources and beautiful natural habitats. My environmental agenda will be guided by true specialists in conservation, not those radical political agendas."

Tracy touched on the red state/blue state patterns, observing that there is a fundamental disgruntlement of government by the people. He opined that certain government activity and responsibilities may be transferred from the EPA to the Army, the Courts, and other venues such as State government. Even with this atmosphere of reduced public trust in the Federal government, there still is a need to address the very real and pressing issue of infrastructure needs of the country, as well as the challenge to meet and provide adequate financing and regulatory mechanisms that make sense to deliver necessary services and produce results that matter to the American people. He felt that there is a building consensus among certain organizations, such as AWWA, the National Association of Clean Water

Agencies (NACWA) and others that there growing need to:

- Double-down funding for the State Revolving Fund (SRF);
- 2) Provide full funding for projects under the Water Infrastructure Finance and Innovation Act (WIFIA), which is geared toward providing long-term, low-cost supplemental loans for regionally and nationally significant projects (See https://www.epa.gov/wifia);
- 3) Raise the cap on private equity funding; and
- 4) Protect tax-exempt financing.

Mr. Mehan discussed the need to raise the cap on Municipal Bonds, and believed that tax exempt financing appears likely to be "the Weapon of Choice" for infrastructure projects. He also recognized that a "skinny budget" will be a rough environment, especially for employees at the United States (US) Environmental Protection Agency. He further observed that in the current administration, the definition of "Waters of the US" will likely go into a "cryogenic freeze," along with such programs as "the Clean Power Plan," "State Grants," "Brownfields," "Superfund Cleanups," and such major regional and nationally-significant programs such as the Chesapeake Bay Cleanup Program. He envisions, unless the Congress intercedes, that there will be "death by a 1000 cuts."

He recognized that there is a need to keep up those advocacy programs that can make a difference to our Nation's environment, quality-of-life, and public health. He recognizes that with the changes in administrations and policy shifts, there is always a swing of the pendulum. As an example, he cited the President's recently signed Executive Order requiring a 2 for 1, where for each new rule that is adopted, 2 rules need to be eliminated. He recognized this as a crude attempt to reduce the burdens of regulatory compliance, and emulate rulemaking that has recently been engaged in the United Kingdom, Australia, Canada, the Netherlands and (Continued on Page 12)

Mehan Elaborates on Water Quality and the Trump Administration

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elsewhere. He noted that the Office of Management and Budget (OMB) tends to be much more proactive and empowered generally in Republican administrations, and that the Trump Administration is no exception. He offered that benefit/cost analysis as an evaluation tool will and should be aggressively used to assess new rules and their alleged effectiveness. He expects that OMB will put out initial guidance in the form of "Questions and Answers," and that they are trying to move this blunt instrument of the 2 for 1 rule to an economic equivalency.

Tracy sees that there is a goal of "A Net Zero Cap" over the course of the Fiscal year, and that it is going to be difficult for the regulatory agencies, such as the US EPA and others to meet the "Net Zero Cap" over time. This will apply to such major long-standing legislation such as the Clean Water Act, and the Safe Drinking Water Act. He noted that people are "scratching their collective heads" over how to implement the 2 for 1 rule. Most of the AWWA members are engaged in public utilities which are operating in a "fish bowl" in full public view as a part of the regulated community, as well as the dedicated public servants who are working to maintain the "public trust."

Mr. Mehan's presentation was followed by a lively question and answer session. One question pertained to the discharge of nutrients and, ecological and public health goals. Another question was concerning the Flint Michigan public health water crisis and the lack of public confidence in local, state and federal government. Mr. Mehan

felt that there never would have been a problem in the first place in Flint, Michigan if they simply had followed EPA's existing guidance in the current lead and copper rule. Now they do not have the resources and capital to take care of their problems. He noted the broader societal goal over the decades has been to remove private lead service lines. He cited the prevalence of lead service lines in Detroit. Chicago and elsewhere. He also cited the enormous challenges with the Great Lakes restoration initiative (the Great Lakes contain 1/5 of the world's supply of fresh water), the Chesapeake Bay Cleanup efforts (the Nation's largest estuary) the growth of programs to encourage green buildings, the land trust movement, the success of EPA's totally voluntary Energy STAR program, and other forces at play to improve the environmental condition. One question was "How do you deal with the lack of trust in the Federal Government?" He opined that it is reflective of attitudes of citizens. He gave an example of the current high trust by citizens in the US military.

Tracy reflected on his days as the AA for Water at the US EPA and such programs as the development of the CAFO (Concentrated Animal Feeding Operations) Rule. He cited these activities as good memories. The speaker and audience also tossed around the issue of private investment in water and wastewater infrastructure, but this issue remained in a state of flux.



Left, Tracy Mehan; right, FWQA members and luncheon attendees.

