

Department of Legislative Services  
Maryland General Assembly  
2014 Session

**FISCAL AND POLICY NOTE**

Senate Bill 745 (Senator Young, *et al.*)  
Education, Health, and Environmental Affairs

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**Shale Gas Drilling Safety Review Act of 2014**

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This bill prohibits the Maryland Department of the Environment (MDE) from issuing a permit for the hydraulic fracturing of a well or requiring, accepting, or initiating a process for a comprehensive gas development plan (CGDP), until specified conditions are satisfied. MDE and the Department of Natural Resources (DNR) are required to issue a risk assessment of public health and environmental hazards relating to hydraulic fracturing activities with specified information and classifications of risk. MDE is authorized to establish a fee on owners of specified gas interests, if the fee is requested by a representative of the natural gas drilling industry. Additionally, any regulations specific to hydraulic fracturing that are adopted by MDE under the bill must include restrictions deemed necessary to protect public health and the environment. Finally, the bill defines a CGDP and alters several definitions applicable to current oil and gas provisions and makes several statements as to the intent of the General Assembly related to hydraulic fracturing.

The bill takes effect June 1, 2014.

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**Fiscal Summary**

**State Effect:** General/special fund revenues associated with general economic activity decrease, potentially beginning in FY 2015, to the extent that the bill delays or prevents the development of natural gas resources that would occur in the absence of the bill, as discussed below. MDE can likely implement the bill with existing resources. This analysis assumes that a fee on owners of specified gas interests is not established, as discussed below.

**Local Effect:** Local severance tax revenues and other revenues associated with general economic activity decrease for Allegany and Garrett counties, potentially beginning in FY 2015, to the extent that the bill delays the development of gas resources that would occur in the absence of the bill, as discussed below.

**Small Business Effect:** Potential meaningful.

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## Analysis

**Bill Summary:** MDE may not issue a permit for the hydraulic fracturing of a well for the exploration or production of natural gas and may not require, accept, or initiate a process for a comprehensive gas development plan until (1) each requirement under the study required by Executive Order 01.01.2011.11 is satisfied; (2) 18 months have passed since the date the study required under the executive order is issued; and (3) MDE has adopted regulations that are specific to hydraulic fracturing. MDE and DNR must also issue a risk assessment of public health and environmental hazards relating to hydraulic fracturing activities with specified information and classifications of risk at the same time as the final report required pursuant to the executive order.

The bill defines a “comprehensive gas development plan” as a plan that is required, by regulation or otherwise, to be submitted to MDE as a condition for the issuance of a permit for the hydraulic fracturing of a well for the exploration or production of natural gas; it includes a plan that addresses broad and cumulative issues associated with the completion of gas exploration, extension, or production wells and the effects that the well construction, resource extraction, and transportation would have on a large scale.

The bill authorizes MDE, on written request from a representative of the natural gas drilling industry, to establish and collect a fee to provide funding necessary for the completion of the study required under the executive order. The fee must be collected from an owner of a gas interest in real property that is located in an area of the State underlain by the Marcellus Shale and that was acquired after January 1, 2007, for the purpose of exploration or production of natural gas. The fee must apply to each acre of property in which the owner has a gas interest.

Any regulations adopted by MDE that are specific to hydraulic fracturing must (1) include any restrictions or prohibitions deemed necessary to protect public health and the environment and (2) be at least as protective of public health and the environment as recommended in the final findings and recommendations of the study required under the executive order and the risk assessment required under the bill.

The bill defines “natural gas liquids” as components of natural gas that are liquid at the surface in field facilities or gas-processing plants, and clarifies that natural gas liquids are included within the existing definition of both “oil” and “gas.” “Gas interest” means the right to explore for gas on, or produce gas from, real property; however, a fee simple interest in the surface rights of real property, regardless of whether the fee interest includes the mineral rights, is not a gas interest. Finally, the bill alters the definition of “person” to include any unit of government at the local, State, or federal level, and clarifies that any individual or entity is also included in the definition.

The bill states the intent of the General Assembly that the study under the executive order be fully funded in order for MDE and DNR to satisfy each study item under the executive order. MDE and DNR must jointly brief specified committees of the General Assembly 90 days after the study's final report and the risk assessment are issued. Finally, the bill states that it is the intent of the General Assembly to (1) continue to monitor issues relating to hydraulic fracturing; (2) review the final findings and recommendations of the study required under the executive order; (3) review the risk assessment required by the bill; and (4) determine if any modification to the bill is necessary, including extending or lifting the moratorium or imposing a ban on hydraulic fracturing in Maryland.

**Current Law/Background:** MDE is authorized to issue permits for oil and gas exploration and production and is required to coordinate DNR in its evaluation of the environmental assessment of any proposed oil or gas well. Specifically, a person must obtain a permit from MDE before drilling a well for the exploration, production, or underground storage of gas or oil in Maryland. A permit is also required for the disposal of any product of a gas or oil well. An applicant who wants to extract gas from the Marcellus Shale may also be required to apply for a number of other State permits, such as a water appropriation permit or a National Pollutant Discharge Elimination System permit.

Current regulations apply to all gas wells in Maryland and are not specific to the practice of hydraulic fracturing. However, under current law, MDE has broad authority to impose conditions on permits to protect the State's natural resources and to provide for public safety. Further, MDE may deny a permit based on a substantial threat to public safety or a risk of significant adverse environmental impact. Although MDE regulates gas exploration and production, the regulations were written prior to the use of hydraulic fracturing and have not been revised since 1993.

More information on the practice of hydraulic fracturing, the Marcellus Shale, the CGDP concept, and the Marcellus Shale Safe Drilling Initiative may be found in the **Appendix – High-volume Hydraulic Fracturing in the Marcellus Shale**.

**State/Local Fiscal Effect:** General fund, special fund, and local government revenues associated with general economic activity, as well as local severance tax revenues, decrease, potentially beginning in fiscal 2015, to the extent that the bill delays or prevents the development of natural gas resources that would otherwise occur in the absence of the bill. It is currently assumed that a permit could be issued in fiscal 2015, and potentially as early as August 1, 2014, on completion of the study required by executive order. However, the bill prohibits MDE from issuing a permit for hydraulic fracturing, or even initiating a CGDP until 18 months after the date the study is completed and until MDE has adopted hydraulic fracturing regulations. It is unclear which of these events will occur first, but if the study is not completed until August 1, 2014, then, under the bill, a CGDP may not be required, accepted, or initiated, and a permit may not be issued, until February 1, 2016; a CGDP is generally understood to be a prerequisite to permit issuance.

Moreover, the bill specifies that any hydraulic fracturing regulations must be at least as protective of public health and the environment as the final findings and recommendations of the study and the risk assessment required by the bill. MDE advises that it has undertaken a risk assessment that is expected to be complete in June 2014, but that the risk assessment required by the bill consists of different items and recommendations. Thus, MDE and DNR may be required to undertake another risk assessment, potentially at significant additional expense. Additionally, the content of the study's ultimate recommendations, including how protective/stringent each recommendation may be, is uncertain. To the extent that the recommendations contained in the Marcellus Shale Safe Drilling Initiative final report are relatively protective, the subsequent hydraulic fracturing regulations may be sufficiently restrictive as to significantly delay or prevent any future development of natural gas resources in Maryland.

Finally, it is assumed that MDE does not establish and collect a fee from an owner of a gas interest on request of an industry representative under the bill's authorization. The fiscal 2014 budget included a \$1.5 million fiscal 2013 deficiency appropriation for MDE and DNR to support the research required by the executive order, and all, or nearly all, of the \$1.5 million has been spent or encumbered by the departments and contractors. MDE and DNR have stated that current funding is sufficient to undertake the research required by the executive order. Further, it is unclear whether an industry representative would request that a fee be established. However, to the extent that a fee is requested and established, MDE special fund revenues and expenditures increase accordingly.

**Small Business Effect:** The bill may have a meaningful adverse impact on small businesses engaged in providing services related to hydraulic fracturing and the development of natural gas resources to the extent the bill delays such development. The bill may have a meaningful beneficial impact on small businesses in Western Maryland reliant upon tourism to the extent that the development of natural gas resources would impact the levels of tourism in the area; however, any such impact is unclear.

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### **Additional Information**

**Prior Introductions:** A similar bill, HB 1274 of 2013, received a hearing in the House Environmental Matters Committee, but was subsequently withdrawn.

**Cross File:** Although HB 1122 (Delegate Mizeur, *et al.* – Environmental Matters) is designated as a cross file, it is different.

**Information Source(s):** Garrett County, Department of Natural Resources, Maryland Department of the Environment, Department of Legislative Services

**Fiscal Note History:** First Reader - February 20, 2014  
ncs/lgc

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## **Appendix – High-volume Hydraulic Fracturing in the Marcellus Shale**

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The Marcellus Shale formation is a geologic feature that has attracted significant attention from the energy industry for its rich natural gas and liquids resources contained within seven states. In Maryland, the only anticipated areas of gas production are in Garrett and western Allegany counties. Applications for permits to produce natural gas in Maryland using horizontal drilling and high-volume hydraulic fracturing were first filed with the Maryland Department of the Environment (MDE) in 2010. According to MDE, however, all of the permit applications that had been filed have been withdrawn.

### *Concerns Regarding High-volume Hydraulic Fracturing*

As the use of hydraulic fracturing has increased, so has concern about its potential impacts. MDE has advised that, although accidents are relatively rare, exploration for and production of natural gas in nearby states have resulted in injuries, well blowouts, releases of fracturing fluids, releases of methane, spills, fires, forest fragmentation, road damage, and evidence of water contamination.

In 2010, the U.S. Environmental Protection Agency (EPA) raised several concerns regarding the impact of hydraulic fracturing on water supplies, water quality, and air quality, among other issues, and is currently examining the practice more closely. In April 2012, EPA adopted a final rule to address air emissions from hydraulic fracturing, and in December 2012, EPA released a progress report on its comprehensive study of hydraulic fracturing impacts on water resources; a full draft report is expected to be released for public comment and peer review in 2014. Other states, academic organizations, environmentalists, and the industry are also conducting research into the impacts of hydraulic fracturing on public health, safety, and the environment.

### *Marcellus Shale Safe Drilling Initiative*

Governor Martin O'Malley established the Marcellus Shale Safe Drilling Initiative by executive order in June 2011 to ensure that, if drilling for natural gas from the Marcellus Shale proceeds in Maryland, it is done in a way that protects public health, safety, natural resources, and the environment. The executive order directs MDE and the Department of Natural Resources (DNR) to assemble and consult with an advisory commission. Specifically, the executive order tasks MDE and DNR, in consultation with the advisory commission, with conducting a three-part study and reporting recommendations.

Part I of the study, a report on findings and recommendations regarding sources of revenue and standards of liability for damages caused by gas exploration and production, was released in December 2011. The findings and recommendations of the report led to the introduction of several bills during the 2012 legislative session; the General Assembly passed only one of the bills, however. Chapter 703 of 2012 (HB 1123) established a

presumptive impact area applicable to areas around a deep shale gas deposit well for which MDE has issued a gas exploration or production permit. In a presumptive impact area, it is presumed that contamination of a “water supply” was caused by the activities of gas exploration or production.

Part II of the study – a report on best practices – was completed in August 2013 and reflected changes made after consideration of more than 4,000 public comments. This report was based upon work conducted by two experts at the University of Maryland Center for Environmental Science, Appalachian Laboratory. The experts provided MDE and DNR with a suite of recommendations that have been used or studied in other states. The departments considered each recommended best practice and decided, in consultation with the advisory commission, which practices to accept. While the report contained many recommendations, the centerpiece was the use of a Comprehensive Gas Development Plan (CGDP), which a drilling applicant would be required to submit as a prerequisite to an individual well permit. A CGDP would address broad and cumulative issues associated with the completion of numerous wells and the effects that the well construction and resource extraction and transportation would have on a large-scale.

The third and final report required by the executive order is expected by August 1, 2014. This report is expected to address all other issues identified by the executive order and focuses on identifying the potential impact of drilling. Currently, the departments and their contractors are working on completing an economic and fiscal study; a comprehensive risk assessment; a public health study; and monitoring efforts to measure baseline water quality and effects on air and water quality of any future drilling.

The Marcellus Shale Safe Drilling Initiative has been hampered to some extent by a lack of funding. Legislation failed in the 2011 and 2012 sessions that would have provided the estimated funding needed. However, the fiscal 2014 budget included a \$1.5 million fiscal 2013 deficiency appropriation for MDE and DNR to support the research required by the executive order. The general funds are being used to support the stream sampling, economic analysis, public health study, and monitoring efforts. All, or nearly all, of the \$1.5 million has been spent or encumbered by the departments and contractors.

#### *Marcellus Shale Safe Drilling Advisory Commission Legislative Committee*

In September 2012, the advisory commission established a legislative committee to recommend proposals to the advisory commission for consideration prior to the 2013 session. The commission considered 10 topics for potential proposals and ultimately recommended four proposals. Ultimately, two of these legislative proposals (relating to financial assurance requirements and the registration of “land professionals”) were introduced and passed by the General Assembly. However, the legislative committee did not reconvene (as of December 2013) in preparation for the 2014 session.