Water In Energy conference gears up for second year

Sessions will focus on issues, opportunities offered by water in energy

By Mella McEwen, MRT.com/Midland Reporter-Telegram  Updated 12:18 pm CST, Monday, February 11, 2019

Water issues concerns prompted the University of Texas of the Permian Basin to sponsor the Permian Basin Water In Energy Conference. It debuted last year to a sold-out crowd and gathered international interest.

Water issues and concerns flow through the Permian Basin -- from how the area's oil and gas industry and communities can share the limited resource to how to best use water and lessen the environmental impact.

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The second conference is set for Feb. 20-22 at the Horseshoe, and organizers expect another sold-out event.

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"We absolutely expect the conference to be as successful, or more so, than last year," Jonna Smoot, conference event chair, said in an email from Austin, where she was attending Midland-Odessa Day at the Texas Legislature. "We're reaching a global audience with our attendees. We've had civil water engineers from Minnesota signing up to attend."
“We’ve kept a laser-like focus on retaining our original tenet of not being a commercially oriented conference. We ask our speakers to discuss their opportunities and issues in the context of water in energy and how they’re managing those issues,” she said. “A unique aspect for this year’s conference is that we have landowners speaking.”

Those landowners, addressing landowners and right-of-way issues include Richard Brantley, senior vice president, operations with University Lands; John Mabee, chief executive office, Mabee Ranch; and Kirby Andrews, chief executive officer, Guitar Water Services and Guitar Ranches.

Other sessions will cover source and supply, reuse and recycle, gathering and disposal, government and other entities, legal and regulatory issues and the water midstream industry.

“We’ve booked the Education Building at the Horseshoe just so UTPB can offer poster sessions and conversations and answer questions on a one-on-one basis regarding current educational research regarding water, and water in energy, with our audience,” said Smoot.

George Nnanna (cq), dean and professor of UTPB’s College of Engineering, said poster sessions will come not only from UTPB but the University of Texas at Austin.

The college of engineering is looking at “efficient ways to take produced water, reuse it for hydraulic fracturing and for agricultural purposes,” he said.

The researchers, who include students, are working with current technologies to determine “what is available, what are the benefits and what are the opportunities available for improvement.” Costs are critical because “you can have the best technology in the world, but if it’s not cost-efficient, it’s not used,” Nnanna said.

The conference is critical because the Permian Basin is not only the most-active producing region in the nation but is among the most active in the world and has a global impact.

“The Permian Basin is exploring opportunities to recycle produced water in an energy-efficient way so they do not rely on fresh water, and to reuse it so it’s no longer treated as a waste product,” he said.

Nnanna said he hopes to establish a water-research institute at UTPB much like the one he led at Purdue University Northwest from 2007 until 2018 when he came to UTPB. Such an institute would engage not only the oil and gas industry but scientists from across the globe to come to the Permian Basin and conduct research.

Bridget Scanlon, Fisher Endowed Chair in Geological Sciences and senior research scientist, Bureau of Economic Geology at the University of Texas at Austin, will be part of the session on source and supply.

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She said in a phone interview that she will put the Permian Basin’s water use in the context of the country’s other shale plays. She also will discuss historical water use for hydraulic fracturing and how it’s changed; changes in the volumes of produced water and how those volumes are managed; and projections for future water demand and produced water volumes.

“I will emphasize the importance of reusing produced water for hydraulic fracturing, which will reduce the depletion of groundwater and also reduce the potential of induced seismicity,” Scanlon said.

The good news is that while the use of water in hydraulic fracturing and drilling operations has risen, and the volumes of produced water have grown, those increases give rise to opportunities to reuse produced water, she said.

Ken McQueen, an energy consultant and former New Mexico Cabinet secretary, Energy, Minerals and Natural Resources Department, is part of the session on legal and regulatory issues. He said he plans to focus on a draft white paper on water on produced water prepared jointly by the Environmental Protection Administration, his department, the New Mexico State
Engineer and the New Mexico Environmental Department.

McQueen said part of the job at the department he headed was to ensure that the very important revenue source from the state's oil and gas development continued to benefit New Mexico's education, fire and police protection, roads and highways and other state services in a state that's the fifth driest in the nation.

"As we look at what future impediments may exist to utilize produced water for alternative purposes, four come to mind: a regulatory framework by multiple jurisdictions, economic viability, ample pipeline transportation to get production from source to market and being able to deal with increasing volumes of produced water," and the impact of technological advancements in horizontal drilling and hydraulic stimulation, he said.

In the first year of the conference, Smoot said, "we felt the impact of developing an educationally-based event that focused on the today and tomorrows of water in the energy industry, and we sold out to our full capacity."

Smoot said in her email that "the most often-used word I heard used during our two-and-a-half-day conference last year was 'collaboration.' That word has definitely floated to the surface again in Year Two as we're hearing how companies are reaching out amongst each other and finding newer, better and more environmentally efficient ways of gathering and disposing of water."

In this second year, "I think you'll find a common theme of 'stewardship' being discussed. The Permian Basin is the world's epicenter of energy/oilfield activity and we know that this takes a heavy toll on our people, the infrastructure and most certainly our very precious resource of water."

There are active measures being taken to address issues impacting the region, from housing to the medical, educational and recreational needs of residents, Smoot said. There are also numerous groups looking into the area's roads and infrastructure and taking an active role in making it better, she said.

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