



## TEXAS WATER DEVELOPMENT BOARD EXPLAINS FRACKING AND DROUGHT

AUSTIN – (June 17, 2011) – Recent articles in the press have suggested that the natural gas industry, specifically that part of the industry that is using hydraulic fracturing, known as fracking, to increase production, is highly susceptible to the current drought in Texas. “That’s not necessarily the case,” explains Dr. Robert Mace, Deputy Executive Administrator for Water Science and Conservation at the Texas Water Development Board. “It really depends on where producers get their water and where they are in the state.” Groundwater pumped by natural gas producers is, for the most part, exempt from regulation. Local groundwater conservation districts may require producers to report how much water they are using, but districts cannot tell producers how much they can pump. Several districts over the Barnett Shale have the ability to specify how close the industry can drill a water well to another water well, but most districts do not have this ability.

Furthermore, many of the aquifers used to provide water to the natural gas industry are not responsive to short-term variations in climate. “Much of the groundwater used by the industry is from the artesian portions of sandstone aquifers,” explains Mace. “While these aquifers are affected by long-term climate variations, short-term climate variations, such as the current drought, do not directly impact the aquifer.” However, short-term variations in climate can have indirect impacts. “If irrigators pump more water because of the drought, water levels in the aquifer will decline faster,” says Mace.

The use of surface water is regulated by the state through the Texas Commission on Environmental Quality (TCEQ). If a natural gas producer has a temporary permit from TCEQ to use surface water, the producer might lose that permit during a drought. “We have seen that happen with the Barnett Shale during dry periods,” Mace recalls. In that case, a producer could switch to groundwater or contract for water through a third party such as a city or landowner. “In those instances,” comments Mace, “the supply of water would depend on the permits the third

party holds for their water." Another potential source of water is treated wastewater from a municipality.

Location in Texas and the status of local water resources is another important consideration. For example, the drought has been severe in the lower Rio Grande Valley as it has in much of the rest of the state, but because of rains in previous years, Lake Amistad is at 98 percent capacity (97 percent for the Texas portion). Other parts of the state have not been as fortunate. "In short," Mace explains, "producers that can use groundwater are unlikely to be impacted by the drought. Producers that use surface water are more susceptible to the drought, but it depends on local conditions and where they get their water."

The TWDB is the state agency charged with collecting and disseminating water-related data, assisting with regional planning and preparing the State Water Plan for the development of the state's water resources. The TWDB administers cost-effective financial programs for the construction of water supply, wastewater treatment, flood control, and agricultural water conservation projects.