



**UT Permian Basin**  
College of Engineering

## Texas Water and Energy Institute Virtual Water Lecture Series

### The University of Texas Permian Basin

Friday, February 26

10:00 am - 11:30 am CST

Virtual Link: [Click to Join](#)

**Registration required!**  
Email [twei-info@utpb.edu](mailto:twei-info@utpb.edu) or call  
(432) 552-3430

### + Presenting

**Topic: Transforming Produced Water from a Waste to a Resource**  
**Resource: DOE Produced Water Research Portfolio**

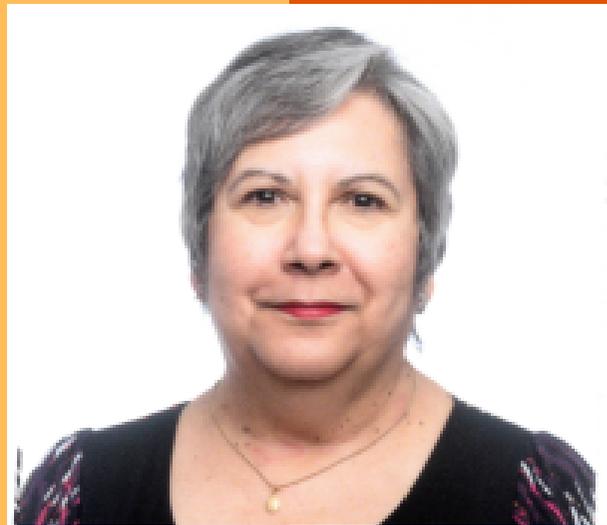
The Energy Policy Act of 2005 brought to DOE the mandate and funding to invest in the development of unconventional resources which ultimately led to the current focus on produced water. The development of shale resources in Oklahoma - particularly Mississippian reservoirs resulted - in greater volumes of produced water that when disposed of as wastewater into deep injection wells of the Arbuckle formation which resulted in induced seismicity. That led to the focus on reducing the amount of produced water that must be disposed of and the desire to transform produced water from a waste to a resource. DOE is a part of the national dialogue of produced water challenges, research, and technology solutions.

This presentation will focus on DOE's engagement in produced water including its research portfolio and recent accomplishments.

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LECTURE SERIES



Water lecture series

## Elena Subia Melchert

Director, Upstream Research Division Office of Oil and Gas, Office of Fossil Energy U.S. Department of Energy Washington

### ABOUT THE SPEAKER

Ms. Melchert is a petroleum engineer with almost 40 years of experience in the oil and gas sector including commercial upstream field operations, research and development, and domestic and international policy development [Latin America]. She is currently the Department of Energy's Director for the Upstream Oil and Gas Research Division that includes shale development and offshore spill prevention. She worked in commercial field operations for Getty Oil Company, Texasco USA, and as a production and then a reservoir engineer the Elk Hills Oilfield operated by the DOE in partnership with Chevron USA. She came to DOE HQ as part of an executive leadership program and has been part of the DOE Headquarters Fossil Energy research program since 1991. She served at the White House supporting the Bush-Cheney Energy Task Force and wrote the oil and gas technology sections of the President's National Energy Policy in 2001. She was appointed Committee Manager of the President's National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling in 2010. She managed the Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Resources Research Program 2007-2017. In 2012, she served as a Subject Matter Expert on the Spill Prevention Subcommittee of the Department of the Interior's Ocean Energy Safety Advisory Committee. She supported the Shale Gas Subcommittee, Secretary of Energy Advisory Board as a subject matter expert. In 2014, she led the development of the oil and gas section of the Department's Quadrennial Technology Review that included detailed Technology Assessments of 5 key areas: Onshore Unconventional, Offshore Spill Prevention, Gas Hydrates, Natural Gas Infrastructure, and Subsurface Science. From 1995 through 2000, she served as the Department of Energy's US Coordinator for Natural Gas in the Western Hemisphere under the President's Summit of the Americas/Western Hemispheric Energy Initiative. In 2017, she was awarded the Secretary of Energy Award for her work on the Department of Energy's Quadrennial Technology Review.