



AUGUST 2024

CONSORTIUM UPDATES AND HIGHLIGHTS

- Memberships and Sponsors
- WQCC Hearing on Produced Water Reuse - Continuation August 5-8 in Santa Fe
- NMPWRC Mid-year Review - June 20
- Energy Plex Conference - June 25 - Hobbs
- AWWA Produced Water Technical Seminar - June 26th
- NM Strategic Water Supply - State-of-the-Science Meeting - June 27th in Las Cruces
- Award to support DOE PARETO Model Upgrades - July 1
- Produced Water Data Portal Upgrades with GWPC
- TORO Produced Water Podcast Debut - and Series Planning
- American Ground Water Trust Workshop - July 10-11 Albuquerque
- Aquifer Storage and Recovery - Legislation change Comment Period
- Upcoming Meetings, Presentations, and Conferences

MEMBERSHIPS AND SPONSORSHIPS

The 2024 Consortium Membership Agreement is available on the Consortium website, <https://nmpwrc.nmsu.edu>. Several organizations still have not responded to their invoices. If you have any questions contact: Cortney Castle-Chavez at nmpwrc@nmsu.edu, for assistance.

We are happy to announce that Conoco Phillips and Exxon Mobil recently signed on as multi-year research sponsors for the Consortium. This continues support received from these two companies over the past several years in support of research and outreach. Major funding efforts identified include expanding our risk and toxicology testing, and fate and transport modeling.

We are also happy to announce that we received \$1.2M in funding on July 1 from the New Mexico General Fund to support Consortium operations, technical, and research efforts associated with providing the public, state and federal agencies with the most current information and data on the safe treatment and reuse of produced water.

WQCC HEARING ON PRODUCED WATER REUSE - CONTINUATION AUGUST 5-6 IN SANTA FE

The initial public hearing on Rule 20.6.8 NMAC - Ground and Surface Water Protection – Supplemental Requirements for Water Reuse was held by the WQCC the week of May 13, 2024. Mike Hightower provided testimony on his perspective of the proposed Rule relative to the EPA’s Water Reuse Action Plan and the 2019 NM Produced Water Act. Due to strong interest by the public and technical experts testifying before the WQCC, an extension of the public hearing was scheduled for August 5-8 to allow for continued presentations and cross examinations. Additional updates on the proposed Rule can be found on the WQCC website at <https://www.env.nm.gov/opf/water-quality-control-commission/>

NMPWRC MID-YEAR REVIEW - JUNE 20 NMSU

The Consortium's mid-year review was a hybrid review with about 25 people attending in person in Las Cruces and another 35 attending remotely. Those attending in person could also attend tours of NMSU's new pilot testing laboratories, tour of BGNDRF, and a tour of a pilot testing effort hosted by Devon between Carlsbad and Hobbs. Many of the participants were able to take advantage of the tours. Other highlights included:

- Continued interest by more companies in evaluation of their technologies
- Risk and toxicology evaluations are underway on three additional treatment systems
- WET testing of post-treated water continues to show excellent survivability and human cell line testing shows no human impacts
- NMOGA and industry are interested in developing training programs for water technicians with support of NMSU and local community colleges
- Industry is trending toward both recycling and reuse across the Permian Basin with community support and encouragement.
- All the presentations will be uploaded onto the Consortium web site.

ENERGY PLEX CONFERENCE - JUNE 25 IN HOBBS

The Energy Plex conference generally focuses on oil and gas and nuclear energy discussions. The conference this year included the Federal Reserve from Dallas who warned that federal deficits will force the US to relook at energy transition strategies as they will impact energy costs, energy security, and inflation. They suggested the movement toward low emission and low-cost reliable energy supplies - small nuclear and combined cycle natural gas- as a way to get low emissions at low cost with high energy reliability that are also compatible with renewable energy. Access to water was also seen as a major economic driver, so produced water treatment and reuse was seen as a win-win. A water panel suggested that industry has moved fully adopt produced water recycling and is poised to move toward adoption of reuse.

AWWA TECHNICAL SEMINAR ON PRODUCED WATER TREATMENT AND REUSE - JUNE 26

The Rocky Mountain Section of the American Water Works Association, generally the public water supply treatment professionals, had Dr. Pei Xu and Dr. Yanyan Zhang of NMSU as their monthly speakers to discuss their research on produced water treatment. The seminar was attended by approximately 100 professionals from NM, CO, and WY. NMSU presented their latest data on their evaluation of produced water treatment technology performance. Much of the information presented was similar to the data presented at our mid-year review.

NM STRATEGIC WATER SUPPLY - STATE-OF-THE-SCIENCE MEETING - LAS CRUCES CONVENTION CENTER - JUNE 27

New Mexico State University (NMSU) hosted a State of the Science in June to highlight faculty research in the areas of alternative water resources that are directly addressing water scarcity, economic viability, and environmental sustainability in NM. With over 175 attendees from across the state, the Symposium also engaged a panel of researchers from NMSU, UNM and NM Tech who discussed gaps in the research that need to be addressed, and the convergence of research and application for pilot and full scale deployment. The session concluded with an interactive networking and research poster session that included faculty and graduate student

researchers from the three NM research universities. Representatives from the NM Environment Department, NM Energy Minerals and Natural Resources, and the NM Department of Economic Development were also in attendance. Dr. Pei Xu, Dr. Zach Stoll, Dr. Yanyang Zhang, Dr. Robert Young and Dr. Runwei Li from NMSU led panel discussions on the state of current research underway on produced water treatment and reuse and brackish water treatment and reuse.

AWARD TO SUPPORT DOE PARETO MODEL UPGRADES

In January 2024, DOE put out a funding opportunity under the SBIR program for companies to propose plans to update the DOE PARETO Modeling tool for produced water treatment and reuse optimization. The Consortium teamed with several companies to help them prepare proposals. One of those companies, SOTAOG, was recently selected for the Phase I award. The Consortium will be working with SOTAOG, NMSU researchers, the Data and Portal, Risk and Toxicology, Treatment, and Infrastructure Working Groups members to use some funding to provide insight and technical assistance in the first six months of the project.

We will be looking for support from Consortium and working group members to look at proposed efforts and provide suggestions and technical insight on the best and highest priority improvements needed that can best support industry in facilitating the treatment, recycling, reuse, and mineral recovery of produced water to support better long-term water and ecological stewardship.

PRODUCED WATER DATA PORTAL UPGRADES WITH GROUND WATER PROTECTION COUNCIL

The Consortium has initiated efforts with GWPC for 2024 to upgrade our Produced Water Data Portal. The funding will come from NM funding and allow us to incorporate both infrastructure information and raw produced water quality data that has been requested by NMED. The update that will be provided by GWPC to our Water Star-based data portal will enable the Data Portal to include more infrastructure data and more easily support the functional improvements envisioned by the Consortium and SOTAOG. This will make the current PARETO model more user friendly and more accurate as a produced water treatment and transportation infrastructure planning and cost analysis tool.

TORO PRODUCED WATER PODCAST DEBUT AND NEXT STEPS

Through Conoco Phillips, TORO (the irrigation company not the lawnmower company) asked the Consortium to do a pod cast with them on produced water treatment and reuse as part of their water stewardship pod cast series. They have the number #1 rated water pod cast in the world. Mike Hightower worked with TORO to develop an initial overview of the Consortium and our role and goals in supporting the safe reuse of produced water to support better overall water stewardship in the Southwest. Overall TORO was very pleased with the podcast, and it received almost 70,000 live attendees, and 150,000 downloads.

The Consortium has agreed to develop six additional pod casts with TORO, and TORO has agreed to highlight our web site during the pod cast. The suggested next 6 podcasts have been provided to TORO for review. The podcasts are currently being scheduled every other month for the next year. The effort will be coordinated through the Public Education and Outreach Working Group, with several Consortium representatives being considered for participation as subject matter experts.

AMERICAN GROUND WATER TRUST WORKSHOP - ALBUQUERQUE JULY 10 AND 11

The American Ground Water Trust holds an annual or bi-annual ground water conference in New Mexico in the summer. This year there were three presentations on produced water treatment and reuse, one from NMSU, one from the Consortium, and one from Zac Hildebrand from Infinity Water. This is the first time they have had more than one produced water presentation. The general consensus of the water professionals was that the data is showing the ability to provide a high-quality treated water. With the debate on the Strategic Water Supply, the general comments were that the data suggests a Strategic Water Supply effort focused on brackish and produced water is technically feasible. A significantly more optimistic mood versus three years ago.

AQUIFER STORAGE AND RECOVERY - LEGISLATION CHANGES - COMMENT PERIOD OPENS

As brought up at the American Ground Water Trust Conference, New Mexico is in the process of modifying its current ASR regulations to accelerate applications and reduce unnecessary financial and operational burdens to store water underground to reduce surface water storage evaporation. The New Mexico Utton Transboundary Water Resources Center at the New Mexico School of Law is leading that effort and is asking for comments on the draft regulation changes.

You can google Utton Center and go to their web site and make comments on three new legislative packages, with their suggested changes red lined. Of particular interest to potential brackish and produced water reuse is that these two waters have unique water ownership permits from the state that are not specifically recognized in the proposed changes. The Consortium has brought this to the attention of the Utton Center review team, but others might want to weigh in also. There is no particular deadline, but the legislation will be going to interim committees for crafting language this summer, so comments need to be provided soon. If you have any questions you can contact ktara@unm.edu or Mike Hightower.

UPCOMING MEETINGS AND PRESENTATIONS

- Water Policy Symposium - 1st Monday (May -Sept) - Albuquerque, Casa Rondona and Chevron (www.casarondona.com), 8/7 - Produced Water from Oil and Gas, (NMPWRC)
- Energy Dialogue - Santa Fe - Sept 4-5 (Session on PW Reuse and Ecological Stewardship)
- Northern NM Energy Policy Summit - Espanola - Sept 12-13
- November 19-20, Galveston - Society of Petroleum Engineers - "Full-Life Cycle Management of Produced Water" - Registration opened in June
- NMPWRC Annual Meeting - SAVE THE DATE - December 12-13 - Albuquerque, NM