

2022 National Water Use Data Workshop

August 16-18, 2022

Salt Lake City, Utah

Utah Department of Environmental Quality Building

195 North 1950 West, Salt Lake City

Agenda - August 12, 2022



What are water use data?

Water use data represent reported or estimated site-specific water withdrawals or consumptive use at daily, monthly, or annual scales for the USGS use categories of public supply, domestic, irrigation, thermoelectric power, industrial, mining, livestock, and aquaculture from surface or groundwater sources.

Workshop Goals

- ❖ Provide a platform for state agencies' staff to learn from each other about the latest state and federal efforts related to water use data management and sharing.
- ❖ Engage state IT and water resources management staff regarding the USGS National Water Use/Water Use Data and Research (WUDR) Program and the WSWC Water Data Exchange (WaDE) Programs.
- ❖ Present the latest technological developments on water use data collection, storage and data Findable, Accessible, Interoperable, Reusable (FAIR) sharing methods and how States can benefit from them.
- ❖ Identify challenges related to States' data collection, storage and sharing efforts and potential solutions to consider
- ❖ Share strategies for enhanced data quality assurance and quality control.

Focus Areas

- Programs or initiatives related to improving FAIR data collection, sharing, and access
- Historic annual/monthly/weekly/daily site-specific water withdrawals and use data reporting and sharing efforts.
- Data gaps and ways that have been developed to fill them. Present on metadata for water use information.

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Agenda (Mountain Daylight Time – MDT)

Day 1 - Tuesday, August 16, 2022 (12:30 – 5:00 pm)

- **12:30 pm: Workshop Registration and Refreshments**
- **1:00-2:00 pm: Welcoming Remarks/Talks** Moderator: **Tony Willardson**
 - ✓ Opening Remarks by Tony Willardson- Western States Water Council (WSWC), Beth Callaway - Interstate Council on Water Policy (ICWP), Melinda Dalton - U.S. Geological Survey (USGS), Peter Colohan - Internet of Water Collation (IoW).
 - ✓ Federal Legislation Update: Water Data Act, Congresswoman Melanie Stansbury (invited)
 - ✓ USGS Water Use Vision. Jaime Painter, USGS Water Mission Area.
 - ✓ WSWC Water Data Exchange (WaDE) Program Water Use Data Sharing. Adel Abdallah, WSWC
- **2:00-2:30 pm: Water-Use Data and Research (WUDR) Grants – Feedback, Discussion, and Lessons-Learned.** Erik Smith, USGS. Discussion on the obstacles/ perceived or real problems on getting WUDR grants. Regional grant idea - strategy.

2:30-2:45 pm: Afternoon Refreshment Break 1

- **2:45-3:45 pm: National, Regional, and State Water Use Data Collection and Modeling Efforts** Moderator: **Tony Willardson**
 - ✓ USGS Water Use Modeling. Richard Niswonger, USGS
 - ✓ OpenET Update (Utah, California, and Oregon pilot study). Forrest Melton, NASA Western Water Applications Office
 - ✓ Oregon's Statewide ET project to update irrigation consumptive use data. Jordan Beamer, Oregon Water Resources Department

3:45-4:00 pm: Afternoon Refreshment Break 2

- **4:00-5:00 State Water Data Initiatives** Moderator: **Tony Willardson**
 - ✓ California Water Data Consortium: Advancing Urban Water Use Data Sharing and Access. Tara Moran, California Water Data Consortium
 - ✓ New Mexico Water Data Initiative. Stacy Timmons, New Mexico Bureau of Geology and Mineral Resources
 - ✓ Developing the Texas Water Data Hub. Taylor Christian, Texas Water Development Board
- **5:00 pm:** Wrap Up and adjourn

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Day 2: Wednesday, August 17, 2022 (08:30 am – 12:00 pm)

- **8:00 am: Refreshments**
- **8:30 to 9:50 am: Software Tools to Share, Visualize, Query, and Download Water Use Data** Moderator: Nancy Barber
- ✓ Utah's Open Water Data Website. Aaron Austin, Utah Division of Water Resources and James Reese, Utah Division of Water Rights
- ✓ Real-time groundwater management with Big Data and the Internet of Things: Examples from the Twin Platte Natural Resources District Water Data Program. James Schneider, Olsson & Kathleen Elmquist, Environmental Science Associates Sitka
- ✓ How Colorado's Decision Support Systems (CDSS) Hosts and Shares Water Data. Brian Macpherson, Colorado Water Conservation Board
- ✓ Internet of Water Geoconnex update – New Mexico Pilot Study. Kyle Onda, Internet of Water Initiative, Center for Geospatial Solutions at the Lincoln Institute of Land Policy

9:50-10:20 am: Morning Refreshment Break

- **10:20 am – 12:00 pm: States Data Collection and Sharing Efforts** Moderator: Erik Smith
- ✓ USGS Data Insights. Cheryl Dieter, USGS Water Mission Area
- ✓ New Jersey's methods in estimating water use and sharing data. Kent Barr, New Jersey Department of Environmental Protection.
- ✓ Wyoming Data Sharing Efforts. Melinda Fegler, Wyoming State Engineer's Office
- ✓ The Great Lakes Regional Water Use Database: Data Collection, Analysis and Reporting Protocols. James Polidori, Great Lakes Commission
- ✓ Reported Water Uses in the Potomac River Basin. Stephanie Nummer-Fantozz, Interstate Commission on the Potomac River Basin. **Virtual**

12:00 – 1:30 pm Lunch Boxes Provided by WSWC

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Day 2: Wednesday, August 17, 2022 (1:30 pm – 5:00 pm)

- **1:30 – 3:00 pm: Data Collection and Sharing Efforts** Moderator: **Beth Callaway**
- ✓ Kansas Water Use Data Collection and Database Migration. David Engelhaupt and Andy Terhune, Kansas Department of Agriculture. **Virtual**
- ✓ Alaska Water Use Data System. Kevin Petrone, Alaska Department of Natural Resources. **Virtual**
- ✓ New Mexico Water Use Data: Collection, Reporting, and Sharing. Julie Valdez, New Mexico Office of the State Engineer. **Virtual**
- ✓ Susquehanna River Basin Cumulative Water Use & Availability Study. John Balay, Susquehanna River Basin Commission
- ✓ Upper Colorado River Basin Consumptive Use and Loss reporting. James Prairie, Bureau of Reclamation- Upper Colorado Region Office

3:00 – 3:15 pm Afternoon Refreshment Break

3:15- 4:00 pm Short break out session (3-4 groups, one virtual) ~5 min per question

Prompting questions

- What are ways your state has improved their capability to share water data such as tools/databases/APIs or others?
 - What can we do to improve data sharing or make it easier? What hinders states from sharing data? how can we encourage data sharing?
 - What are the two biggest take-away?
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- **4:00 – 5:00 pm States Water Use Data Collection and Reporting** Moderator: **Tony Willardson**
 - ✓ Washington Data Sharing efforts. Andrea Lauden, Washington State Department of Ecology
 - ✓ Water Use Data improvements for Nebraska, Jennifer Schellpeper, Nebraska Department of Natural Resources
 - ✓ Water Use Reporting in Oklahoma and Future Goals. Jason Tutkowski, Oklahoma Water Resources Board
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- **5:00 pm: Wrap Up and Adjourn**

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Day 3: Thursday, August 18, 2022 (08:30 am -12:30 pm)

- **8:00 am: Refreshments**
- **8:30 to 9:30 am: States Water Use Data Reporting and Sharing Efforts** Moderator: **Beth Callaway**
- ✓ Major Water Users in Missouri. Trevor Ellis, Missouri Department of Natural Resources
- ✓ Indiana's Water Use Registration and Reporting Program. Mark Basch, Indiana Department of Natural Resources, Division of Water. **Virtual**
- ✓ Water Withdrawal and Consumptive Use Estimates for the Delaware River Basin (1990-2017) With Projections Through 2060. Michael Thompson, Delaware River Basin Commission. **Virtual**
- ✓ Virginia's Approach to Addressing Water Use Data Gaps. Ryan Green, Virginia Department of Environmental Quality. **Virtual**

9:30- 9:45 am Refreshment Break

9:45-11:15 am: Breakout sessions 3 or 5 groups (see prompting questions below)

11:15- 11:30 am Refreshment Break

- **11:30-12:15 pm: Breakout Session Reporting (Day2 and Day3)- about 5-10 min each**
- **12:15 pm: Wrap Up and Adjourn**

Questions to consider answering during the talks and breakout sessions

1. What data related assessments (QA/QC) do you use such as identification of gaps, ways/tools for evaluating data, analysis to identify outliers or overcome data latency issues?
2. What are the challenges in getting the data you need to meet your water rights regulatory needs, water planning and other obligations? Do you have adequate information/data on surface/groundwater uses to make more informed decisions that are not here now? If not, do you have plans for a solution to those challenges? What data are missing now?
3. What is your state's water use reporting systems and are there gaps in technical support, and methods? What future updates/plans for data collaboration, models, data services do you have? If water use data are reported voluntarily by water users, does your agency provide guidelines for reporting?
4. What can WaDE (WSWC), WUDR (USGS), ICWP, and IoW do to help your state meet its challenges?

2022 National Water Use Data Workshop

2022 National Water Use Data Workshop Planning Committee*

- Adel Abdallah, Western States Water Council
- Tony Willardson, Western States Water Council
- Beth Callaway, Interstate Council on Water Policy
- Amy Shallcross, Interstate Council on Water Policy
- Lucas Stephens, Internet of Water
- Kristin Linsey, U.S. Geological Survey
- Erik Smith, U.S. Geological Survey
- Nancy Barber, U.S. Geological Survey
- Dieter Cheryl, U.S. Geological Survey
- Jaime Painter, U.S. Geological Survey

* In no particular order