

The Next Generation



These 14 new faces guarantee great things for the water industry

Only 1% of the 1,274 professionals the American Water Works Assn. surveyed in its 2016 State of the Water Industry report believed the water industry was fully prepared to cope with retirements of its aging workforce in the next five years.

Yet the individuals featured in these pages—all of whom are under 40 years old—offer some solace. They are engineers, wastewater operators, scientists, innovators and collaborators. Encouragingly, many of them also have taken the time to give their knowledge back to the water industry through presenting at trade shows, conducting facility tours or educating tomorrow's young leaders. With these men and women leading the way, the water industry is in good hands. **wwd**



Cristina Ahmadpour | Age 29
President | Isle Inc.

As president of Isle Inc., a technology and innovation consulting company in Honolulu, Cristina Ahmadpour works to optimize municipalities' wastewater systems, with a focus on secondary treatment. A member of the Water Environment Federation's (WEF) Water Leadership Institute Class of 2015, she graduated summa cum laude from Vermont Law School with a masters in environmental law and holds a Bachelor of Science in business administration from California State University, where she helped found the Cal State University San Marcos College of Business Alumni Chapter. Prior to her work at Isle, Ahmadpour worked for APG Neuros Inc., a manufacturer of energy-efficient high-speed turbo blowers. There, she led global sales campaigns by producing business plans, identifying local partners and developing sales opportunities. She managed \$8 million and a regional sales representative network in the western U.S., and led international sales projects in Mexico and Brazil. A frequent presenter at industry conferences, she has spoken once at the California Water Environment Assn. conference, three times at the Pacific Water Conference, two times at the Pacific Northwest Clean Water Assn. conference and once at the Montana Water Environment Assn. conference. "I chose to nominate Cristina for this award because she is an inspiring leader and a dedicated water quality professional who most certainly will—and already has—made an impact in this industry," wrote Brittany Burch, who manages Isle's Technology Approval Group.



Regina Cassanova | Age 35
Senior Project Manager | Trigon Associates LLC

A professional engineer in Texas, Louisiana and Florida, University of New Orleans graduate Regina Cassanova has more than 15 years of experience designing and constructing water and wastewater systems. Her specialties include water and wastewater treatment plants, from small packaged plants to complex plants larger than 200 million gal per day; collection and distribution systems; pumping stations; and storage facilities, including process and mechanical design and general civil engineering. She also has designed facilities for recycled water from wastewater treatment plant effluent. Prior to joining New Orleans-based engineering, consulting and management firm Trigon in 2011, Cassanova served as a process engineer for engineering firms AECOM and MWH, where she worked in a membrane treatment national technology practice group and a water and wastewater treatment plants specialty group. She has been a part of projects in the U.S., Australia, Haiti, Jordan, Libya and Palestine.



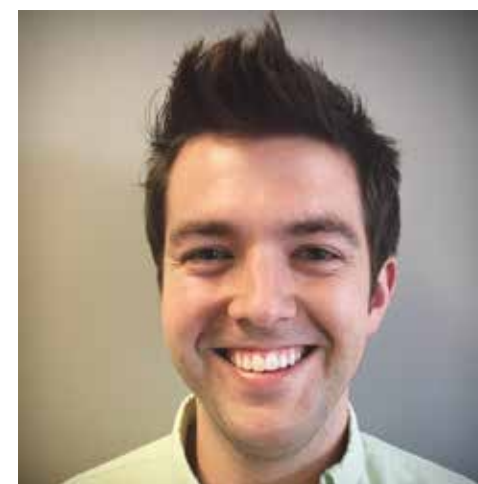
Leonard F. Bradley III | Age 34
Supervisor of Engineering | RGS Associates

Leonard F. Bradley III's name is not his only distinguished aspect. Over the course of his career, Bradley—who holds a Bachelor of Science in civil engineering from the University of Cincinnati—has designed and permitted a number of national and local award-winning projects recognized by the commonwealth of Pennsylvania, the Lancaster County Planning Commission and the U.S. Green Building Council. He has spearheaded green infrastructure improvements for projects including adaptive reuse and redevelopment of a tobacco warehouse, redesigned courtyards in a Lancaster, Pa., church and additions to a retirement community. Bradley is a licensed professional engineer in Maryland, New Jersey and Pennsylvania and is actively involved in the Pennsylvania Society of Professional Engineers. A specialist in storm water management and green infrastructure design and permitting, he provides expert testimony for third-party litigation in land development, hydrology and storm water management, and speaks about storm water management and green infrastructure at professional conferences. In his spare time, he mentors high school- and college-aged engineering interns and helps with the MathCounts math competition series for middle schoolers.



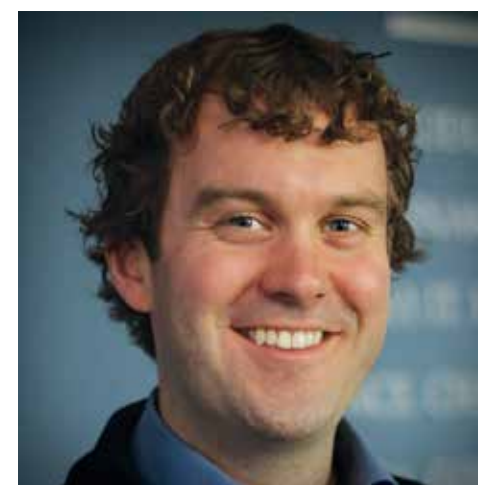
Ari Copeland | Age 35
Operations Specialist | Black & Veatch

Ari Copeland has more than 11 years of experience in the water and wastewater industries, in areas as varied as compliance, basic design, water and wastewater facility operation, startup and commissioning of water and wastewater systems, writing operations and management manuals, sampling, operator training, and volunteer and project management. A graduate of the University of Cincinnati with a Master of Science in civil and environmental engineering, he was one of the first in the industry to receive a Professional Operators designation through the Association of Boards of Certification. He also holds a Grade A water license and a Grade B Wastewater Operator's license through the state of Florida. Copeland is an incredibly active volunteer—he currently is the chair of the American Water Works Assn.'s (AWWA) Treatment Plant Maintenance and Operations Committee, which assists with the revision to the association's Manual of Practice for Fluoridation, and provides operator training through AWWA's webcast program. He also has chaired committees in the Florida and Rocky Mountain sections of AWWA; co-edited the Rocky Mountain AWWA's publication, Rumbles; and developed training for operators in conjunction with community colleges and nonprofit organizations.



Corey Donahue | Age 27
Applications Engineer III | Huber Technology Inc.

Corey Donahue started out studying mechanical engineering at the University of North Carolina. Four semesters later, he realized that he wanted to improve people's lives while "remaining incognito (not unlike Batman)," according to his LinkedIn profile, so he switched his major to civil engineering with advanced studies in mechanical engineering and LEED green building technologies and structural design. He graduated in 2012. Since then, he has acquired engineer-in-training certification from the National Council of Examiners for Engineering and Surveying and become an affiliate member of the American Society of Civil Engineers (ASCE). At Huber, he works as a mechanical design specialist for headworks screening—including wet separation and screening products—and as a product specialist in new screening technology. He coordinates with consulting engineers, project managers, control specialists and owners to bring projects in on time and under budget. He has worked on projects in the U.S. (including in West Virginia, Arizona, New Jersey and Missouri) and abroad (including Haifa, Israel) and has developed a dozen white papers and technical memos on the topic of advancing screening technologies.



Braden Galbreath-O'Leary | Age 30
Chief Operating Officer | Triplepoint Environmental LLC

"Lagoons Do It Better" is Braden Galbreath-O'Leary's motto. He is chief operating officer and co-founder of Triplepoint Environmental LLC in Oak Park, Ill., a company dedicated to rehabilitating wastewater treatment lagoons—whether that means modernizing them with new technologies to help them meet stricter effluent requirements, expanding their capacity or upgrading old or under-performing equipment. Galbreath-O'Leary believes lagoons are particularly important because so many small towns use them—and if these small-town lagoons are not brought up to modern standards, towns could inadvertently be introducing polluted water into the environment. After graduating cum laude from the University of Notre Dame, Galbreath-O'Leary moved on to Sheaffer & Roland, a civil engineering firm with expertise in wastewater reclamation and reuse systems, before founding Triplepoint, where he helped develop the company's NitrOx lagoon ammonia removal process and other lagoon-related technologies. He has authored an academic paper on the detrimental effects of copper-based toxins in America's watersheds, contributed to a nationwide push to clean up major bodies of water and tributary rivers and streams and written articles on pond aeration and turnover, windmill aeration, fish kills, and pond and lake odor.



Chris Lefebvre | Age 37
Wastewater Superintendent | City of Stevens Point

Leave it to Chris Lefebvre to turn a challenging wastewater situation into an opportunity for collaboration. Lefebvre, wastewater superintendent for the city of Stevens Point, Wis., recently worked with the Stevens Point Brewery to alleviate the wastewater issues associated with the brewery doubling its growth over the past six years (the increase in wastewater was causing energy and slug loading problems at the Stevens Point wastewater treatment facility). It was all in a day's work for Lefebvre, who "has taken strides beyond the normal work requirements," according to engineer Eric Lynne, who nominated him. A graduate of the University of Wisconsin-Stevens Point, Lefebvre is a Wisconsin Grade 4 Certified Wastewater Operator and a Certified Water Operator. He has worked for the city of Stevens Point since 2008, first as a wastewater operator, then as chief wastewater operator and now at his current position. Along with striving to reduce costs and energy use at the Stevens Point wastewater treatment facility, Lefebvre mentors new employees and interns to educate them about the WEF Operations Challenge competition, in which teams of operators and technicians compete in events designed to test their skills.



Robyn Mattison | Age 38
Public Works Director/City Engineer | City of Ketchum

The word "pioneer" is an apt description for Robyn Mattison, who was elected the first female public works director in the state of Idaho in 2013. As public works director and city engineer for the city of Ketchum, Idaho, Mattison oversees an annual budget of more than \$7 million and leads a team of 25 employees. Recent accomplishments include securing a \$500,000 loan for improvements to the city's water system; a \$14,900 grant for trail and signage improvements for public access to the Big Wood River; a \$50,000 grant for a transportation planning study; and, of course, a nomination to Idaho Business Review's "Accomplished Under 40" program for 2016. In 2011, Mattison prepared a Water Rescue Permit Application for the city of Ketchum and the Sun Valley Water & Sewer District to expand the use of Class A reuse water to approximately 800 acres, only the second city-wide permit to be issued in the state. Outside of work, Mattison enjoys camping and other outdoor activities with her husband and three daughters, ages 1, 3 and 4. "Robyn is always bringing new ideas and financing opportunities to the table and never says no to a new assignment," wrote Lisa Enourato, assistant to the city administrator and communications coordinator for the city of Ketchum, who nominated her.



Chris Milligan | Age 35
Senior Vice President of Operations | BlueInGreen LLC

Chris Milligan is "a multitasking individual with managerial, technology and leadership skills that are well above the standard," wrote a colleague at water and wastewater treatment technology company BlueInGreen LLC. A graduate of the University of Arkansas, where he earned a Bachelor of Science in civil engineering, and the University of Oklahoma, where he received a master's in civil engineering - water resources, Milligan is a certified professional engineer in nine states. He is also a licensed wastewater treatment plant operator and a member of AWWA, WEF, ASCE and the Emerging Leaders Alliance; he has presented at conferences for these organizations on topics including ultrafiltration and membrane biological reactor technology. After beginning his career at engineering firm Garver LLC, he started two businesses of his own—an engineering and environmental consulting firm and Aquagro Inc., a non-profit organization focused on advancing aquaponics. Aquagro is now working with the University of Arkansas and Heifer Intl. to support local food banks, as well as with local elementary schools to educate students on their food's origins. A recent addition to Milligan's impressive resume was his nomination as one of northwest Arkansas' "40 Under 40," according to the Northwest Arkansas Business Journal. Milligan has a wife, Jennifer, and three children.



Michael Norris | Age 29
Director of Technology | BCR Environmental Corp.

Michael Norris graduated summa cum laude with a master's in business administration from the University of South Florida, where he also earned his bachelor's degree in chemical engineering. He joined BCR Environmental Corp., an environmental solutions company focusing on biosolids and organic wastes, after college as an intern before working his way up to director of technology. At BCR, he optimizes new and existing products and process controls, performs market segmentation and financial analyses, and develops new technologies. He is co-author of two patents and was responsible for optimizing a chlorine dioxide generation process to reduce chemical use in wastewater treatment by 25%. Under his guidance, BCR was the first company to earn two U.S. Environmental Protection Agency national equivalencies (Process to Significantly Reduce Pathogens and Process to Further Reduce Pathogens). His most significant accomplishment has been implementing structured design of experiments, such as Taguchi Engineering, in an array of BCR's daily operations and core technologies—a systematic, holistic approach that has resulted in significant savings, a decrease in process variation and an increase in product and process robustness. Outside of work, Norris is an avid golfer; he started swinging a club at age 4 and played on the University of South Florida's golf team as a walk-on. He also raised a Seeing Eye golden retriever for one year, giving the dog up to be a blind man's long-term companion.



Kristin Rehg | Age 34
Senior Project Manager | City of Evanston Water Utility

Native Illinoisan and licensed professional engineer Kristin Rehg earned a Bachelor of Science in environmental engineering from Northwestern University and has remained in the Chicago area ever since. Last year, the Illinois section of ASCE named her its Young Government Civil Engineer of the Year. Rehg is an active member of the Illinois Section of AWWA and its Young Professionals Committee. As senior project manager for the City of Evanston (Ill.) Water Utility, she develops its operating budget, manages engineering studies and construction projects, coordinates with the Illinois Environmental Protection Agency (EPA) and conducts extensive public outreach, from working booths at community events to conducting tours of the city's water treatment plant. In addition to her many duties in Evanston, Rehg takes part in educational efforts for various water associations: Her Jan. 28, 2015, webinar for the Illinois Section of AWWA detailed the many steps that went into implementing Evanston's award-winning Water Conservation and Efficiency Plan; she also recruited panel members, originated and coordinated presentations and was primary presenter for a panel discussion on "Water Main Lining Benefits and Lessons Learned" at the Illinois Section of AWWA's WaterCon 2015 and the 2015 American Public Works Assn. Chicago Expo & Conference. Rehg can be found tweeting about—what else?—water and water-related issues at the Twitter handle @kristinh20.



Aaron Schindewolf | Age 35
Engineer V | San Jacinto River Authority

At the San Jacinto River Authority in the Woodlands, Texas, professional engineer Aaron Schindewolf helps develop, conserve and protect water resources across seven counties. He has 11 years of experience as a civil engineer and has spent the past five with the River Authority, for which he has worked on projects including wastewater and groundwater plants, water wells, collection lines, wastewater collection systems, and water distribution lines. His background also includes engineering design and construction management for water transmission line projects ranging in size from 24 to 72 in., water line distribution projects, water and wastewater facility projects and neighborhood street reconstruction projects, primarily in Houston. He is active in the engineering industry and served for four years as secretary and treasurer of the University of Houston's Engineering Alumni Assn. board of directors. He is a member of ASCE, the Texas Society of Professional Engineers, the National Society of Professional Engineers and AWWA.



Shane Vallen | Age 29
Product Engineer | Pentair

Mechanical engineering was an obvious career choice for Shane Vallen, whose childhood hobby was taking things apart and putting them back together to understand how they worked—including his first car, which he salvaged from a junkyard. After graduating with a Bachelor of Science in mechanical engineering from the University of Akron, Vallen joined Pentair, where he has worked for the past five years in new product development, sustaining engineering and the design of low-pressure sewer systems—an endeavor that involves sizing force mains; deciding how they run and where they connect in the system; and sizing pumps to fit the needs of systems ranging from three lift stations to a network of more than 4,000 individual grinder pump stations. Vallen's proudest achievement is designing and developing a new family of grinder pumps for Pentair. "The product started with a simple idea and turned into a whole new product line. It's so satisfying being able to come up with a concept and see it all the way through development," he said. In his off hours, he is an avid mountain biker, car enthusiast and woodworker whose goal is to build everything in his house.



Lauren Weinrich | Age 35
Environmental Scientist | American Water

Lauren Weinrich shines bright in the water industry. In fact, one might even say she glows. Weinrich, who holds a doctorate in environmental engineering from Drexel University, researches how to characterize organic matter in drinking water and potable reuse applications using fluorescence emission and excitation matrices, among other techniques. She was the project manager for a joint research project with Drexel University and the WaterReuse Research Foundation, applying an assay she adapted for seawater as a tool for identifying and reducing reverse osmosis membrane fouling in desalination. In addition to her research, Weinrich volunteers for a variety of organizations, including the Water Research Foundation and American Chemical Society, and has spoken at conferences for AWWA, WaterReuse and the New Jersey Water Environmental Assn. Eager to address drinking water issues—even at conferences where these issues do not traditionally appear—she has organized symposia for the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. Her expertise also is recognized abroad: She is co-president of the Young Technology Leader - Transatlantic Program of the German American Chamber of Commerce of the Midwest's Water Management delegation. In addition to all of the above, Weinrich somehow finds the time to mentor aspiring young scientists.