

Texas Water Recycling Association

The voice for water recycling in Texas

Fall/Winter 2014 | Volume 6

All water has a perfect memory and is forever trying to get back to where it was. – Toni Morrison

Goodbye 2014? We Hardly Knew Ye

Impossible as it seems, 2014 is already quickly drawing to a close.

Elections are immediately around the corner, which means TWRA has been busy working with legislators and regulators during the interim to keep them informed and educated on water recycling and the important role it plays in helping the state meet its burgeoning water demand needs.

TWRA was fortunate to present several times to the House Natural Resources committee leadership; the committee will soon publish its report, which TWRA will share on the website when available.

The TWRA legislative and regulatory committee has been meeting to discuss a potential agenda for next year. As you know, TWRA supports incentives, not mandates, and vigorous debate is occurring in many sectors about what shape those might take, if any.

Based on those committee discussions, TWRA has also been meeting with legislators to discuss potential legislative ideas for the upcoming 85th Legislative Session that begins in January, 2015.

Speaking of Committees

TWRA launched a committee to tackle terminology. While words like recycle, reuse, and produced water may seem simple enough, myriad definitions and interpretations exist throughout the water recycling industry and its many applications in various sectors.

The committee is currently researching and will be compiling a list of terms and standardized definitions, a glossary of sorts, to help streamline communications about and around water recycling.

TWRA will encourage stakeholders and interested parties to begin incorporating these terms as (re)defined into the lexicon as the recycling industry continues to expand and flourish. Look for the initial list to be available later this year.

In Other Important News

The Texas Water Development Board has just released its recommended SWIFT rules, based on input and commentary received from countless stakeholders at public meetings held over the last 11 months, since the passage of statewide Prop. 6 last fall.

The rules will be formally accepted and adopted at the upcoming TWDB board meeting, to be held on Nov. 6. Visit TWDB at www.twdb.texas.gov for more information.



At the annual member meeting in Austin, held in August, TWRA was honored to present Representative Doug Miller with the Association's Water Visionary Award, recognizing his leadership, stewardship and tireless efforts to ensure Texas has enough water to meet its human and economic needs. Bravo and thank you.

TWRA Extends Gracious Thanks to our Members

Without members, TWRA would be just another good idea in solving the water woes challenge. As a member-driven organization, we applaud our members for joining the effort to help develop positive, sustainable solutions to Texas' water challenges. We welcome all industries, perspectives, and technologies to discuss and implement strategies to minimize freshwater consumption necessary for industries to safely prosper yet remain environmentally friendly. Welcome to our most recent members: **Bosque Systems, Chevron and Water Standard.**

Here's a little information on what the Association has accomplished and continues to work toward.

- TWRA is the voice for water recycling in Texas and is active at the capitol, in industry, and with participation at conferences and seminars around the U.S.
- TWRA helped develop the new Texas Railroad Commission (RRC) Recycling Rules, which are common sense and flexible. Some of the provisions (i.e.: allowing distilled water to be handled as "freshwater" for oilfield re-use) were driven largely because of TWRA member Fountain Quail's NOMAD experience in Texas.
- John Tintera, the former Executive Director of the RRC, is the President of the TWRA. John is recognized globally one of the most respected experts in regulation revolving around energy and water.
- TWRA's goal is to look for ways to incentivize recycling rather than mandating it.
- TWRA has been asked to present in states such as OK and NM to help those states develop their recycling rules.

Join TWRA and lend your leadership and expertise to our efforts in expanding water recycling. Visit the website at www.txwra.org or contact Jennifer Perkins for membership information and an invoice.

Keep up with TWRA Happenings.

Connect with us on Facebook, LinkedIn and Twitter!

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Twitter.com/TXWRA



Mark Your Calendar

TWRA will host its next quarterly member tele-meeting on Monday, November 24 at 2 p.m.

A meeting invite with call-in information and the agenda will be sent to members next week.

If you are contemplating membership and would like more information about these quarterly meetings, please contact Jennifer Perkins at jperkins@txwra.org.

A First for New Mexico. A Milestone for Halliburton.

JP Welch, Global Business Development Manager – Water Solutions

State government and private industry came together recently to do something that will help the environment, the economy, job creation, and energy development in the state of New Mexico. Working jointly with state officials, Halliburton was able to supply information, insight, and expertise that led to the adoption of new produced water standards. Standards that support the recycle and reuse of produced water through surface impoundments as an alternative to freshwater fracturing.

Water has always been a precious commodity. With the recent droughts throughout the Southwest and West, it has become even more so. And the simple fact is, it takes a lot of water to drill wells and complete them to bring home the energy America and the world needs. In fact, the average hydraulic fracturing operation requires around four million gallons of water per well. In the past that water had to



Behind the battery of tanks, Multi-Chem's AcroClear iron sulfide dissolver controller tank (white) controls and monitors produced water.

come from rivers, lakes, or underground aquifers. Today, Halliburton is helping dramatically reduce the amount of fresh water needed through recycling and the reuse of produced water.

Produced water is located deep within the earth, well below fresh water aquifers, in the same reservoir as hydrocarbon reserves. As each barrel of oil is produced, three to five barrels of produced water is also generated. For years, produced water had to be taken away and deposited as waste due to its high mineral and salt content. But now, produced water can be captured, treated to remove impurities, and stored so it can be used to replace fresh water in hydraulic fracturing without detrimental impact to the environment or the well.

In New Mexico, working with personnel from Mack Energy, Halliburton employed AcroClear® iron sulfide dissolver to treat produced water laden with hydrogen sulfide. AcroClear is an acrolein-based H₂S scavenger and iron sulfide dissolver. It neutralizes hydrogen sulfide so the water can be returned to a centralized pit to be used as frac supply. A Halliburton AcroClear iron sulfide dissolver tank is in use at the pit to help keep the treated water pure. The tank design from Multi-Chem incorporates a satellite-based temperature monitoring system that detects any polymerization or contamination of the product. In the event



Lee Livingston (left) of Mack Energy, and Scott Dawson, deputy director of New Mexico's Oil Conservation District, on site at the state's first produced water surface impoundment.

of a temperature excursion, the GPS transmitter immediately notifies key Multi-Chem response personnel who can arrive on site quickly and make adjustments as needed.

The Mack Energy pit was recently visited by members of the New Mexico State land office as well as Scott Dawson, deputy director of the state's oil conservation district. Operators from Mack Energy, Yates Petroleum, and Lime Rock Resources were also in attendance. Multi-Chem was well represented by Johnny Roe, Chris Westbrook, Smokey Herrera, Wilson Hayes, Ruben Navarro, John Montgomery, and JP Welch.

This is expected to be the first of many produced water recycle applications for the state of New Mexico. As dependence on North American energy grows, water management challenges will continue to be vitally important, and Multi-Chem will continue to provide solutions that respect the environment and reward energy producers. ■



Multi-Chem's Wilson Hayes (right), leads instruction on the AcroClear® iron sulfide dissolver application.



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Miles to Go Before the Sleep

The late summer/early fall has been a busy time for your Texas Water Recycling Association.

In late July, TWRA was in Washington, DC, to unveil the white paper, written in conjunction with the Atlantic Council, discussing sustainable water management in Texas.

In August, TWRA leadership spoke at the Ground Water Summit and member Texas A&M GPRI hosted a short course on Water/Wastewater Challenges and Treatment Options.

In September, Board Chair Brent Halldorson spoke at the Clean Frac'ing 3 conference, and at the 87th WEFTEC conference.

To date, October has presented opportunities to discuss recycling and conservation advocacy and

public policy at the 21st annual IPEC gathering in Houston, and a litany of informative sessions at the American Water Summit, also in Houston.

Fact: if Texas' water demand issues are not resolved, the economic impact could be staggering - almost \$116B in income and 1.1M jobs lost.

November brings the Shale Water Play Management conference, and in December the Lone Star State Water Summit. TWRA is appreciative of the opportunity to speak at these events and to help promote them to members.

And sprinkled throughout the year have been discussions with leadership in New Mexico drafting their recycling rules.

If you have information on a conference that TWRA should support and/or participate in, please forward those details to info@txwra.org.

The American Water Summit 2014: A Smashing Success

TWRA was honored to work with Global Water Intelligence on the 5th annual American Water Summit, held last week in Houston.

The program featured TWRA leadership with Board Chair Brent Halldorson and President John Tintera both speaking on panels.

Numerous TWRA members also provided guidance to attendees based on their experiences in the industry. TWRA appreciates and applauds JP Welch, Halliburton; Amanda Brock, Water Standard; Becky Tomasek, CH2M Hill; April Sharr, Baker Hughes; Mike Howdeshell, Select Energy Services; Walter Dale, Bosque Systems; Chip MacLaughlin, Laredo Petroleum; and Abengoa Water for dedicating the time to advance the field of water recycling.



Did you know:

If Texas recycled $\frac{2}{3}$ of its produced water, based on 2010 volumes, nearly 26% of the projected water shortage in 2060 would be met.

The Texas Water Recycling Association is pleased to continue supporting conferences and seminars that allow industry professionals to learn new techniques and approaches to water recycling.

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5th Annual
SHALE PLAY
WATER MANAGEMENT
2014
SOUTHERN STATES

November 19-20 | Dallas | Texas
(Pre-Congress Workshop November 18)

The **5th Annual Shale Play Water Management Congress for Southern States** will take place in November in Rockwall, Texas, just outside of Dallas.

As the only operator-led community examining water reuse, treatment, sourcing, storage and disposal, and specifically designed for E&Ps working in the Permian Basin, Eagle Ford, Barnett, Haynesville, Fayetteville and Woodford plays, this year's congress will feature a totally redesigned agenda and revamped speakers line-up based on work done in the last few months and the recent regulatory changes affecting water management.

The conference has extended discounted registration to TWRA members. Visit www.shale-play-water-management-2014.com for the agenda, hotel information, and registration. Or check out the Meetings & Conferences page on the TWRA website for easier, click-through access.