



ANNUAL FORUM

2021 Virtual Conference Agenda (Updated 9.14.21)

Monday, September 27, 2021 (Central Time)

<p>9 am</p>	<p>Morning Grind Networking Events Grab a coffee and video chat with fellow-attendees in topics-driven discussions.</p> <ul style="list-style-type: none"> • Source Water Protection • Geothermal Energy 	
<p>10:00 am – 12 pm</p>	<p>Source Water Protection Workshop (Part 1)</p> <p><i>“Welcome to Utah and the West: Source Water Protection and the Farm Bill”</i> Emily Fife, State Conservationist, NRCS-UT Astor Boozer, Regional Conservationist, NRCS West</p> <p><i>“Growing and Enhancing Conservation Planning Efforts with Partners for Source Water Protection in Vermont”</i> Joe Buford, State Resource Conservationist, USDA-NRCS Vermont</p> <p><i>“Boots on the Ground: Implementing SWP working with NRCS, State & Local Partners”</i> Mark Wettlaufer, Planning Supervisor, Source Water Protection Unit, MN Department of Health</p>	<p>RBDMS Training (Class VI)</p> <p>RBDMS (Risk Based Data Management System) is a suite of integrated software products that assists state agencies in the regulating, oversight and management of oil, gas and Underground Injection Control (UIC) facilities and activities. It was developed by GWPC and members states, in partnership with the U.S. Department of Energy.</p> <ul style="list-style-type: none"> • Introduction • Demonstration of RBDMS Class VI pilot • Group discussion on needed features • Discussion of state Class VI data needs <p>RBDMS Orphan and Abandoned Well/Facility Module: Prioritization, Plugging, Remediation, Tracking and Reporting</p>

	<p><i>“Funding Integration Planning Tool: Set the Stage for Source Water Protection Success”</i> Kara Goodwin, EPA Source Water Protection Team</p> <p><i>“DWMAPS: A Tool for Source Water Protection”</i> Terrell Tiendrebeogo, EPA Source Water Protection Team</p>	<ul style="list-style-type: none"> • Introduction and Overview of the Module • Provide States the data management tool to help manage their orphan well program • Modular approach, tools include <ul style="list-style-type: none"> ○ Prioritization ○ Plugging: Tracking of plugging, closure/cleanup, remediation and reclamation activities including: percent complete, completed projects, financial, cost expenditures, ○ Dashboards ○ GIS interface ○ Data collection ○ Reporting • Demonstration of pilot prioritization module (high level) <ul style="list-style-type: none"> ○ Discussion of state needs
12 pm – 12:30 pm	Break	
12:30 pm – 2 pm	<p>Source Water Protection Workshop (Part 2)</p> <p><i>“Benefits and Challenges of a Regulatory Source Water Protection Program”</i> Deidre Beck and Melissa Noble, Division of Drinking Water, Utah Department of Environmental Quality</p> <p><i>“Planning for Source Water Protection: Calculating Load Reductions to Address Impairments to Groundwater to Leverage CWA Funding”</i> Tatiana Davila, Hydrogeologist Wellhead and Source Water Protection Coordinator, Nebraska Department of Environment and Energy</p>	<p>RBDMS Training (Introduction: WaterSTAR Overview)</p> <p><i>Introduction: WaterStar Overview</i></p> <ul style="list-style-type: none"> • Demonstration of latest and proposed WaterSTAR features from New Mexico, Wyoming, Alabama and Nebraska • WaterSTAR use in Oil and Gas and Class VI programs • Group/panel discussion of additional features needed for WaterSTAR

	<i>Questions/Discussion: Next Steps & Action Items</i>	
2 pm – 2:30 pm	Break	
2:30 pm – 4 pm	<p>Opening General Session: Federal Perspective</p> <ul style="list-style-type: none"> • Welcome and Conference Overview Jon Kenning, Montana DEQ, GWPC Board President • Updates from Federal Partners Jennifer McLain, Ph.D., Director, Office of Ground Water & Drinking Water, U.S. Environmental Protection Agency Jennifer Wilcox, Ph.D., Principal Deputy Assistant Secretary (Acting Assistant Secretary) for Fossil Energy and Carbon Management, U.S. Department of Energy 	

Tuesday, September 28, 2021 (Central Time)

9 am	<p>Morning Grind Networking Events <i>Grab a coffee and video chat with fellow-attendees in topics-driven discussions.</i></p> <ul style="list-style-type: none"> • Class II Underground Injection Control (class II exempt fluids) • Class I Underground Injection Control 	
10 am – 11:30 am	<p>General Session: Utah’s Pioneering Efforts</p> <p><i>“Utah’s Geoheritage – From the Iconic to the Unsung”</i> R. William (Bill) Keach II, State Geologist, Director Utah Geological Survey</p> <p><i>“Advancing Clean Water in Utah: Current Water Quality Issues and Initiatives”</i> Erica Gaddis, PhD, Director, Division of Water Quality, Utah Department of Environmental Quality</p>	

	<p><i>"Data Innovations and Accomplishments in Utah"</i> John Baza, Director, Utah Division of Oil, Gas, and Mining</p>
<p>12 pm – 1:30 pm</p>	<p>General Session: The Science of Functional Equivalence</p> <p><i>Analyzing the factors provided by Congress and US EPA to evaluate where and when indirect discharges may require NPDES permits or other action.</i></p> <p>Moderator: Shellie Chard, Oklahoma DEQ Water Quality Division Director, GWPC Board of Directors, WEF Board of Trustees</p> <p><i>"National Ground Water Association Activities in Response to the Maui Supreme Court Decision"</i> William Alley, Ph.D., National Groundwater Association</p> <p>David R. Wunsch, Ph.D., PG, Delaware Geological Survey</p>
<p>1:30 pm – 2 pm</p>	<p>Break</p>
<p>2 pm – 3:30 pm</p>	<p>General Session: Emerging Issues & Trends</p> <p><i>"Toward Net-Zero: Securing the Nation's Energy Supply through Underground Energy Storage and Utilization"</i> Richard Schultz, Ph.D. Orion Geomechanics LLC</p> <p><i>Lugging Away: The Regrow Act and its Implementation</i> Stratton Edwards Capitol Hill Consulting Group</p> <p>Walt Marlowe Water Environment Federation (Invited)</p>
<p>3:30 pm – 4 pm</p>	<p>Break</p>

4 pm	<p>Conference Happy Hour / Networking Activity More Details Coming Soon!</p>
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Wednesday, September 29, 2021 (Central Time)

9 am	<p>Morning Grind Networking Events Grab a coffee and video chat with fellow-attendees in topics-driven discussions.</p> <ul style="list-style-type: none"> • Class V Underground Injection Control / Stormwater / Enhanced Aquifer Recharge • Class VI Underground Injection Control / Carbon Capture & Underground Storage 	
10 am – 11:30 am	<p>Class VI & CCUS</p> <p><i>“Hydrogen and Energy 101: Role of CCUS”</i> Talib Syed TSA, Inc.</p> <p><i>“Carbon Capture, Utilization, and Storage (CCUS): Insights, Opportunities, and Challenges”</i> Tom Tomastik ALL Consulting LLC</p> <p><i>“Spatial-Temporal Risk Mapping at a Geologic Carbon Sequestration Site”</i> Brandon Schwartz Penn State University</p> <p><i>“Acid Gas Injection & Carbon Capture and Storage Well Design Similarities”</i> Troy Gillen WSP USA</p> <p><i>“Overview of 3D-4D Seismic and its Application to CO2 Sequestration”</i> Finn Michelsen Collier Consulting</p>	<p>ASR/MAR</p> <p><i>“Rapid Mapping of Aquifers, Confining Units, and Potential MAR Sites Using a Towed Cart Time-Domain Electromagnetic Induction System”</i> Kristen Marberry Collier Consulting</p> <p><i>“Provo City Aquifer Storage & Recovery Project”</i> Jeff Davis Barr Engineering</p> <p><i>“Enhanced Aquifer Recharge of Stormwater in the United States: State of the Science Review”</i> Thomas Johnson US EPA, Integrated Environmental Research Branch</p>

11:30 am – 12 pm	Break		
12 pm – 1:30 pm	<p>NRAP Tools for Geologic Carbon Storage Risk-Based Decision Making</p> <p><i>Welcome</i> Mike Nickolaus GWPC</p> <p><i>Overview of the National Risk Assessment Partnership and NRAP Phase II Products</i> Robert Dilmore NETL</p> <p><i>NRAP Open-source Integrated Assessment Model And Relevant Application</i> Veronika Vasytkivska NETL</p> <p><i>Interface and Workflow Design for Geological Carbon Storage Modeling, Simulation – GCSRiskman Prototype</i> Mark Brandyberry Illinois RocStar</p> <p><i>Assessing Geomechanical Risks at GCS Sites Using the State of Stress Assessment Tool</i> Jeff Burghardt PNNL</p>	<p>ASR / MAR – Utah Spotlight</p> <p><i>“Water Right Permits for Aquifer Recharge and Recovery in Utah”</i> David Jones, PE Utah Division of Water Rights</p> <p><i>“Aquifer Storage & Recovery Regulation Under the Utah Underground Injection Control Program: Current Permits In Utah & Application Process”</i> Drummond Earley, III, Ph.D., PG Utah Division of Water Quality</p> <p><i>“Utah Drinking Water Review of Aquifer Storage & Recovery (ASR) Projects”</i> Nagendra Dev, Ph.D., PE Utah Division of Drinking Water</p>	
1:40 pm – 2 pm	Session Break		<p>1:30 pm – 2 pm</p> <p>Session Break</p>
2 pm – 4 pm	<p>NRAP Tools for Geologic Carbon Storage Risk-Based Decision Making</p> <p><i>Short Term Seismic Forecasting – A Tool to Assess Seismicity During Injection Operations And RiskCat</i></p>	<p>2 pm – 3:30 pm</p>	<p>Groundwater Data Collection & Management</p> <p><i>“Status and Accomplishments of USGS National Ground-Water Monitoring Network (2015-2021)”</i> Daryll Pope US Geological Survey</p>

	<p>Corinne Layland-Bachmann LBNL and</p> <p><i>Designs for Risk Evaluation and Monitoring and Example Coupling with Integration with NRAP-Open-IAM</i></p> <p>Alex Hannah PNNL</p> <p><i>Optimal Design of Microseismic Monitoring Network</i></p> <p>Lianjie Huang LANL</p> <p><i>Discussion</i></p>		<p><i>“Assessment of Water Resources in Alabama Using Data Storage and Geospatial Tools For Management and Policy Decisions”</i></p> <p>Greg Guthrie Geological Survey of Alabama</p> <p><i>“Assessment of Per- and Polyfluoroalkyl Substances in Groundwater across New Mexico”</i></p> <p>Kimberly Beisner US Geological Survey</p>
4 pm	<p>Annual Forum Happy Hour – Wind Down</p> <p>Engage with fellow attendees as we wrap up a successful 2021 Annual Forum with our closing Happy Hour networking event.</p>		