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The 12th Annual International Conference for Environmental Data Management (ICEDM) provides environmental data management professionals with a two-day opportunity to share: Ideas, Tools and Custom Applications, Brainstorm and Collaborate on Data Workflow, and Present Data Management Success Stories.

**Dates:** September 21-22, 2022

**Times:** All times are US Pacific Standard Time (PST):

**Location:** In person at the [McMenamin's Edgefield](#), Troutdale, OR  
or Virtually with MIBO and Teams (see each day's links below).

Virtual attendees will have access to cameras showing the presenter and slides, and audience view from the presenter perspective and from the rear. During socialization times you can meet up with other virtual attendees and analogue attendees in MIBO meeting rooms just like we used in the 2021 ICEDM Conference. Your questions can be relayed to the presenter by a moderator.

Virtual Invitations will be sent out about a *week* before the conference. Contact Dan after you register if you prefer the virtual option.

**Registration:** Registration at [www.icedm.net](http://www.icedm.net).

**Contact:** Dan Higgins (503-789-4759) Sarah Wright (206- 794-5888)  
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The 2022 Draft Conference Schedule and Agenda presented below will change as the conference approaches. The most current version of the agenda will be available on the conference website.

## Conference Agenda:

Meeting Space: Edgefield Ballroom

Virtual Meeting Space: [Day 1 Teams Link](#) [Day 2 Teams Link](#)

**Attention! Presentation times subject to change in this Draft Agenda**

ICEDM will release a final agenda a couple of weeks before the Conference

Day 1 – September 21, 2021		
<a href="#">Day 1 Teams Link</a>		
8:30 AM	Continental Breakfast and Conference Welcome	
9:00 AM	Welcome and Greeting	Sarah Wright (ERM) and Dan Higgins (Data Designs)
9:15 AM	Introductions	<p>ICEDM’s participants are what make the conference exceptional every year. The connections that are made at ICEDM have helped participants enhance their knowledge and build lasting networks. For these reasons we will spend time introducing ourselves to each other! Please be prepared to give a 30 second introduction of yourself including: your name, organization, your role, what you want to get out of ICEDM.</p> <p><b>Sarah Wright (ERM) and Dan Higgins (Data Designs)</b></p>
9:45 AM	ITRC: Update on Draft Environmental Data Management Best Practices Guidance Document	<p>The ITRC EDM Team has been hard at work drafting new guidance on best practices for our industry. This work piggybacks off the great work that the ICEDM BMP Roundtable started back in 2016. Join us for an update on the status of the Team’s work as it starts to wrap up, and what the future holds for data management best practices guidance.</p> <p><b>Brian Pointer</b> (North Carolina Division of Water Resources – ITRC Team Lead)</p>
10:30 AM	BREAK – <a href="#">MiBo Room 1 Link</a> <a href="#">Mibo Room 2 Link</a>	
10:45 AM	Mann Kendall Automation with Power BI	<p>The Mann-Kendall statistical trend test is a gold standard for assessing the progress of Monitored Natural Attenuation remediation strategies for contaminated groundwater. This presentation will demonstrate the use of Power BI to automate trend calculations and provide the user an interactive front end to review the results. Power BI’s linking of filters and slicers allow the project team to evaluate trends observed during different timeframes and exclude outliers. Finally, Power BI’s mapping, graphing, and matrix creation tools enable holistic review of the dataset.</p> <p><b>Tori Ward (Woodard &amp; Curran)</b></p>

11:30	<b>DQM Utilization in a PFAS World</b>	With frequent developments in the regulatory landscape, there is ever-increasing attention on PFAS, bringing with it a need to validate, store, and report PFAS data on a large scale. In this presentation, ddms will discuss the nuances and key challenges associated with PFAS data and how DQM can be used to assist validation. <b>Scott Wilson (ddms, inc.)</b>
12:15 PM	<b>LUNCH</b> – <a href="#">MiBo Room 1 Link</a> <a href="#">Mibo Room 2 Link</a>	
1:15 PM	<b>Round Table Discussion</b>	<b>ITRC Data Management Best Practices Training Topics Review</b> The ITRC Data Management Best Practices documents provide great technical resources for our work. Join us to review and discuss staff training topics supporting these best practices.
2:30 PM	<b>Real Time Data Management</b>	ERM will demonstrate techniques for managing high frequency/high volume data within a database, visualization of this data, and a dynamic approach to fully automate these workflows <b>Caleb Worthman (ERM)</b>
3:15 PM	<b>BREAK</b> – <a href="#">MiBo Room 1 Link</a> <a href="#">Mibo Room 2 Link</a>	
3:30 PM	<b>Unmasking the Intimidator: A Process for Building Better Relationships</b>	Each and every one of us has felt uncomfortable in front of others with different expertise and experience, with most of us willing to at least admit we felt intimidated by the person or situation. These feelings and experiences can be particularly challenging for us scientists and engineers who are well-trained in applying logic to solve difficult problems, but sometimes find it difficult or impossible to discuss our feelings and emotions either professionally or personally. This session will 1) delve into a bit of brain science to help understand the feelings and actions behind that feeling of intimidation; 2) provide opportunities to share some experiences of feeling intimidated and perhaps explore the ways to navigate and grow from those situations; and 3) have a little fun while we maybe get a little uncomfortable unpacking feelings and emotions. Audience participation will make this session that much more meaningful and rich; the overall goal is to create a public space to share your experiences with other technical people to support the non-technical aspects of your professional and personal growth. <b>Steve Brauner (Environmental Works, Inc.)</b>
4:30-7:00 PM	<b>Happy Hour in the Ballroom</b> <b>MiBo Links to be IM'ed</b> Hors d'oeuvre and 2 Free drinks	

<b>Day 2 – September 22</b>		
<a href="#">Day 2 Teams Link</a>		
<b>8:30 AM</b>	<b>Continental Breakfast</b>	
<b>9:00 AM</b>	<p><b>Coffee Talk!</b></p> <p><b>Theory vs. Reality: Your Vision of Environmental Data Management</b></p>	<p>We all strive to deliver the best data management service we can to our clients and co-workers. Where does our vision and idealized best practices fall short? We can all learn from each other on how to improve, reframe our expectations, and succeed. Share some stories where you adapted your process and delivered, or fell short and what you'd do different next time.</p> <p><b>Sarah Wright (ERM) and Dan Higgins (Data Designs)</b></p>
<b>10:00 AM</b>	<b>BREAK – <a href="#">MiBo Room 1 Link</a> <a href="#">MiBo Room 2 Link</a></b>	
<b>10:15 AM</b>	<p><b>Lessons Learned on the Environmental Data Governance Journey</b></p>	<p>Recognizing that environmental data are an asset, EarthSoft collaborates with organizations to establish Data Governance programs based upon their business goals, drivers, and data principles. Successful data governance programs are measurable, sustainable and adapt to change beyond the initial implementations, integrating complete environmental data workflows from project planning to data analysis and decision support. EarthSoft developed guidance that organizations can leverage to establish and maintain a successful and sustainable Data Governance program. EarthSoft will share examples of "lessons learned" and needed future steps that our collaboration partners have experienced as they implemented data governance programs, polices, standards, and best practices, including those being finalized by the Interstate Technology and Regulatory Council (ITRC) team.</p> <p><b>Dan McCarthy (EarthSoft. Inc.)</b></p>
<b>10:45 AM</b>	<p><b>Management Of Multiple Data Streams For In-Situ Remediation</b></p>	<p>Sanborn Head monitors in-situ remediation of a chlorinated solvent plume in France via multiple data streams including high spatial resolution ORP sensors with 1.5 meter spacing throughout the aquifer with data delivered via cell and API, continuous live-time system monitoring, 15-minute pressure transducer data, daily manual field measurements, traditional quarterly laboratory data, and conventional lithology logs from coring/well installation. These data are processed using Python and R, stored in an on-premises SQL database, and digested by the project team <i>(continued on the next page)</i> using a custom-built interactive Power BI dashboard embedded in Teams. This data workflow enables the project team to better assess system performance and tune the injection system to meet clean-up objectives.</p> <p><b>Kelly M. Dubois (Sanborn Head &amp; Associates, Inc.)</b></p>

<b>11:30 PM</b>	<b>LUNCH – <a href="#">MiBo Room 1 Link</a> <a href="#">Mibo Room 2 Link</a></b>	
<b>1:00 PM</b>	<b>Networking Challenge!</b>	<p>Networking Challenges to grow your career and develop marketing savvy. Find 5 people you have something in common with and come up with a way to work with them in the future on a unique project or brainstorm a technical solution, write a white paper, etc.</p> <p>Winner gets a \$50 gift card of your choice (Amazon, etc.).</p>
<b>2:00 PM</b>	<b>BREAK – <a href="#">MiBo Room 1 Link</a> <a href="#">Mibo Room 2 Link</a></b>	
<b>2:15 PM</b>	<b>Round Table: The Business Side of Environmental Data Management</b>	Join us for an open discussion where leaders in environmental data management will share their insights into the business side of environmental data management, and then be open for comments and questions from the group.
<b>3:15 PM</b>	<b>Taking the Data Manager Out of Data Management</b>	<p>The ability to scale implementation of data management systems is often limited by the need for dedicated data analysts and system administrators’ involvement throughout the data lifecycle. Using automated workflows and process improvements we can put the work back into the hands of project teams and effectively limit the involvement of data professionals. A discussion of scaling data management workflows, approaches to develop standard tools, templates, and dashboards along with process improvements, automation, and challenges.</p> <p><b>Alexa Teipel (Terracon Data Solutions)</b> <b>Co-author: Kelsey Tobin (Terracon Data Solutions)</b></p>
<b>4:00 PM</b>	<b>Closing Discussion and Remarks -</b>	