

## CONSORTIUM NEWS NOTES – September 3, 2020

### Consortium News Notes Highlights

- July Webinar presentation and meeting minutes uploaded on MS Teams site and July GWPC seminar.
- Consortium Sponsorship by ExxonMobil
- DOE RFP on fit-for-purpose reuse of nontraditional water by due 9/21/2020
- Participating with the Consortium on Research RFP's
- Produced Water Society – Midstream preliminary treatment support
- TSC Working group update
- Government Advisory Board (GAB) update
- NMED report on Produced Water 2019 public meetings.
- Consortium Outreach Efforts
- Upcoming September and October TSC conference calls,
- Consortium End of Year Closeout Webinar, November 5, 2020.

### July Mid-Year Webinar Presentations and Meeting Minutes

The July 14 Webinar of the NM Produced Water Research Consortium was attended by 65-70 members for both the morning technical sessions, and the afternoon sessions by NMED. The webinar was hosted by NMSU and from what I could see and from complimentary emails, it appears that the coordination, presentations, and question and answers format and connections went smoothly.

We got compliments from the Ground Water Protection Council, on the webinar NMSU hosted through our Consortium on July 13<sup>th</sup>. They had about 300 participants nation-wide, and NM was highlighted as part of the GWPC webinar with Sec. Kenney as a key presenter and several participants from our Consortium on the user perspective panel. The Consortium will continue to work with the GWPC to lead and coordinate the EPA's Water Reuse Action Plan (WRAP) efforts for produced water, as identified in the National Plan published by the EPA in February 2020.

The presentations and meeting minutes from the Consortium webinar have been loaded on the Consortium's MS Teams site. All members should have access to the MS Teams site, your email address allows you to get access. If you have any issues, please let Mike Hightower know.

With the success of the webinar, we will continue to utilize the NMSU webinar services as needed to meet future COVID meeting regulations and requirements.

### ExxonMobil Consortium Sponsorship

In August 2020, ExxonMobil approved a \$250,000 cash sponsorship of the Consortium to be paid over a three-year period from 2020 through 2022. Exxon Mobil has also recently signed a separate research MOU with NMSU to jointly conduct research on innovative produced water treatment technologies. This sponsorship was coordinated through ExxonMobil representatives in Houston, Santa Fe, and with support from ExxonMobil members of the

Technical Steering Committee. We appreciate the ExxonMobil support and have already started putting their 2020 funding to good use.

**New DOE RFP on Fit-for-purpose reuse of nontraditional waters.**

The National Association for Water Innovation (NAWI) a group lead by Lawrence Berkeley National Laboratory, with NMSU as a partner, announced an RFP on August 28, 2020 for \$8M for early stage research on innovative technologies to support fit-for-purpose reuse of nontraditional waters. If you or your company are interested in having the Consortium work with you on a proposal, or help facilitate connections with Consortium members, please contact our Research Director, Dr. Pei Xu at [pxu@nmsu.edu](mailto:pxu@nmsu.edu). Dr. Xu supports the NAWI team on produced water research and should be able to provide good insight into how a proposal might be focused. The information and links are provided below.

Funding Opportunity Announcement (FOA): FOA #: NAWI-BP12020

Key Dates for this Funding Opportunity Announcement	
Funding Opportunity Announcement Released	August 28, 2020
Concept Papers Due	September 21, 2020*
Encourage/Discourage Decision Notification	Week of November 16 <sup>th</sup> 2020
Full Proposals Due	January 11, 2021*
Pre-Selection Clarifications, if needed	Between last week of February and first week of March
Expected Date for Selection Notification	March 2021
Anticipated Project Start Date	June 2021

\*Due 5:00pm PT

- Interested applicants must submit a Concept Paper by 5:00pm PT, on September 21, 2020, to be eligible to submit a Full Proposal.
- To apply to this FOA, applicants must register with and submit application materials through NAWI Exchange at <https://nawi.infoready4.com/> NAWI’s online application portal.

**How to Participate with the Consortium on RFP Research Proposals**

In support of the Consortium membership, NMSU constantly follows federal and state opportunities for produced water research. We have supported several proposals by a number of Consortium organizations, universities, and technology vendors in RFP’s for the BOR and USDA. If you are interested in participating in upcoming research RFP efforts, please contact Dr. Pei Xu to discuss opportunities.

**Produced Water Society Produced Water Conditioning Standard**

The Consortium reviewed and commented on a suggested industry standard for preliminary treatment of produced water to facilitate midstream transfers to address the challenges of non-compatible water impacting pipeline operations, corrosion, sludge buildup, etc. The Consortium leadership has supported the suggested PWS strategy to require some general

produced minimal produced water treatment values for pH, ORP, turbidity, and oils to reduce incompatibility issues. We believe this will help in improved operational performance of treatment systems knowing the general quality of the produced water to be treated.

### **Technical Steering Committee Working Group Updates**

Due to the 25 or so draft technical reports and case studies developed by the Consortium since January, and needed to be finalized for GAB review before October 1, the Consortium technical leadership has focused on finalizing these reports for the past month. But three major working group activities discussed in July have made significant progress since July. These include:

- **Produced Water Infrastructure GIS Mapping**  
Meetings have been held with the BLM to utilize their ARC GIS system to begin mapping of infrastructure, rights of way, and federal range lands needing restoration. The expectation is that we will use this as a template for further mapping of other lands for application, infrastructure, etc.
- **Produced Water Data Portal Upgrade**  
Several meetings have been held with the GWPC on upgrading our current produced water quantity and quality data and providing a web-based and more user-friendly system. We have identified a list of functionality and data evaluation needed for the different Tiers of information needed. GWPC and their contractors are developing initial elements of a TIER 1 system capability, which is based on general public information. This will be a multi-month effort, but an initial review could be available for evaluation and Consortium member input by the end of 2020.
- **Risk and Toxicology Analysis**  
The risk and toxicology subgroup members have reviewed recent EPA directions on direct evaluation of health and safety risks of treated waste water for land and water applications through the analysis of water, plant, and soil bioaccumulation. This is being done using hydroponics, and soil and plant biopsies from greenhouse cultivated plants and WET testing. This has shown significant promise for use in looking at treated municipal waste water, and EPA thinks it is applicable to reuse and risk evaluation of other treated waste waters.

NMSU researchers are evaluating the opportunity to use dedicated green houses and NM Agricultural Research Centers in Farmington, Artesia, and Hobbs to assess opportunities to use this type of approach. The benefits would be the ability to limit risks to the public and environment during initial research because of initial testing in green houses, and facilitate direct quantification of treated water safety and environmental risk. The approach will also provide the ability to establish a direct relative risk for use of different treated waste waters, including municipal waste water and agricultural waste water.

### **Government Advisory Group Meeting August 21, 2020**

The GAB met Friday, August 21 to discuss the review and approval of approximately 25 charters, reports, case studies, and program plans provided by the Consortium since January. While a few have already been reviewed, comments received, and changes incorporated, there

are still 20 that need to be reviewed. The Consortium and the GAB have coordinated a Technical Document Log to coordinate document review time lines and final approval dates. All reviews are scheduled to be completed with final approval by October 15. This is an extensive effort by the GAB to support the Consortium in facilitating research and development efforts in 2021.

### **Minutes of NMED Produced Water Public Meetings – Public Questions and Comments**

When the NM Produced Water Research Consortium was initiated in October 2019, the NMED also initiated a series of five public meetings in Albuquerque, Santa Fe, Carlsbad, Farmington, and Las Cruces. A final report on these meetings and public comments has been completed.

The New Mexico Environment Department (NMED) report titled *Summary of Initial Public Input on Produced Water* is now available and may be accessed from the NMED Produced Water webpage, <https://www.env.nm.gov/new-mexico-produced-water/> under the Public Participation topic. The *Summary of Initial Public Input on Produced Water* presents NMED's compilation and careful analysis of over 760 messages NMED received from the public between October 11, 2019, and March 3, 2020. NMED received these messages in response to information NMED posted to its produced water webpage and information NMED presented during the five public engagement meetings.

The *Summary of Initial Public Input on Produced Water* summarizes the public engagement efforts and captures public sentiment about produced water management, organized around common themes and without attribution to individuals, companies or organizations. Much of the input received focused on the unknowns surrounding produced water use outside of oil and gas, how these unknowns may inhibit development of safe and effective regulation, and how these potential negative implications may affect human health and the environment, now or in the future. The *Summary of Initial Public Input on Produced Water* distills these concerns into primary topics that the public considers priorities for the State to address through future produced water research and/or regulation.

NMED and the New Mexico Produced Water Research Consortium (PWRC) have already been utilizing this public input to guide produced water activities. The *Summary of Initial Public Input on Produced Water* will continue to serve as a resource to NMED, the Consortium, other state officials, and the general public relative to produced water as research and policy initiatives.

### **Consortium and NMED Produced Water Outreach Efforts**

The Consortium continues to work with NMED to support outreach to the public, research groups, and industry on produced water fit-for-purpose treatment research. Recent presentations and upcoming presentations include:

- Santa Fe Water Law Conference Presentation on Produced Water – August 19
- NMOGA Water and Environmental Working Group – Consortium Update – August 27
- NMED Produced Water Update – Interim Meeting, NM Water and Natural Resources Committee – September 3
- NM Association of Commerce and Industry – September 17
- Bureau of Reclamation WIN Conference – Consortium Update – September 22
- GWPC Annual Meeting– Consortium Update – September 29
- IPEC Conference – Consortium & Research Priorities – October 20
- Texas Desal Association – Produced Water in NM – October 27

Also, NMED and the Consortium have discussed holding one or two public meetings to help the public better understand the discussions and decisions of the Consortium on research directions and challenges and the gaps to be filled by the research. We are still discussing how and where to hold those public meetings and the format. If you have suggestions, please let us know.

#### **Next Consortium Meetings and Conference Calls**

Consortium would like to conduct a meeting by Sector – i.e. NGO, producers, midstream, universities, technology vendors, etc. to allow groups of like interests to suggest potential improvements needed to address their issues and concerns.

Those meetings are being planned for September 15, 16, and 17.

We will return to the Working Group meeting format on October 13, 14, and 15.

#### **End of Year Meeting – November 5th**

In discussions with NMED, all the document and report reviews will be completed and NMED will have a path forward for testing in 2021 developed and ready for discussion in mid-October. We have set the date for the End of Year meeting to be Thursday, November 5<sup>th</sup>.

That will allow time for people to review all the final approved documents between mid-October and November 5<sup>th</sup> and be ready with questions. Our current plan is to do this as a webinar through NMSU just like the July webinar. We expect most of the webinar to focus on NMED directions for the Consortium research efforts in 2021, and timelines for research proposals, approvals, and implementation of research projects.