

**National Groundwater Week 2020**  
**Virtual Conference Sessions**  
**December 8-11, 2020**

Credits for Tuesday, December 8, 2020

<u>Workshop</u>	<u>Time</u>	<u>Instructor</u>	<u>Class Hours</u>	<u>CEUs in WA</u>
Family Business Succession in the Water Well Industry	9:00 am	Jesse Richardson	1	1
Groundwater Remediation Technologies	9:00 am	Peter Cartwright	1	1
Select the Right Pump for Your Job: Vertical Lineshaft and Submersible Turbines	9:00 am	Shane Wright	1	0.25
Marketing Your Business for the Future	10:15 am	Charles Kile	1	1
Hey, Hey PFAS Go Away! – The Forever Chemical That’s Finite	10:15 am	Stephen Hamilton	1	0.5
Basic Curves and Residential Sizing Examples	10:15 am	Scott O’Brien	1	0.25
Proper Pump Selection Minimizes Operation and Maintenance Costs	12:30 pm	David Kill	1	0.25
Pressure Hazards in the Groundwater Industry	12:30 pm	John Fowler	1	1
Realistic Budgeting to Reinvest in Your Business	12:30 pm	Jeffrey Williams	1	1
Smarter and Faster – Tools to Manage Your Day-to-Day Operations	1:45 pm	Matt Hendrickson	1	1
Friction Loss Defined and Basic Friction Loss Calculations	1:45 pm	Scott Tystad	1	0.25
How COVID-19 Affected Our Business Operations: Lessons Learned	1:45 pm	Marie Maher	1.25	1.25
Groundwater and Energy: Produced Water Reuse and Protection of Groundwater	10:00 am	Mike Hightower	0.33	0.33
Groundwater and energy: Groundwater Wells as Mini Pump Storage Facilities – Solving Multiple Problems Simultaneously	10:00 am	Lon House	0.33	0.33

Groundwater and Energy: Geothermal Case Study – Blatchford DESS Energy Center #1	10:00 am	Mario Brunet	0.33	0.33
Groundwater Remediation: Promoting Combine Biological- Chemical Reactions for In Situ Groundwater Remediation	10:00 am	Kevin Finneran	0.33	0.33
Groundwater Remediation: Removal of Hardness from Water Using Moringa Oleifera Seeds Extract Coupled with An Electrocoagulation Process	10:00 am	Daniela Partida Joya	0.33	0.33
Groundwater Remediation: Polyethylene microplastics degradation through advanced oxidation processes	10:00 am	Daniel Medina Orendain	0.33	0.33
Groundwater Remediation: Better Access to Contaminants: the Application of Targeted Injection with Slurries	10:00 am	Drew Baird	0.33	0.33
Groundwater Remediation: There's a Method to this Madness: Dynamic Groundwater Recirculation (DGR)	10:00 am	Marc Killingstad	0.33	0.33
Groundwater Remediation: PFAS Site Characterization: Why we Need to Rethink Our Approach to Remedial Investigations	10:00 am	Brian Hoyer	0.33	0.33
Groundwater Remediation: New Perspectives on Horizontal Wells for Assessment and Remediation	10:00 am	Erik Piatt	0.33	0.33
Groundwater Remediation: From Auto Salvage to animal Care Center: MTBE Remediation Leads to Site Redevelopment	10:00 am	Howard Nichols	0.33	0.33
Groundwater Remediation: Harnessing the Power of Stannous for Trace Metal Remediation	10:00 am	Vladimir Dozortsev	0.33	0.33
Groundwater Remediation: Percarbonate decomposition using iron for organic contaminants degradation from groundwater	10:00 am	Lenor Granados	0.33	0.33
Managed Aquifer Recharge: Introduction to Managed Aquifer Recharge: Principles and Industry Resources	10:00 am	Timothy Parker	0.33	0.33
Managed Aquifer Recharge: Aquifer Storage Recovery (ASR): How to	10:00 am	R David Pyne	0.33	0.33

Successfully Store Water Deep Underground				
Managed Aquifer Recharge: Provo Aquifer Storage and Recovery – From Planning to Pilot	10:00 am	R Jeffrey Davis	0.33	0.33
Managed Aquifer Recharge: Operations and Maintenance of Water Conserv II Ensures Sustainability of MAR and Irrigation in Central Florida	10:00 am	Jason House	0.33	0.33
Managed Aquifer Recharge: Multiple Advantages Realized with Managed Aquifer Recharge in Massachusetts	10:00 am	Robert Schreiber	0.33	0.33
Managed Aquifer Recharge: Washington State Managed Aquifer Recharge Regulation	10:00 am	Lyn Doremus	0.33	0.33
Managed Aquifer Recharge: Evaluation of MAR Potential in the Edmonton-Calgary Corridor, Alberta, Canada	10:00 am	Kevin Parks	0.33	0.33
Managed Aquifer Recharge: Assessing and Monitoring Groundwater Quality Effects from Applying Managed Aquifer Recharge to Agriculture Fields	10:00	Michael Milczarek	0.33	0.33
Managed Aquifer Recharge: Success Criteria for Aquifer Recharge in the Pacific Northwest, an Example from the Hanford Site	10:00 am	Sean Culkin	0.33	0.33
Managed Aquifer Recharge: Integrated Vadose Zone Characterization Methods to Optimize Managed Aquifer Recharge Site Selection	10:00 am	Michael Milczarek	0.33	0.33
Managed Aquifer Recharge: Bringing Injection Wells to Life, A Case Study	10:00 am	Everett Ferguson	0.33	0.33
Managed Aquifer Recharge: Design of Efficient Wells for MAR	10:00 am	Thom Hanna	0.33	0.33
Geophysics for Groundwater Model Development and Monitoring: Mapping Aquifers and Water Quality Using a Towed Cart Time-Domain Electromagnetic Induction System	1:00 pm	John Jansen	0.33	0.33
Geophysics for Groundwater Model Development and Monitoring:	1:00 pm	Kakaba Madi	0.33	0.33

Neotectonics and electrical resistivity to explore for groundwater in the Eastern Cape Province, South Africa				
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Credits for Wednesday, December 9, 2020

<u>Workshop</u>	<u>Time</u>	<u>Instructor</u>	<u>Class Hours</u>	<u>CEU hours for WA</u>
Power Quality and Pumps – Is Your Power Killing Your Pumps?	9:00 am	Alan Bixler	1	0.25
Asset Management for Sustainable Wells: Not Just for Utility Water Supply	9:00 am	Stuart Smith	1	1
Helping Well Owners Understand their Risks and Well Vulnerability	9:00 am	Steve Wilson	1	1
NPSH and Avoiding Cavitation	10:15 am	Dan Featherstone	1	0.25
Federal Legislative Issues Affecting the Water Well Industry	10:15 am	Margaret Martens and Jeff More	1	1
Proper Drill Site Assessment, Preparation and Execution	10:15 am	Richard Thron & Richard Layman	1	1
Things You Didn't Know You Could do with a Variable Frequency Drive	12:30 pm	Tony Eisinger	1	0.25
Groundwater Guardians: Spreading the Word to Protect the Resource	12:30 pm	Sara Brock	1	1
Predictive Maintenance of Heavy Equipment	12:30 pm	Ray Kranzusch	1	1
Liability and Technical Considerations for GHX Design & Installation for GSHP Systems	1:45 pm	Terry Proffer	1	1
Installing All Types of Pump Controls at the Well	1:45 pm	Stephen Anderson	1	0.25
Water Well Inspections for Real Estate Transactions in Your State	1:45 pm	Gary Hix	1	1
Groundwater Modeling: Building a Better Mousetrap – The Evolution of MODALL	10:00 AM	Marc Killingstad	0.33	0.33
Groundwater Modeling: Groundwater Level Impacts in Philadelphia due to Green Stormwater Infrastructure Infiltration and Climate Change	10:00 am	Mark Maimone	0.33	0.33
Groundwater Modeling: A Practical Model for Contaminant Transport in Highly Heterogeneous Media and Back-Diffusion	10:00 am	Daniel Burnell	0.33	0.33

Groundwater modeling: Flux-Informed Optimization – The Next Generation of Applied Modeling	10:00 am	Marc Killingstad	0.33	0.33
Extended Learning Session: Biology and Chemistry of Insitu Activated Carbon during Remediation Applications	10:00 am	Kevin Finneran	1.5	1.5
Extended Learning: New Recovery Wellfield Due-diligence and Design in Southern Arizona	10:00 am	Gary Burchard	1.5	1.5
Extended Learning Session: Improving the Value of Legacy Data Sets Using Modern Methods	10:00 am	Robert Stuetzle & Mark Higgins	1.5	1.5
The Holy Grail – In search of ASR Well Development Optimization	2:30 pm	Gary Gin	1	1
Sustainable Groundwater Management: Examining How Our Metrics and Modeling Approaches Support Our Decision-Making	2:30 pm	Gretchen Miller	1	1
Drones plus Geophysics: A Better Platform for Better Site Characterization	2:30	John Jansen & Ron Bell	1	1

Thursday, December 10, 2020

<u>Workshop</u>	<u>Time</u>	<u>Instructor</u>	<u>Class Hours</u>	<u>CEU hours for WA</u>
Single Phase Motor and Control Testing	9:00 am	Scott Tystad	1	0.25
Showcasing Your Business Online	9:00 am	Amanda Holloway	1	1
Well Cleaning Chemicals: Selection, Application and Treatment Process	9:00 am	Eric Duderstadt	1	1
Water Well Cleaning and Maintenance – Maintaining Quantity and Quality	10:15 am	Neil Mansuy	1	1
Solar Groundwater Pumping Systems	10:15 am	Tom Drew	1	1
How to Read a Profit and Loss Statement: More than Just Numbers	10:15 am	Becca Calkins	1	1
Profiting from Adding Water Treatment and Service Operations	1:45 pm	Clifford Fasnacht	1	0.5
Motor Mysteries Solved	1:45 pm	Tom Stephan	1	0.25
Managing Remote Employees	1:45 pm	Thad Plumley and Marie Maher	1.25	1.25
Sustainability and Planning: the environmental implication of the	10:00 am	Solomon Isiorho	0.33	0.33

procurement of clean water in developing countries				
Sustainability and Planning: The impact of land-use for urbanization on Groundwater YANGON	10:00 am	Myint Thein	0.33	0.33
Sustainability and Planning: Flooding Impacts to Groundwater	10:00 am	Charles Job	0.33	0.33
PFAS: Development of a Forensics Based Approach to Evaluation Impacts of PFAS Contamination in the Environment	10:00 am	Charles Neslund	0.33	0.33
PFAS: Assessment and Responses to Per-and Polyfluoroalkyl Substances in Private Wells in Southeastern New Mexico	10:00 am	Rose Galbraith	0.33	0.33
PFAS: Coupling ESS and Numerical Models to Maximize Mass Flux Reduction and Certainty of Performance	10:00 am	Galen Kenoyer	0.33	0.33
PFAS: Multiple Treatment Systems Combine to Enhance Removal of PFAS from Impacted Water at Australian Site	10:00 am	Dale Wynkoop	0.33	0.33
PFAS: Source Removal Combined with Drinking Water Treatment on a PFAS Contaminated Groundwater	10:00 am	Patrick McKeown	0.33	0.33
PFAS: A Method for the Determination of Total Organic Fluorine and Its Correlation with PFAS Analysis	10:00 am	Charles Neslund	0.33	0.33
PFAS: Novel adsorption media for PFAS removal from groundwater	10:00 am	James Olsta	0.33	0.33
Groundwater monitoring: Leveraging an Evolving LNAPL Regulatory Framework to Facilitate Closure at a hazardous Waste Site	1:00 pm	Brent Aigler	0.33	0.33
Groundwater Monitoring: Adaptive Management of Land Subsidence by Monitoring at High Temporal Frequencies in the Chino Basin, CA	1:00 pm	Mike Blazevic	0.33	0.33
Groundwater Monitoring: The Hydrology Program at the Waste Isolation Pilot Plant: Groundwater Monitoring and Investigation	1:00 pm	Amelia Hayes	0.33	0.33
Groundwater Monitoring: Anomalous Declines in Groundwater Radon and Aquifer Transmissivity	1:00 pm	Ming Ching Kuo	0.33	0.33

Precursory to 2008 Mw 5.4 Earthquake				
Beyond PFAS: Other Contaminants of Emerging Concern – TCE, DX & PFAS: Tackling contaminants at the Tucson International Airport Remediation Project	1:40 pm	Jeff Biggs	0.33	0.33
Beyond PFAS: Other Contaminants of Emerging Concern – Pesticides and Pesticide Degradates in Groundwater from Public Supply Wells across the United States	1:40 pm	Laura Bexfield	0.33	0.33
Beyond PFAS: Other Contaminants of Emerging Concern – Transport of Polystyrene and Polyethylene Fine Micro & Nano-Plastic Granules in Global Till at Esmond, IL Well Field	1:40	Alyssa Graveline	0.33	0.33
Beyond PFAS: Other Contaminants of Emerging Concern – synthetic Media System Cleans Trichloroethylene Impacted Soil Vapor and Groundwater	1:40 pm	Steven Woodard	0.33	0.33

Friday, December 11, 2020

<u>Workshop</u>	<u>Time</u>	<u>Instructor</u>	<u>Class Hours</u>	<u>CEU hours for WA</u>
Improving Effectiveness (OEE) for Single Irrigation System or Across All Your Systems Using Cloud Technology	8:00 am	Brad Hicks & John Burns	1	0.25
EcoVoices Mimedately: Community Service and Outreach through Theatrical Energy!	8:00 am	Richard Shope	1	0.5
Federal Business Income Taxation Update	8:00 am	Melissa Dunkle	1	1
How to Upgrade Your Irrigation Pump Motor Control to Reduce Downtime	9:15 am	Brad Hicks and John Burns	1	0.25
Grouting and Drilling Jobs that Didn't follow the Book	9:15 am	Jeff Blinn	1	1
Groundwater is Captivating: Engaging Grades 3-12	9:15 am	Sara Brock	1	1
Hydrogeologic Classification System for Water-Well Boreholes	10:30 am	Thom Hanna	1	1

Remote Monitoring for Irrigation Systems that Continue to Run when Communication Links are Lost	10:30 am	Brad Hicks and John Burns	1	0.25
State and Local Tax – Updates, Pitfalls, and Opportunities	10:30 am	Joe Popp	1	1
Peristaltic Chemical Feed Metering Pumps: Installation and Maintenance	12:00 pm	Pat Bell	1	0.5
Five Ways to Build a Workplace Employees Love	12:00 pm	Becca Calkins	1	1
Large Wells/ Small Spaces: The Challenges of Urban Drilling	12:00 pm	Roger Renner	1	1

*Tara Roberts*

November 30, 2020

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Tara Roberts, Well Administrator

Date