Water plays a critical role in the increased production of oil and natural gas in Texas. Water also creates problems for producers of oil and natural gas that must be addressed by industry, regulators and lawmakers in states throughout the nation, especially in Texas.

These were just a portion of the finding of a new white paper -- “Sustainable Water Management in the Texas Oil and Gas Industry” – delivered by John Tintera, former Executive Director of the Texas Railroad Commission, to the Atlantic Council on July 29 in Washington, D.C.

“Water is key to unleashing domestic energy resources, especially the ‘unconventionals,’” the paper states. Unconventionals refers to the development of drilling and production in resource rock, such as the Barnett Shale and Eagle Ford Shale in Texas.

The white paper is a comprehensive, fact-based report about the use of water. It critically examines what industry and “government has learned, done well, and could do better.”

The 27-page report examines energy related water issues including the increased usage of water in the drilling of wells vertically then horizontally and using hydraulic fracturing techniques to extract hydrocarbons from shale. It also points out the water usage by the oil and gas industry “is proportionally small compared to other users.”

The paper also addresses issues such as population growth in Texas, urban sprawl, and a three-year drought. “Drought in almost 70 percent of Texas and increasing water demand from a growing population are straining Texas’s water supplies,” the paper states. “These factors drive changing water management strategies.”

Freshwater for fracturing and alternatives to using freshwater are discussed including use of brackish water and recycling water for future use.

Disposal of waste water creates a whole set of new issues that are being explored by government and industry. Possible induced seismicity is being examined by the RRC and others.

The RRC has issued new regulations for drilling, completion and cementing along with a Hydraulic Fracturing Chemical Disclosure Rule. Additionally, the RRC has made changes to its water recycling rules to further enhance conservation, reuse and recycling of water.

The white paper concludes by pointing out that the efficient use of our resources requires a cooperative effort among everyone involved, including state and federal policymakers, industry and the public.

Tintera said that “regulatory agencies and the energy industry must increase their public outreach and education efforts, always striving to acknowledge and address water-related issues as they arise.”