

#MWRDSUMMIT2020



Metropolitan Water  
Reclamation District  
of Greater Chicago

# 8th Annual SUSTAINABILITY SUMMIT

A VIRTUAL EVENT

**INTELLIGENT CONVERSATIONS FOR A BETTER ENVIRONMENT**

WEDNESDAY, OCTOBER 21 • 10 A.M. – NOON CDT





*Moderator and Presenter*  
**PROFILES**



## Dustin W. Gallagher

is an Associate Aquatic Biologist at the Metropolitan Water Reclamation District of Greater Chicago (MWRD). Mr. Gallagher currently manages water quality and biological sampling programs at the MWRD. Prior to this role, he

worked as a water quality and fisheries technician for the Illinois Natural History Survey at the Illinois River Biological Station, in Havana, Illinois. Mr. Gallagher has a BA in Biology from Monmouth College in Monmouth, Illinois.





## Dr. Austin Happel

joined the Daniel P. Haerther Center for Conservation and Research at Shedd Aquarium in 2019. His research focuses on how we can better conserve, manage and restore freshwater aquatic ecosystems to promote thriving and diverse fish communities. Dr. Happel's research focuses on several urban freshwater ecology initiatives and draws on his

Great Lakes region expertise. He is especially interested in investigating what benefits restoration activities, such as Shedd's floating island in the Chicago River's "Wild Mile," provide below the surface and how these benefits can be amplified in other areas. Dr. Happel also has an interest in understanding the role forest preserves have in structuring fish communities.





## Paul Jacobs

is an Assistant Civil Engineer at the MWRD. He served in the U.S. Army from 2006 to 2009. He left the military to study Civil Engineering at the University of Illinois at Chicago and graduated in 2014 with a B.S. in Civil Engineering. He spent a year doing construction management at O'Hare Airport before joining the MWRD in 2015. Mr. Jacobs works in the Stormwater Management

Section of the Engineering Department and assists with the development and construction of flood control projects throughout Cook County. He is also responsible for inspecting all major flood control dams and reservoirs for the MWRD. He is currently working on his master's degree in Public Works at the Illinois Institute of Technology.





## Dr. Theresa Johnston

is a Senior Environmental Soil Scientist at the MWRD. She received her Ph.D. in Environmental Toxicology from the University of Illinois at Urbana-Champaign. Dr. Johnston earned a B.S. and an M.S. in Natural Resources and Environmental Sciences with focuses on resource ecology, soil science and urban ecology at the University of

Illinois. She spent time at McGill University and the U.S. EPA Atlantic Ecology Division for post-doctoral research before teaching at Loyola University Chicago for three years. Dr. Johnston now works in biosolids research and outreach. Her research focus at the MWRD is application of biosolids and restoration of native soils using biosolids.





## **Klaudia Kuklinska**

joined the Energy Resources Center as an intern in October 2016 and transitioned into a Program Assistant and an Outreach Specialist in August 2018. Ms. Kuklinska works within the Rights-of-Way as Habitat Working Group by conducting research of mitigation strategies for pollinators affected by pesticides, mowing practices and habitat loss. She also investigates the best practices to aid in increasing pollinator lifespan. In addition, Ms. Kuklinska has collaborated with industry experts to develop a scorecard that will be used to assess the suitability of potential pollinator habitat. The development of the scorecard

included site visits with land managers and gathering feedback on priorities for best management practices. Ms. Kuklinska is also the Program Assistant and the Outreach Specialist to the ComEd IE Kits program. The IE Kits program has provided free energy efficiency products to more than 116,000 income-eligible households. Her primary responsibility is coordinating and collecting data from the Community Action Agencies. Furthermore, Ms. Kuklinska oversees the student interns working for the IE Kits program to get them acclimated with the energy efficiency programs.





## Aruch Poonsapaya

is the Maintenance Manager at the MWRD Calumet Water Reclamation Plant (WRP). He began his career at the MWRD in 1998 as an Assistant Civil Engineer at the Kirie WRP, spending most of his time in the Maintenance & Operations Department. During his tenure at the MWRD, Mr. Poonsapaya served in various roles, each with increasing duties and responsibilities. Besides working at the Kirie plant, he worked at the O'Brien, Calumet and Lemont WRPs, as well as the MWRD headquarters

in downtown Chicago. Prior to joining the MWRD, Mr. Poonsapaya worked as an engineer with the engineering consulting firm of Alvord, Burdick & Howson, which specializes in water and wastewater projects. Mr. Poonsapaya has a B.S. and an M.S. in Civil Engineering from the University of Illinois, Urbana-Champaign. He is a licensed Professional Engineer in the state of Illinois and has his Class 1 Wastewater Operator Certificate from the Illinois EPA.







## Ben Robel

started Vegetation Solutions, LLC in 2009. At the time, he had only two goats in his stable when he received a call from a neighbor requesting his help with grazing unwanted vegetation. Before he knew it, word of his unique grazing service spread, drawing the attention of the Milwaukee Journal Sentinel. "My phone hasn't stopped

ringing since," he said. Today, Vegetation Solutions, based in Richland Center, WI, has about 300 goats and sheep in its stable, grazing through cemeteries and parks, clearing out overgrowth at O'Hare International Airport, Downers Grove Park District, MWRD and even an island on Fox Lake in Lake County, among other places.





## MWRD Board President Kari K. Steele

was elected November 6, 2012, to her first term as a Commissioner at the MWRD and re-elected in 2018 for a second term. In January 2019 she was elected President of the Board of Commissioners. President Steele currently serves as the Chairman for the Public Information and

Education Committees and the State Legislation and Rules Committee, and she is Chairman of the MWRD Employees Credit Union Board of Directors. She also is the Vice Chairman of the Engineering and Monitoring & Research Committees.





## Dr. Guanglong Tian

is a Principal Environmental Scientist of the MWRD. He leads the MWRD's Biosolids Utilization & Soil Science Section in biosolids land application, biosolids and groundwater environmental monitoring, and agricultural nutrient loss reduction research at MWRD's Fulton County. Prior to joining the MWRD, Dr. Tian held several research scientist/adjunct professor positions in Soil Ecology and Environmental Sciences for over a decade

at International Institute of Tropical Agriculture in Nigeria, University of Georgia's Odum School of Ecology, and Illinois Institute of Technology. He was a subject editor of Soil Biology and Biochemistry and served on the Inter-Governmental Panel on Climate Change's Agricultural Soil CO<sub>2</sub> Expert Committee. Dr. Tian received his Ph.D. in Soil Biology and Fertility from Wageningen University & Research, Netherlands.





### **Welcome Remarks and Introductions**

President Kari K. Steele, MWRD Board of Commissioners (Moderator)

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### **Use of Biosolids and Compost for Landscape Management and Vegetation Maintenance**

Theresa Johnston, Ph.D., MWRD Senior Environmental Soil Scientist , and Guanglong Tian, Ph.D., MWRD Principal Environmental Scientist

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### **MWRD Stormwater Management Updates**

Paul Jacobs, MWRD Assistant Civil Engineer

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### **Preserving Monarch Butterflies: The Illinois Monarch Project Initiative**

Klaudia Kuklinska, Energy Resources Center, University of Illinois at Chicago

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### **Goats and Sheep as a Landscaping Option**

Aruch Poonsapaya, MWRD Maintenance Manager, and Ben Robel, Vegetation Solutions, LLC

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### **Fish in the Chicago Area Waterways**

Dustin Gallagher, MWRD Associate Aquatic Biologist, and Austin Happel, Shedd Aquarium Research Biologist

*MWRD Sustainable Landscaping and Biosolids Beneficial Reuse Awards*



### **Board of Commissioners**

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100 East Erie Street • Chicago, Illinois 60611-3154

Established in 1889, the MWRD is an award-winning, special purpose government agency responsible for wastewater treatment and stormwater management in Cook County, Illinois. Learn more at [mwrdd.org](http://mwrdd.org).