

Department of Legislative Services  
Maryland General Assembly  
2016 Session

FISCAL AND POLICY NOTE  
First Reader

House Bill 394 (Delegate Morhaim, *et al.*)  
Environment and Transportation

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Public Health - Hydraulic Fracturing Chemicals - Information and Fund

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This bill requires an applicant for a permit to hydraulically fracture a well to submit to the Department of Health and Mental Hygiene (DHMH) information about the chemicals to be used in hydraulic fracturing, as well as other specified information. DHMH must provide access to the information to specified entities. The bill establishes a fee to be paid by a party submitting the required information and a fund supported by fee revenues to be used to address the potential health risks associated with chemicals used in hydraulic fracturing, among other things. The bill also establishes a civil penalty for submitting false information or otherwise violating the bill's information submission requirements; penalty revenues are directed to the new fund. DHMH must adopt implementing regulations.

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Fiscal Summary

**State Effect:** General and/or special fund expenditures may increase beginning in FY 2018 for DHMH to hire additional personnel to implement the bill to the extent that any applications for permits to hydraulically fracture a well are submitted. Special fund expenditures from the new fund may increase beginning in FY 2018 for the provision of financial assistance for individuals injured by hydraulic fracturing chemicals. Special fund revenues may increase from the collection of fees and penalties established by the bill. General and/or special fund revenues associated with general economic activity may decrease to the extent that the bill reduces development of gas resources that would occur in the absence of the bill, as discussed below.

**Local Effect:** Local severance tax revenues and other revenues associated with general economic activity may decrease for Allegany and Garrett counties, beginning in FY 2018, to the extent that the bill reduces 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:

#### *Information Submission and Other Requirements*

An applicant for a permit to hydraulically fracture a well must submit to DHMH information relating to each chemical constituent or material, including proppants and engineered nanomaterials that will be used in the hydraulic fracturing of the well, including specified information about each chemical or material. The applicant must also report the location of the portion of the well in which the hydraulic fracturing will take place, the anticipated extent of the fractures or other modifications to the shale or underground geologic formation, specified health and safety data relating to the chemicals that will be used, and information on chemical changes or reactions that may occur as a result of the hydraulic fracturing of the well.

DHMH must provide access to the chemical information collected under the bill to the Maryland Poison Center, specified public health professionals who submit a written statement of need, and a health care provider – on request – who suspects a patient may have an illness or injury caused by a chemical used in hydraulic fracturing. A health care provider may share the information as professionally necessary, including with the patient, any other health professional involved in the treatment of the patient, a family member of the patient if the patient is unable to make medical decisions or is a minor, and the U.S. Centers for Disease Control and Prevention or other government public health agency. A health care provider, health professional, or government agency must maintain that information and patient medical records in accordance with any law or regulation relating to confidentiality.

DHMH must establish an educational program for health care providers on the potential health risks associated with chemicals used in hydraulic fracturing. DHMH must also adopt regulations to implement the bill.

A person that knowingly or recklessly submits false information required by the bill, or that otherwise violates the information submission requirements of the bill, is subject to a civil penalty of up to \$100,000 for each violation.

### *New Fee and Fund*

The bill requires DHMH to establish a fee by regulation to be paid by an entity submitting the information required by the bill. The fee must be based on the cost to DHMH of establishing the educational program required by the bill, the potential public health and safety risk of injury or illness from chemicals used in hydraulic fracturing, and the administrative costs of implementing the bill.

The bill also establishes a Hydraulic Fracturing Chemical Education and Impact Fund, administered by DHMH, to address the potential health risks associated with chemicals used in hydraulic fracturing. The fund consists of revenues from the fee and penalties established by the bill, as well as other appropriations in the State budget, investment earnings – which may not revert to the general fund – and money from any other source. The fund may be used only for financing the required educational program, providing financial assistance to a person that has an illness or injury caused by a chemical used in hydraulic fracturing, and DHMH's reasonable administrative costs.

### **Current Law/Background:**

#### *Current Oil and Gas Regulations*

A person must obtain a permit from the Maryland Department of the Environment (MDE) before drilling a well for the exploration, production, or underground storage of gas or oil in Maryland. An applicant that wants to extract gas from the Marcellus Shale may also be required to apply for a number of other State environmental permits.

MDE regulates gas exploration and production and 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. However, current MDE oil and gas regulations were written prior to the use of high-volume hydraulic fracturing and, as of February 2016, have not been revised since 1993. These regulations apply to all gas wells in Maryland, are not specific to the practice of hydraulic fracturing, and, in some cases, are incompatible with modern industry practices.

Chapter 383 of 2010 established an Oil and Gas Fund to support MDE's administration of a regulatory program that oversees the drilling, development, production, and storage of oil and gas wells in the State. Under Chapter 383, MDE is required to set and collect permit and production fees at a rate necessary to, among other things, develop and implement regulations to address the risks to public safety, human health, and the environment from oil and gas well drilling and development.

## *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 directed MDE and the Department of Natural Resources (DNR) to assemble and consult with an advisory commission. Specifically, the executive order tasked 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. 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. While the report contained many recommendations, the centerpiece was the use of a Comprehensive Gas Development Plan (CDP), which a drilling applicant would be required to submit as a prerequisite to an individual well permit. A CDP would address, before any well is drilled, the 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 was released on November 25, 2014, and contained information from a risk assessment, a public health study, and an economic impact study commissioned by the departments. The final report contained all final findings and recommendations and addressed all remaining issues identified by the executive order. Ultimately, the departments concluded that the risks to public health and the environment can be adequately managed under a stringent regulatory regime that relies on the best practices identified in their report.

MDE developed regulations to implement many of the best practices identified during the initiative, which were published in the *Maryland Register* on January 9, 2015. However, Chapters 480 and 481 of 2015 required MDE to adopt regulations related to hydraulic fracturing by October 1, 2016, and prohibited the regulations from taking effect until October 1, 2017. The Acts also prohibited MDE from issuing a permit to drill a well using hydraulic fracturing until October 1, 2017. Subsequently, the regulations published on January 9, 2015, were withdrawn as an operation of law because they were not acted upon within one year.

**State Expenditures:** General and/or special fund administrative expenditures may increase by \$238,675 in fiscal 2018 to the extent that DHMH hires personnel beginning

October 1, 2017, following any issuance of permit applications by MDE for hydraulic fracturing in the Marcellus Shale (as authorized under Chapters 480 and 481 of 2015). DHMH advises that, if permit applications are approved, then it needs one public health laboratory chemist to evaluate chemical information and data submitted by permit applicants; one community health educator to develop and conduct the educational outreach program required by the bill; and one program administrator and office secretary responsible for all administrative aspects of the bill’s implementation. Additionally, DHMH advises that one nurse may be needed by July 1, 2018 (fiscal 2019), to evaluate any claims of compensation for injuries or illnesses to the extent that hydraulic fracturing has occurred prior to that date.

	<u><b>FY 2018</b></u>	<u><b>FY 2019</b></u>
New Positions	4	1
Salaries and Fringe Benefits	\$219,399	\$391,228
Start-up and Operating Expenses	<u>19,276</u>	<u>7,433</u>
<b>Total DHMH Administrative Expenditures</b>	<b>\$238,675</b>	<b>\$398,661</b>

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

Although the bill requires that DHMH establish fees to cover its administrative costs, fee revenues may not be available for a portion, or the entirety, of fiscal 2018 or 2019 and may not be sufficient to cover the initial personnel and administrative costs. Thus, it is assumed that initial expenditures are covered at least in part by general funds.

This estimate does not account for any expenditures associated with the payment of financial assistance to a person injured by a chemical used in hydraulic fracturing, as authorized by the bill. It is unknown how many such injuries may occur in any fiscal year or how much assistance may be provided, as discussed further below.

The impacts described above may begin in future years, rather than in fiscal 2018, depending on when permit applications are first approved by MDE.

**State Revenues:** Special fund revenues increase to the new fund as a result of the fee established by DHMH to cover its administrative costs and to provide financial assistance to those injured by chemicals used in hydraulic fracturing. A reliable estimate of the fee revenues cannot be made due to uncertainty regarding the timing and frequency of permit applications received by MDE, the effect that the bill may have on the industry (as discussed further below), the level of financial assistance provided to those injured by hydraulic fracturing chemicals, and the level of fees established by DHMH – including any future changes to the fees.

However, the Marcellus Shale Safe Drilling Initiative Advisory Commission and related State agencies commissioned a study of the economic impacts of natural gas production from high-volume hydraulic fracturing in the Marcellus Shale, which was completed by the Regional Economic Studies Institute (RESI) of Towson University in 2014. RESI has developed several scenarios used for modeling future economic and fiscal impacts of Marcellus Shale development. The models look at both low-extraction and high-extraction scenarios, and they estimate that between 8 and 36 case wells will be drilled in the first year of permitting for the low- and high-extraction scenarios, respectively.

Given the estimated range in the number of wells to be drilled, and the personnel and other administrative costs discussed above, the level of fee established by DHMH might need to be set at a minimum of \$6,630 in fiscal 2018 to cover administrative costs if 36 permit applications are received (based on the high-extraction scenario); if the low-extraction scenario is used instead, then, based on an assumption that 8 permit applications are received, DHMH might need to establish a fee of at least \$29,834. In order to establish a prudent fund balance, and in anticipation of injury claims to the fund that may occur once drilling commences, the fee may initially be set toward the upper-end of this range.

Because the bill also requires the fee to be set to provide financial assistance to those injured by hydraulic fracturing chemicals, the fee must be set at an even higher level the following year. Such financial assistance may be needed as early as fiscal 2019, once drilling has commenced. As noted, the amount of financial assistance to be paid each year, if any, is highly uncertain. However, *for illustrative purposes only*, using the estimated administrative expenses and projected number of wells to be drilled, as discussed above, and further assuming \$100,000 in financial assistance is provided from the fund each year based on any injury claims, then the fee may need to increase to between about \$7,000 and \$31,200 in fiscal 2018 (based upon the low- and high-extraction scenarios discussed above). DHMH may have greater certainty in setting the fees for fiscal 2018 based on the actual number of permit applications received by MDE in fiscal 2017. It should be noted that, if financial assistance provided by the fund exceeds \$100,000 per year, the fee may need to be significantly higher than described in this estimate.

Any increase in special fund revenues from the assessment of penalties established by the bill cannot be reliably estimated but may be significant, given the maximum penalty of \$100,000.

Finally, it should be noted that the bill's disclosure requirements, fees, penalties, and other restrictions may result in fewer permit applications for development of the Marcellus Shale than would otherwise occur in the absence of the bill. Thus, general and special fund revenues associated with general economic activity may decrease, likely no earlier than fiscal 2018, 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.

**Local Fiscal Effect:** Local revenues associated with general economic activity, as well as local severance tax revenues, may decrease, likely no earlier than fiscal 2018, 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. This estimate assumes that a permit could be issued in fiscal 2018. Further, the bill's disclosure requirements may affect the willingness of some natural gas production companies to operate in Maryland, even after any new regulations are adopted.

**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 prevents or 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:** HB 952 of 2015 received a hearing in the House Environment and Transportation Committee but was subsequently withdrawn. HB 1030 of 2014 received a hearing in the House Environmental Matters Committee, but no further action was taken.

**Cross File:** None.

**Information Source(s):** Garrett County, Maryland Department of the Environment, Department of Health and Mental Hygiene, Regional Economic Studies Institute of Towson University, Department of Legislative Services

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