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New Developments at the Louisiana Office of Conservation

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As the primary agency tasked with regulating the oil and gas industry within Louisiana and charged with managing the State’s groundwater resources, the Louisiana Office of Conservation (“Conservation”) has many statutory duties and varied programs that it oversees. Recent changes to law involving Conservation’s role and the potential for future changes provide too many topics to cover in this format. Instead, this paper will summarize the latest actions of Conservation in just a few areas of its statutory authority. These recent changes in the law are hardly surprising considering the many changes facing the oil and gas industry. Whether it is hydraulic fracturing, groundwater resource management, legacy litigation, pipeline safety, unitization, or exploration and production waste disposal and reuse, these changing duties and responsibilities are all high profile both within the regulated community and also publically. These programs promise continuing change in the future, but to the greatest extent possible the Office of Conservation seeks effective enforcement of its regulatory duties without creating unnecessary obstacles or burdens to safe and responsible operations. This paper provides a summary of the latest actions taken by the Office of Conservation and federal agencies in relation to hydraulic fracturing, in general, and the Haynesville Shale, in particular, the various water resource management programs within the Department of Natural Resources, and a brief discussion of the applicability of pipeline safety requirements.

I. Overview of the Office of Conservation

Conservation is one of three primary offices within the Louisiana Department of Natural Resources and is headed by the Commissioner of Conservation. The Office of Conservation has
primary statutory responsibility for regulation and conservation of oil, gas, lignite, and other natural resources. In regards to regulating mineral development, Conservation’s objectives are to prevent waste, to conserve oil, gas, and other hydrocarbons; to control and allocate energy supplies and distribution, and to ensure that exploration and production activities are conducted in a manner which does not cause injury to neighboring leases, property or the environment. Conservation exercises its statutory authority with regulations governing well location, construction, operation and abandonment; oil and gas storage, measurement and intrastate transportation; and Exploration & Production waste storage and disposal practices. The Office of Conservation consists of three District Offices (Shreveport, Monroe, and Lafayette) and five divisions (excluding the Executive Division); the Engineering Division, Environmental Division, Geological Division, Injection & Mining Division, and the Pipeline Division.

The Engineering Division is responsible for ensuring that wells are located, constructed, operated and abandoned in a manner which prevents waste of resources and injury to neighboring leases, property or the environment. As a result, the Division collects and maintains official records for each well including current and historical information on the well configuration, status and operator. The Division also conducts periodic inspections of, among other sites, active wells and associated facilities in an effort to ensure regulatory compliance. Enforcement actions are initiated when necessary to address regulatory deficiencies. These actions include issuing Orders and Civil Penalties, suspending permits or declaring wells “orphaned”. The Engineering Division oversees the daily operations of the Oilfield Site Restoration Program (La. R.S. 30:80, et seq.) which seeks to properly plug and abandon orphaned oilfield sites using monies from the Oilfield Site Restoration Fund. This division issues drilling permits, oversees on-site disposal of Exploration and Production Waste, performs production audits, reviews various administrative applications, and manages the Commissioner’s dockets concerning unitization, applications for exceptional well locations, and various disputes regarding well and unit operations.

The Environmental Division implements the ground water management program, the water well programs for driller
licensing, water well registration and enforcement (construction and plugging requirements), and the exploration and production waste (E&P waste) program for off-site (commercial) management of E&P waste. The Environmental Division also manages all settlement and court related activity for litigation subject to the provisions of Act 312 of 2006 pertaining to site evaluation or remediation pursuant to the Act and LAC 43:XIX.Subpart 1.Chapter 6, and serves as technical support to other divisions for matters involving groundwater impact resulting from E&P waste sources.

The Pipeline Division regulates the use, conservation, and transportation facilities for the movement of natural gas and hazardous liquids through intrastate pipelines and is responsible for a comprehensive pipeline safety inspection and enforcement program pertaining to said pipelines. The pipeline safety section of the Pipeline Division is responsible for regulations applicable to intrastate pipeline operators to ensure safety and compliance with regulations. This includes but is not limited to, operator inspections, compliance and enforcement programs, safety programs, and accident investigations. During an emergency situation the Pipeline Division can provide data ownership/management issues involving pipelines and transportation. The division of pipelines is also responsible for investigations stemming from controlled and uncontrolled releases from pipelines within the state.

The Injection and Mining Division has the responsibility of implementing two major federal environmental programs which were statutorily charged to the Office of Conservation: the Underground Injection Control (UIC) program with federal oversight from the Environmental Protection Administration (EPA) and the Surface Mining Program with federal oversight from the U.S. Department of the Interior, Office of Surface Mining. The UIC section of this division administers a regulatory permit program to protect underground sources of drinking water from endangerment by the subsurface emplacement of both hazardous and non-hazardous fluids through deep well injection, and other oilfield waste disposal techniques. The Surface Mining section of this division is responsible for the regulation of
exploration, development, and surface mining operations for coal and lignite, and the protection of state and private lands.

The Geological Oil and Gas Division administers a regulatory program to prevent waste of oil and gas and the drilling of unnecessary wells protects individual property rights, and conserves the state’s natural resources in a geologically-approved manner.

II. Hydraulic Fracture Stimulation Operations

Hydraulic fracturing is a completion technique utilizing the high-pressured injection of water, sand and chemical additives causing the fracturing of tight formations to promote production of oil or gas. This process, while opening great potential reserves of energy, has raised concerns regarding environmental protection and public safety. There is ongoing discussion at the national level of regulating hydraulic fracturing in a similar manner to subsurface injection wells covered by UIC regulation. The EPA is currently conducting a study on the potential of federal regulation of hydraulic fracturing operations. This study is expected to be finalized by 2014.

Currently, under Louisiana law, hydraulic fracturing is treated as a completion technique and is not regulated under the UIC program. Though hydraulic fracturing first appeared in Louisiana in the 1960’s, it was not until recently with the activity of the Haynesville Shale that hydraulic fracturing in Louisiana became a major topic of public interest. Due to the scale of the drilling and fracturing activities associated with the Haynesville Shale, Conservation has had to deal with several issues on a previously unknown scale. Waste water reuse regulation promulgation, amendments to commercial waste disposal and treatment requirements, and the regulation of E&P activity in urban areas of Northwest Louisiana are just a few examples of recent Conservation actions regarding the regulation of hydraulic fracture stimulation operations.
**General permitting and reporting requirements**

Following permitting of the oil or gas well but prior to beginning hydraulic fracture stimulation operations, the operator of the well must file an application for and receive a work permit from the appropriate District Office of the Office of Conservation. LAC 43:XIX.118(B). The operator must provide the appropriate Conservation District Office notice at least 12 hours prior to commencing hydraulic fracture stimulation operations so that a Conservation representative is able to be present to witness the hydraulic fracture stimulation operations. When hydraulic fracturing is completed, the operator must file a Well History and Work Resume Report (Form WH-1). LAC 43:XIX.118(C). The WH-1 Form must be filed within 20 days of completing the hydraulic fracture stimulation operations.

**Exploration and production waste reuse**

In an effort to conserve water resources as much as possible and to reuse fluids which would otherwise be disposed of via subsurface injection, Conservation amended its on-site waste treatment and disposal regulations. In November of 2009 and June of 2010, Statewide Order No. 29-B was amended to allow the “temporary use of E and P Waste (Produced Water, Rainwater, Drilling, Workover, Completion and Stimulation Fluids) for Hydraulic Fracture Stimulation of the Haynesville Shale Zone.” LAC 43:XIX.313(J). In order to utilize this reuse provision, however, several conditions must be met: 1) the originating and receiving well sites must have the same operator of record, 2) all residual waste generated in the treatment or processing of E and P waste prior to use in hydraulic fracture stimulation operations must be properly disposed of, 3) the types and volumes of E and P Waste generated for temporary use along with the well name and well serial number of the receiving well site must be reported on Form ENG-16 for the originating well and/or Form UIC-28 or other forms specified by the Commissioner, 4) an affidavit must be provided by the operator which attests that the operator has authority to store and use E and P waste from an offsite location at the receiving well site, and 5) E and P Waste intended for temporary use must be stored at the receiving well site in an above ground storage tank or a lined production pit which conforms to
the liner requirements and operational provisions of LAC 43:XIX.307.A.

In November 2010 Conservation promulgated regulations to clarify the process for off-site Commercial Disposal Facilities to treat E and P Waste for reuse as a media for hydraulic fracture stimulation operations. Facilities must be permitted as any E and P Commercial Disposal Facility would in accordance with the requirements of LAC 43:XIX.519. This allows for the comingling of E and P Waste for treatment and reuse as hydraulic fracture stimulation fluids regardless of the operator of record for the originating or receiving well sites. Each commercial facility which generates fracture stimulation reuse fluid must furnish the commissioner a monthly report showing the disposition of all such material. LAC 43:XIX.565. Through this report and by comparing it to the WH-1 form filed by the operator of the receiving well, in which the source of any fracture fluid must be identified, Conservation is able to audit its records to ensure that all such reused fracture stimulation fluid is properly utilized and the regulations are followed. Additionally, this rule amendment provides that “upon receiving possession of the [fracture stimulation reclamation fluid] from a commercial facility, the operator shall be solely responsible for ensuring that” the fluid is only used as a media for hydraulic fracture stimulation operations. LAC 43:XIX.303(P).

Haynesville Shale urban operation requirements

The Commissioner of Conservation created an ad-hoc committee consisting of representatives of industry, local government, and regulatory agencies to study the effect and need for specific regulations of oil and gas operations in urban areas associated with the Haynesville Shale. Following several meetings and consideration of similar requirements found elsewhere in the country, including Texas’ Barnet Shale, the Commissioner adopted Order No. U-HS on June 22, 2009. The regulations of this order applies only to Haynesville Shale wells drilled within seven hundred fifty (750) feet of a residence, religious institution, public building or public park and is located in an “urban area”, which is defined as “any area in the Parishes of Bossier, Caddo, DeSoto, Sabine, Natchitoches, Red River, Webster or Bienville … which is
within (1) the limits of an incorporated city, town or village; or (2) a subdivision consisting of twenty (20) or more lots as to which a subdivision plat has been prepared and filed in the parish conveyance records pursuant to the provisions of LSA-R.S. 33:5051.” The order sets forth specific spacing requirements for wells in relation to buildings and public parks. The order provides additional operational requirements regarding a variety of issues including: fencing, maintenance of drill sites, dust, vibration, odor, lighting, muffling of exhaust, venting and flaring of gas, work hours, noise and road use.

**Fracture fluid reporting requirements**

Conservation’s new hydraulic fracture fluid reporting requirements were promulgated on October 20, 2011 and can be found at LAC 43:XIX.118. The new regulation codified many already existing policies and practices, such as reporting the source of water for the hydraulic fracture stimulation and applying for a work permit prior to performing hydraulic fracture stimulation operations. Additionally, these new regulations share many similarities to reporting requirements in other states such as the Arkansas and Wyoming regulations and recent Texas legislation. Following completion of hydraulic fracture stimulation operations the operator of the well is required to report to Conservation the 1) types and volumes (in gal.) of hydraulic fracture fluid used in the operation, 2) a list by type of all additives used during hydraulic fracture stimulation operations (specifically listing the trade name and suppliers of the additive), 3) list of chemical ingredients in fracture fluid subject to the requirements of 29 CFR 1910.1200(g)(2) and their associated CAS numbers, 4) specify for each chemical ingredient the maximum ingredient concentration within the additive expressed as a chemical by mass of each chemical ingredient, and 5) the maximum concentration of each chemical ingredient expressed as a percentage by mass of the total volume of hydraulic fracture fluid used.

The registered operator of the well being hydraulically fractured is the party responsible for reporting this information. This information may be reported directly to Conservation using the Work History/Well Resume Report (WH-1), through the Frac Focus Chemical Disclosure Registry (an online accessible registry
sponsored by Groundwater Protection Council and the Interstate Oil & Gas Compact Commission), or a similar publicly available website. Conservation’s reporting requirements are not intended to change the laws regarding confidentiality and specifically states that chemical ingredient identity and CAS numbers entitled to trade secret designation pursuant to 29 CFR 1910.1200(i) do not need to be reported. Instead when a trade secret is claimed, only the chemical family of the trade secret and a statement that the information is “privileged”, “proprietary” or a “trade secret” must be included in the report. No party can withhold trade secret information from a health care professional when such disclosure is required by state or federal law.

III. Water Resources

*Groundwater management*

The Office of Conservation has several programs involved in the management of the State’s groundwater resources. The first, found at La. R.S. 38:3097.1, et seq., empowers the Commissioner with overseeing and reviewing the registration of groundwater wells, the declaration of groundwater emergencies, the declaration of areas of groundwater concern and the adoption of rules and orders consistent with his authority. The same Chapter of Title 38 also establishes the Louisiana Ground Water Resources Commission and the Ground Water Management Advisory Task Force. The Louisiana Ground Water Resources Commission is a nineteen (19) member commission with the authority to, among other things, review orders of the Commissioner of Conservation placing restrictions on water wells, review rules and regulations adopted by the Commissioner, and to cooperate with the Commissioner in the continued development of a statewide groundwater resources management program. La. R.S. 38:3097.4. The Ground Water Management Advisory Task Force is a forty-four (44) member multi-disciplinary group tasked with assisting the Commissioner of Conservation and the Louisiana Ground Water Resource Commission in continuing to develop the statewide ground water resource management program.

Additionally and through separate legislation, the Office of Conservation oversees the construction of groundwater wells and
geotechnical boreholes as well as the certification of water well drillers. This authority is found at La. R.S. 38:3091, et seq., and La. R.S. 38:3098, et seq.

All water wells drilled after 2001 must be registered with the Office of Conservation. Such registration requires reporting of the water well owner, the well’s location, the well’s depth, the aquifer drilled to, the intended use of the water and expected water production. With the exception of water wells classified as domestic, drilling rig supply wells, replacement wells and drought relief wells, registration for all water wells must be submitted to Conservation at least 60 days prior to drilling the well. Those wells exempted from this prior notification requirement must be registered within 60 days following completion. The Commissioner and his staff will review the water well notifications and determine if the proposed water withdrawal will adversely affect the sustainability of the aquifer or adversely impact nearby water wells. If a determination is made that the proposed water well does pose such a threat the Commissioner, depending on the specific size or location of the well, may impose use restrictions, spacing restrictions, mandate metering or request additional information. Any such limitation is appealable to the Louisiana Ground Water Resources Commission and ultimately to the Nineteenth Judicial District Court.

In the event that, under current usage and normal environmental conditions, sustainability of an aquifer is not being maintained due to either movement of a salt water front, water level decline, or subsidence, resulting in an unacceptable environmental, economic, social, or health impact, or causing serious adverse impact to an aquifer, considering the areal and temporal extent of all such impacts, the Commissioner is authorized to establish an area of ground water concern. La. R.S. 38:3097.2 and 38:3097.3. An area of ground water concern is to be designated a critical area of ground water concern when the commissioner finds that sustainability cannot be maintained without withdrawal restrictions. R.S. 38:3097.2. By order creating such areas, the Commissioner can require data gathering, spacing requirements, withdrawal restrictions, and water conservation incentive programs.
Currently there are three areas of ground water concern within the state. By Order No. AGC-1-05, the Commissioner of Conservation created three areas of groundwater concern for the Sparta Aquifer surrounding in the areas of Monroe-West Monroe, Ruston, and Jonesboro-Hodge, Louisiana. This order requires owners of each non-domestic water well in an area of groundwater concern to submit a monthly report to the Commissioner showing the amount of water pumped on a monthly basis and the purpose for which it was used. Additionally, the static water level for each well is to be reported. The Commissioner has also ordered an aggressive water conservation education program, the registration of all water wells not previously registered, and that users of Sparta groundwater vigorously seek alternative sources of potable water to alleviate excess usage of the Sparta Aquifer.

If an unanticipated occurrence as a result of a natural force or man-made act which causes a groundwater source to become immediately unavailable for beneficial use for the foreseeable future or drought conditions warranting the temporary use of drought relief wells to assure sustained production of agricultural products in the state, the Commissioner may declare a groundwater emergency. La. R.S. 38:3097.2(7) and 38:3097.3. The Commissioner declares groundwater emergencies by order or rule in which he must define the geographical extent of the emergency. He is authorized to retain personnel or let contracts as necessary with persons who shall operate under his direction to abate the emergency conditions. Additionally, the Commissioner is authorized to fix allowable production, spacing, and depth for wells within the area in such a way that the combined production of groundwater will not have long-term adverse effects on the aquifer. In the case of drought conditions, the Commissioner may authorize the temporary use of drought relief wells for agricultural use in times of drought. La. R.S. 38:3097.3(C)(8) and (9).

On August 19, 2011, the Office of Conservation declared by order a temporary groundwater emergency for two areas of South Caddo Parish due to exceptional drought conditions resulting in higher than normal withdrawal of groundwater without sufficient offsetting aquifer recharge. These conditions resulted in groundwater levels in the Carrizo-Wilcox and Upland Terrace aquifers to drop to levels causing several shallower water wells in
the two areas to go dry. To prevent further water level decline and to reduce stress on the aquifers in these two areas, Conservation ordered water conservation measures and groundwater use restrictions. The areas of interest covered under the order are in the Keithville and the Ellerbe Road areas south of Shreveport. The order allows for continued use of groundwater for human consumption and agricultural purposes. Prescribed water conservation measures outlined in the order include limitations on residential lawn and golf course fairway watering, washing of vehicles and equipment beyond what is necessary to achieve proper maintenance, the filling of ponds for aesthetic purposes, and the filling of pools beyond maintenance purposes. Industrial wells are prohibited from withdrawing water beyond what is necessary for human consumptive and agricultural purposes, and may not exceed withdrawal of 300 gallons per day for any other reason without prior authorization from the Commissioner of Conservation.

Since issuance of the Emergency Order, Conservation staff has continued to monitor hydrologic data in the region provided to our agency courtesy of the LSU Shreveport Red River Watershed Management Institute. Review of the ground water level data received on February 6, 2012 collected from the LSU Shreveport monitoring wells located in the Areas of Interest indicate that water levels from November 2012 to present continue to show a gradual upward trend. Water level data reported during January and February 2012 indicate that water levels at all four monitored locations have risen above water levels reported on June 28, 2011. That being said the emergency order remains in effect.

As part of the continued development of the state’s groundwater resource management program, the Louisiana Ground Water Resources Commission in 2009 passed a resolution requesting the Commissioner of Conservation to seek funding in order to pursue establishing a statewide groundwater management plan. The Commissioner was able to secure funding through the Department of Health and Hospital State Revolving Fund and prepared a scope of services to hire a private consultant to prepare a report with recommendations for the plan. Following issuance of a request for proposal, Ecology and Environment, Inc. was selected to provide recommendations for the statewide groundwater
management plan. At approximately the same time, HCR 1 of the 2010 Regular Legislative Session was passed requesting the Louisiana Ground Water Resources Commission, through its chair, to prepare a report on the state’s water resources and to provide recommendations for the optimal management and protection of the state’s water resources. Beginning in 2010 and following several statewide public meetings, a final recommendation on a statewide groundwater management plan was delivered by Ecology and Environment, Inc. on December 7, 2011. The Louisiana Ground Water Resources Commission met in January of 2012 to discuss these recommendations as well as the report required by HCR 1 of 2010. Currently, the final HCR 1 Report is due on March 15, 2012.

**Water well construction and driller certification**

With the passage of Act 437 of 2009, the Office of Conservation took over regulating water well construction requirements and water well driller certification from the DOTD, Office of Public Works. Similar to oil and gas drilling and completion requirements, these regulations describe the techniques, equipment and construction requirements for groundwater wells and geotechnical bore holes. Water wells must be registered by the water well driller and include specifics regarding the water well’s construction. Water well drillers are required to pass a written exam and their certification application reviewed by the Water Well Drillers Advisory Committee prior to being allowed to drill any water wells or geotechnical boreholes within the state. Specific construction and registration requirements for water well drillers were recently amended by rule change in December of 2011. One recent change is the streamlining of registration requirements for domestic and drilling rig supply wells. Now, instead of registration by both the owner and driller, the water well driller registration of a domestic or a drilling rig supply well will suffice for the owner registration requirements found in La. R.S. 38:3097.3 as well.

**Surface water**

Through several Attorney General Opinions (AG Op. No.’s 08-0176, 09-0028, and 09-066), the Attorney General’s office
determined that the State owns running water and holds it in trust for the public. The opinions go onto state that running water is a thing that has inherent value. Thus as a thing of value that is owned by the State, La. Const. Art. VII, §14 applies. This provision restricts the donation of things of value by the State. Therefore running water is a State-owned resource that cannot be donated by the State without compensation. Through Act 955 of 2010, the Louisiana Legislature directed the Department of Natural Resources to serve in a stewardship role in the management, preservation, conservation, and protection of the state’s surface water resources. That act can be found in Title 30 of Louisiana’s Revised Statutes, Chapter 9-B, sections 961, 962 and 963. Act 955 authorizes the Secretary of the Louisiana Department of Natural Resources to develop an application for and to enter into Cooperative Endeavor Agreements (CEA’s) for the withdrawal of running surface water. The State Mineral and Energy Board developed and prescribed a uniform form for the CEA’s, which has been approved by the Attorney General.

IV. Pipeline Safety

The Office of Conservation implements the State’s pipeline safety requirements and has primacy to implement the federal pipeline safety requirements adopted by the U.S. Department of Transportation, PHMSA. The primary pipeline safety regulations for Louisiana’s intrastate pipelines are found at LAC 33:V.301-313, LAC 43:XI.Chapter 5 and LAC 43:XIII.Subparts 1 - 4. Together these requirements include construction, monitoring, inspection, reporting and planning provisions for intrastate pipelines. Currently gas and hazardous liquid gathering lines are not regulated pursuant to these provisions. But a study is ongoing at the federal level which may lead to their future regulation.

The Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011 (Pub. L. No. 112-90, 125 Stat. 1904, (2012)) passed by the 112th Congress, directs the Secretary of Transportation to conduct a review of the existing Federal and State regulations for gas and hazardous liquid gathering lines located onshore and offshore in the United States, including within the inlets of the Gulf of Mexico, and to report to Congress his recommendations with respect to “(A) the sufficiency of existing Federal and State
laws and regulations to ensure the safety of gas and hazardous liquid gathering lines; (B) the economic impacts, technical practicability, and challenges of applying existing Federal regulations to gathering lines that are not currently subject to Federal regulation when compared to the public safety benefits; and (C) subject to a risk-based assessment, the need to modify or revoke existing exemptions from Federal regulation for gas and hazardous liquid gathering lines.” The act requires the report to be submitted no later than January 3, 2014 to Congress. In addition to being of great interest to Conservation, this report should be followed by members of industry that operate gathering lines not currently regulated pursuant to PHMSA requirements.

**Conclusion**

Conservation has been at the forefront of many new challenges and opportunities in recent years and the above is a small selection of the recent actions undertaken by the office. With the on-going changes in oil and gas production techniques and technology, as well as the potential for new or different statutory responsibilities in the future, members of the regulated community and the public at large are encouraged to stay involved and up to date on Conservation’s programs, laws and regulations. Additional information on the Office of Conservation and the rest of the Department of Natural Resources is available on the web at http://dnr.louisiana.gov.