

La. Commissioner of Conservation Recommendation on Water Sources

August 2011

Commissioner of Conservation Jim Welsh recommends that oil and gas operators with interest in developing the Tuscaloosa Marine Shale in Central Louisiana choose their water sources wisely for use in drilling or hydraulic fracture stimulation operations. Of particular interest are areas to the west of the Red River and east of the Mississippi River where the Chicot, Evangeline, Jasper, Catahoula and Southern Hills Aquifer systems are being used predominately for drinking water supply for domestic and public water supplies.

Based on information provided by the Louisiana Geological Survey, freshwater surface recharge areas for these aquifer systems are located throughout major portions of Central Louisiana and nearly all of the Northern Florida parishes east of the Mississippi River. Preventing and minimizing reductions of freshwater recharge into aquifer systems is a key aspect to maintaining and improving aquifer system sustainability.

Based on USGS and other published information on ground water resources Louisiana, the Red River and Mississippi River Alluvial aquifer systems are high yield systems comprised of coarse gravel and sand formations continuously recharged by the surface waters of their named rivers. It is further documented that the Red River and Mississippi River Alluvial aquifer systems, due to their hardness and high dissolved solids, are seldom used for domestic and public supply purposes, but are suitable water sources for industrial purposes.

Therefore, if ground water must be used for drilling or hydraulic fracture stimulation purposes, it is recommended that the Red River and Mississippi River Alluvial aquifers be utilized for these purposes, where feasible, as the source of ground water supply in lieu of the Chicot, Evangeline, Jasper, Catahoula and Southern Hills Aquifer systems. However, agency staff will continue to evaluate water usage from these aquifer systems for hydraulic fracture stimulation operations according to state law.

The Commissioner further encourages oil and gas operators to use the available surface water resources or other acceptable alternative water sources in the Central and Florida parishes of Louisiana, where practical and feasible.

Provided below are links to published documents, resources and references available for water quality and use in Louisiana. If you have any questions or need further clarification, please contact Environmental Division staff at 225-342-8244 or by email at <http://dnr.louisiana.gov/groundwater>.

Louisiana Department of Environmental Quality Aquifer Sampling and Assessment Program Water Quality Reports 2000 – 2009

<http://www.deq.louisiana.gov/portal/DIVISIONS/BusinessandCommunityOutreach/AquiferEvaluationandProtection/AquiferSamplingandAssessmentProgramASSET/ReportsAquiferSummaries.aspx>

Water Use in Louisiana, 2005: Louisiana Department of Transportation and Development Water Resources
Special Report No. 16, 133 p., 2007

<http://la.water.usgs.gov/pdfs/WaterUse2005.pdf>

Louisiana's Principal Freshwater Aquifers" Louisiana Geological Survey, January 2010

<http://www.lgs.lsu.edu/deploy/uploads/Aquifers.pdf>