



# ANNUAL FORUM

## 2021 Virtual Conference Agenda (Updated 9.23.21)

### Monday, September 27, 2021 (Central Time)

<p>9 am</p>	<p><b>Morning Grind Networking Events</b> Grab a coffee and video chat with fellow-attendees in topics-driven discussions.</p> <ul style="list-style-type: none"> <li>• <b>Source Water Protection</b> Moderated By: Tara Gross, GWPC</li> <li>• <b>Geothermal Energy</b> Moderated By: Mark Layne, GWPC</li> </ul>	
<p>10:00 am – 12 pm</p>	<p><b>Source Water Protection Workshop (Part 1)</b> Moderated By: Christene Jennings, Marketing for Change Co.</p> <p><b><i>“Welcome to Utah and the West: Source Water Protection and the Farm Bill”</i></b> Emily Fife, State Conservationist, NRCS-UT Astor Boozer, Regional Conservationist, NRCS West</p> <p><b><i>“Growing and Enhancing Conservation Planning Efforts with Partners for Source Water Protection in Vermont”</i></b> Joe Buford, State Resource Conservationist, USDA-NRCS Vermont</p>	<p><b>RBDMS Training (Class VI)</b> Moderated By: Paul Jehn, GWPC</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"> <li>• Introduction</li> <li>• Demonstration of RBDMS Class VI pilot</li> <li>• Group discussion on needed features</li> <li>• Discussion of state Class VI data needs</li> </ul>

	<p><b><i>“Boots on the Ground: Implementing SWP working with NRCS, State &amp; Local Partners”</i></b>  Mark Wettlaufer, Planning Supervisor, Source Water Protection Unit, MN Department of Health</p> <p><b><i>“Funding Integration Planning Tool: Set the Stage for Source Water Protection Success”</i></b>  Kara Goodwin, EPA Source Water Protection Team</p> <p><b><i>“DWMAPS: A Tool for Source Water Protection”</i></b>  Terrell Tiendrebeogo, EPA Source Water Protection Team</p>	<p><b>RBDMS Orphan and Abandoned Well/Facility Module: Prioritization, Plugging, Remediation, Tracking and Reporting</b></p> <ul style="list-style-type: none"> <li>• Introduction and Overview of the Module</li> <li>• Provide States the data management tool to help manage their orphan well program</li> <li>• Modular approach, tools include <ul style="list-style-type: none"> <li>○ Prioritization</li> <li>○ Plugging: Tracking of plugging, closure/cleanup, remediation and reclamation activities including: percent complete, completed projects, financial, cost expenditures,</li> <li>○ Dashboards</li> <li>○ GIS interface</li> <li>○ Data collection</li> <li>○ Reporting</li> </ul> </li> <li>• Demonstration of pilot prioritization module (high level) <ul style="list-style-type: none"> <li>○ Discussion of state needs</li> </ul> </li> </ul>
<p>12 pm – 12:30 pm</p>	<p><b>Break</b></p>	
<p>12:30 pm – 2 pm</p>	<p><b>Source Water Protection Workshop (Part 2)</b>  Moderated By: Christene Jennings, Marketing for Change Co.</p> <p><b><i>“Benefits and Challenges of a Regulatory Source Water Protection Program”</i></b>  Deidre Beck and Melissa Noble, Division of Drinking Water, Utah Department of Environmental Quality</p>	<p><b>RBDMS Training (Introduction: WaterSTAR Overview)</b>  Moderated By: Paul Jehn, GWPC</p> <p><b><i>Introduction: WaterStar Overview</i></b></p> <ul style="list-style-type: none"> <li>• Demonstration of latest and proposed WaterSTAR features from New Mexico, Wyoming, Alabama and Nebraska</li> <li>• WaterSTAR use in Oil and Gas and Class VI programs</li> </ul>

	<p><b><i>“Planning for Source Water Protection: Calculating Load Reductions to Address Impairments to Groundwater to Leverage CWA Funding”</i></b></p> <p>Tatiana Davila, Hydrogeologist Wellhead and Source Water Protection Coordinator, Nebraska Department of Environment and Energy</p> <p><b><i>Questions/Discussion: Next Steps &amp; Action Items</i></b></p>	<ul style="list-style-type: none"> <li>• Group/panel discussion of additional features needed for WaterSTAR</li> </ul>
2 pm – 2:30 pm	<b>Break</b>	
2:30 pm – 4 pm	<p><b>Opening General Session: Federal Perspective</b></p> <ul style="list-style-type: none"> <li>• <b>Welcome and Conference Overview</b> Jon Kenning, Montana DEQ, GWPC Board President</li> <li>• <b>Updates from Federal Partners</b> Jennifer McLain, Ph.D., Director, Office of Ground Water &amp; 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</li> </ul>	

## Tuesday, September 28, 2021 (Central Time)

9 am	<p><b>Morning Grind Networking Events</b></p> <p><i>Grab a coffee and video chat with fellow-attendees in topics-driven discussions.</i></p> <ul style="list-style-type: none"> <li>• <b>Class II Underground Injection Control</b> <i>Moderated By: Mike Nickolaus, GWPC</i></li> <li>• <b>Class I Underground Injection Control</b> <i>Moderated By: Steve Musick, GWPC</i></li> </ul>	
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<p>10 am – 11:30 am</p>	<p><b>General Session: Utah’s Pioneering Efforts</b>  Moderated By: John Baza, Utah Division of Oil, Gas &amp; Mining</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><b>General Session: The Science of Functional Equivalence</b>  Moderated By: Shellie Chard, Oklahoma DEQ Water Quality Division Director, GWPC Board of Directors, WEF Board of Trustees</p> <p>Analyzing the factors provided by Congress and US EPA to evaluate where and when indirect discharges may require NPDES permits or other action.</p> <p><i>“Permits for Discharges of Pollutants to Groundwater”</i>  Kenneth Warren, Warren Environmental Council, LLC</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><i>“State Geological Surveys Can Provide Information to Assist in Characterizing “Functional Equivalence””</i>  David R. Wunsch, Ph.D., PG, Delaware Geological Survey</p>
<p>1:30 pm – 2 pm</p>	<p><b>Break</b></p>

2 pm – 3:30 pm	<p><b>General Session: Emerging Issues &amp; Trends</b>  Moderated By: Dan Yates, GWPC</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>“Plugging Away: The Regrow Act and its Implementation”</i>  Stratton Edwards   Capitol Hill Consulting Group</p> <p><i>“Water Environment Federation: Providing Technical Education &amp; Training for Water Quality Professionals”</i>  Walt Marlowe   Water Environment Federation</p>
3:30 pm – 4 pm	<p><b>Break</b></p>
4 pm	<p><b>Conference Networking Activity: Virtual Classic Rewind Quiz Show</b></p> <p>Enter the "Way-Back" machine and throwback to earlier years with Virtual Classic Rewind Quiz Show! Revisit your favorite childhood cartoons, commercials - even breakfast cereals along with fellow attendees - in this fun, interactive game show! Full of nostalgic favorites from the 70s, 80s, and 90s, this game show/networking activity is the perfect trip down memory lane for all generations.</p> <p>Space is limited! <b>Prizes given to top scorers so join us and be sure to participate!</b></p>

## Wednesday, September 29, 2021 (Central Time)

<p>9 am</p>	<p><b>Morning Grind Networking Events</b>  <i>Grab a coffee and video chat with fellow-attendees in topics-driven discussions.</i></p> <ul style="list-style-type: none"> <li>• <b>Class V Underground Injection Control / Stormwater / Enhanced Aquifer Recharge</b>  <i>Moderated By: Dan Yates, GWPC</i></li> <li>• <b>Class VI Underground Injection Control / Carbon Capture &amp; Underground Storage</b>  <i>Moderated By: Mike Nickolaus, GWPC</i></li> </ul>	
<p>10 am – 11:30 am</p>	<p><b>Class VI &amp; CCUS</b>  <i>Moderated By: Lily Barkau, Wyoming Water Quality Division</i></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 &amp; Carbon Capture and Storage Well Design Similarities”</i>            Troy Gillen   WSP USA</p>	<p><b>ASR/MAR</b>  <i>Moderated By: Chi Ho Sham, ERG</i></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 &amp; 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>

	<p><i>“Overview of 3D-4D Seismic and its Application to CO2 Sequestration”</i> Finn Michelsen   Collier Consulting</p>	
<p>11:30 am – 12 pm</p>	<p><b>Break</b></p>	
<p>12 pm – 1:30 pm</p>	<p><b>NRAP Tools for Geologic Carbon Storage Risk-Based Decision Making</b></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 Vasykivska   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><b>ASR / MAR – Utah Spotlight</b> Moderated By: Karen Feret, US EPA, Office of Ground Water &amp; Drinking Water</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 &amp; Recovery Regulation Under the Utah Underground Injection Control Program: Current Permits In Utah &amp; Application Process”</i> Drummond Earley, III, Ph.D., PG   Utah Division of Water Quality</p> <p><i>“Utah Drinking Water Review of Aquifer Storage &amp; Recovery (ASR) Projects”</i> Nagendra Dev, Ph.D., PE   Utah Division of Drinking Water</p>

1:40 pm – 2 pm	<p><b>Session Break</b></p>	1:30 pm – 2 pm	<p><b>Session Break</b></p>		
2 pm – 4 pm	<p><b>NRAP Tools for Geologic Carbon Storage Risk-Based Decision Making</b></p> <p><i>Short Term Seismic Forecasting – A Tool to Assess Seismicity During Injection Operations And RiskCat</i> Corinne Layland-Bachmann   LBNL and</p> <p><i>Designs for Risk Evaluation and Monitoring and Example Coupling with Integration with NRAP-Open-IAM</i> Alex Hannah   PNNL</p> <p><i>Optimal Design of Microseismic Monitoring Network</i> Lianjie Huang   LANL</p> <p><i>Discussion</i></p>	2 pm – 3:30 pm	<p><b>Groundwater Data Collection &amp; Management</b> Moderated By: Joe Lee, GWPC</p> <p><i>“Status and Accomplishments of USGS National Ground-Water Monitoring Network (2015-2021)”</i> Daryll Pope   US Geological Survey</p> <p><i>“Assessment of Water Resources in Alabama Using Data Storage and Geospatial Tools For Management and Policy Decisions”</i> Greg Guthrie   Geological Survey of Alabama</p> <p><i>“Assessment of Per- and Polyfluoroalkyl Substances in Groundwater across New Mexico”</i> Kimberly Beisner   US Geological Survey</p>	<p><b>Virtual Field Trip</b></p> <p>Join Jeff Davis, Senior Hydrogeologist, with Barr Engineering on a virtual field trip to Provo Utah.</p> <p>The recorded field trip takes viewers to visit two infiltration sites that are part of the City of Provo Aquifer Storage and Recovery Program.</p> <p><b>Access the video at any time during the conference.</b></p>	
4 pm	<p><b>Annual Forum Happy Hour – Wind Down</b> Engage with fellow attendees as we wrap up a successful 2021 Annual Forum with our closing Happy Hour networking event.</p>				