

WRF Webinar: Geochemical Considerations for Managed Aquifer Recharge Implementation in Potable Reuse

October 19th, 2021

Webcast Summary:

Overview:

Managed Aquifer Recharge (MAR) is the intentional recharge of water into a subsurface aquifer through a specially designed well or basin for future recovery or other environmental benefit. Potable reuse MAR involves treating wastewater effluent to national and state water quality standards using advanced water treatment (AWT) techniques as a source of recharge water. MAR can assist utilities with long-term water supply planning and will play an important role in future water reuse goals for water utilities worldwide.

This webcast will summarize the results of Geochemical Considerations for Managed Aquifer Recharge Implementation in Potable Reuse (project 5051). Presenters will describe a decision framework to evaluate potential physical and geochemical issues anticipated when applying potable reuse for MAR to basins or wells. Utility case studies will also demonstrate the supporting decision framework tool, which can help solve common geochemical and physical problems encountered during MAR implementation (e.g., mobilization of metals, clogging, clay conditioning)

Presenter Biography Information

Larry Schimmoller — Global Practice Lead for Water Reuse Jacobs

Larry Schimmoller is Jacob's Global Practice Lead for Water Reuse. He has extensive experience with the design, construction, and operation of potable and non-potable reuse projects throughout the country and abroad, and has served as the Principal Investigator on several water reuse research projects. Larry received a Bachelor's degree in civil engineering from Clarkson University and a Master's degree in environmental engineering from the University of Illinois at Urbana-Champaign.

BJ Lechler — California Professional Geologist and Certified Hydrogeologist Jacobs Engineering Group Inc.

BJ Lechler is a California Professional Geologist and Certified Hydrogeologist working from Jacobs Irvine, California office. His areas of expertise include regional groundwater resources and water quality investigations, including hydrogeologic conceptual model development, well siting, design, construction, and testing projects, characterizing anthropogenic degradation of groundwater quality, evaluation of impacted water supply wells, and contaminant source, nature and extent, and fate and transport evaluations. BJ has a BS in Geology from the University of Cincinnati and an MS in Hydrology from New Mexico Institute of Mining and Technology.

Mark Lucas, PG —Senior Hydrogeologist/Geochemist Jacobs Engineering Group Inc.

Mark Lucas has Worked for CH2M HILL/Jacobs since 1988 on over 50 managed aquifer recharge and ASR projects in NJ, DE, VA, NC, KS, MN, SC, FL, UT, and CA. His work focuses on reactions between recharge water, groundwater, and aquifer minerals. Mr. Lucas has published over 40 papers on reactions during MAR operations involving iron, manganese, arsenic, and dispersing clay minerals. He holds BS and MS degrees in Geology from Rutgers University.

Dani Davis — Water and Wastewater Process Engineer Jacobs

Dani Davis is a water and wastewater process engineer at Jacobs. She has a wide array of project experience including treatment design, hydraulic modeling, and data management and optimization of drinking water, wastewater, and water reuse treatment.

Harry Zhang, PhD, PE — Research Program Manager The Water Research Foundation

Dr. Harry Zhang, PE, serves as Research Program Manager on Integrated Water and Stormwater at The Water Research Foundation (WRF). He directs the Sustainable Integrated Water Management (SIWM) and Stormwater research portfolios. Harry is the Section Editor on Water Sustainability for Encyclopedia of Sustainability Science and Technology (Second Edition). He is a registered Professional Engineer. Harry holds a PhD in civil & environmental engineering (water resources) with minor research field in systems engineering from the University of Virginia.

WRF Webinar: WRF Technology Scan: Proactive Asset Management

October 28th, 2021

Webcast Summary:

Overview:

The Water Research Foundation's Technology Scan webcasts are designed to help you become a Utility of the Future! This webcast will focus on proactive asset management. PipeDiver Ultra is a long-distance, free-swimming condition assessment tool that measures the pipe wall thickness of metallic water pipelines using high-resolution ultrasonic technology. Building on the trusted PipeDiver condition assessment platform, PipeDiver Ultra inspects the pipeline while still in service, measuring wall thickness and assessing lining and ovality

Presenter Biography Information

Colin Dunn, PE — CEO and Founder Fend Incorporated

Colin started Fend because he saw great advances in sustainable infrastructure threatened by hackers who seek to render new technologies useless and put our modern livelihood at risk. Prior to Fend, Colin worked as a design engineer, manager, and consultant for 15 years, helping teams bring products to market and improve the resilience of our built environment. He is a Professional Engineer with degrees in mechanical engineering and business administration.

Eric Toffin, P.Eng. — Global Product Manager for Inline Wall Inspection Xylem, Inc.

Eric Toffin is the Global Product Manager for Inline Wall Inspection at Xylem, Inc. A Mechanical Engineer by training with 10+ years of technology development experience, he is now responsible for understanding client problems, providing deep product expertise, and making strategic product decisions to drive growth for Xylem's Inline Wall Inspection product lines, which are at the forefront of the water pipeline condition assessment industry. Based in

Toronto, Canada, Eric has been involved in condition assessment projects with water authorities throughout North America and Internationally.

Sydney Samples — Innovation Program Manager The Water Research Foundation

Sydney Samples serves as an Innovation Program Manager at WRF where she manages projects on nitrogen reduction and energy efficiency. Sydney received a bachelor's degree in Environmental Studies and Spanish and a minor in Political Science from Simpson College and a master's degree from the Middlebury Institute of International Studies at Monterey in International Environmental Policy. Her specialization is in Natural Resources Policy and Management