


Colorado Legislative Council Staff Fiscal Note
STATE
FISCAL IMPACT

Drafting Number: LLS 12-0626
Prime Sponsor(s): Sen. Carroll
 Rep. Wilson

Date: March 12, 2012
Bill Status: Senate Judiciary
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TITLE: CONCERNING ADDITIONAL PROTECTIONS FOR WATER RELATING TO HYDRAULIC FRACTURING.

Fiscal Impact Summary	FY 2012-2013	FY 2013-2014
State Revenue		
Cash Funds		
Oil and Gas Conservation and Environmental Response Fund	Increase. See State Revenue section.	
State Expenditures		
Cash Funds		
Oil and Gas Conservation and Environmental Response Fund	\$322,456	\$593,255
FTE Position Change	3.9 FTE	7.7 FTE
Effective Date: Upon signature of the Governor, or upon becoming law without his signature.		
Appropriation Summary for FY 2012-2013: See State Appropriations section.		
Local Government Impact: None identified.		

Summary of Legislation

This bill enacts the "Water Rights Protection Act" which requires the Colorado Oil and Gas Conservation Commission (COGCC) to establish rules for:

- hydraulic fracturing near Superfund sites and radioactive materials; and
- shutting down operations when monitoring equipment detects a pressure drop.

Prior to fracturing a well, oil and gas operators are required to conduct water quality and quantity studies and submit reports of their findings to the COGCC. The COGCC is to make these reports available to the public online in a searchable format. Operators are prohibited from inserting chemicals into the ground that are known or reasonably anticipated to cause cancer. Operators engaging in high-risk hydraulic fracturing are required to obtain an environmental bond or other financial assurance that will be forfeited if the operations cause damage to water rights or nontributary water. The bill establishes a definition for high-risk hydraulic fracturing as hydraulic fracturing occurring within one-half mile of a Superfund site, radioactive materials, surface water, or a federally designated wilderness.

Unless rebutted by one or more of the defenses established in the bill, an operator is presumed to be responsible for the pollution of a water supply that is within one-half mile of a line between the well head and the surface projection of the bottom hole location of the well, if the pollution occurred within six months after the completion of the hydraulic fracturing of the well. The five affirmative defenses are:

1. the pollution existed prior to the hydraulic fracturing;
2. the surface owner or water well owner did not allow the operator access to conduct a predrilling or prealteration survey;
3. the water supply is not within one-half mile of the well;
4. the pollution occurred more than six months after the completion of the hydraulic fracturing of the well; or
5. the pollution occurred as a result of some cause other than the hydraulic fracturing of the well.

Finally, the bill requires that operators use a closed-loop system when conducting hydraulic fracturing within one-half mile of any surface water and allows the COGCC or local governments to adopt more stringent local protections.

Background

Hydraulic fracturing, commonly referred to as fracking, is the process of creating small cracks, or fractures, in underground geological formations to allow oil or natural gas to flow into the well bore, thereby increasing production. To fracture the formation, special fracturing fluids are injected down the well bore and into the formation. These fluids typically consist of water, sand, and chemical additives. The pressure created by injecting the fluid opens the fractures. Sand is carried into the fractures by the fluid and keeps the fractures open to increase the flow of oil or natural gas to the well bore. Most of the hydrocarbon bearing formations in Colorado have low porosity and permeability. These formations would not produce economic quantities of hydrocarbons without hydraulic fracturing. Fracture treatment of oil and gas wells in Colorado began in the 1970s and has evolved since then.

State Revenue

This bill will require an increase in the mill levy on oil and gas sales to the Oil and Gas Conservation and Environmental Response Fund in the Department of Natural Resources (DNR) but the amount cannot be determined at this time. The COGCC is funded with severance tax and mill levy revenues. This bill is expected to be funded from the current mill levy and the existing fund balance for the first two years of implementation. Beginning in FY 2014-15, the fiscal note assumes that the mill levy will be increased.

State Expenditures

This bill is expected to increase state expenditures by \$322,456 and 3.9 FTE in FY 2012-13 and \$593,255 and 7.7 FTE in FY 2013-14 from the Oil and Gas Conservation and Environmental Response Fund in the DNR. As the COGCC develops rules, these costs may change. Expenditures are shown in Table 1 and explained below.

Cost Components	FY 2012-13	FY 2013-14
Personal Services	\$280,482	\$559,189
FTE	3.9	7.7
Operating Expenses and Capital Outlay	22,047	25,186
Computer Programming	8,880	8,880
Legal Services	5,451	
Commissioner Travel and Per Diem	4,001	
Hearing Notices	1,595	
TOTAL	\$322,456	\$593,255

COGCC. Expenditures for the COGCC are shown for each provision of the bill.

Water Quantity Reporting. The COGCC must set deadlines for water quality reports and post them, in a searchable format, on its website. This will require the Office of Information Technology to create a reporting form and update the website to accept the data. This is expected to require 120 hours of computer programming at a rate of \$74 hour for a total of \$8,880.

Water Quality Reporting. Currently, operators voluntarily submit pre- and post-fracturing samples from the two water wells closest to an oil and gas well to the COGCC. This bill requires operators to sample all wells within a half mile of a hydraulically fractured oil and gas well. This is estimated to be an average of eight water wells per oil and gas well. As part of the permitting process, COGCC staff will provide lists of water wells that require sampling to the operator. To address the increased time required in the permitting process, the COGCC requires an additional 1.8 FTE. Because the COGCC has 1.0 FTE in a FY 2012-13 decision item for managing well samples submitted, the fiscal note only shows an increase of 0.8 FTE. If this decision item is not approved, the staffing for this bill will need to be increased by 1.0 FTE.

The bill also requires water sampling on the first, third, and sixth anniversaries of oil and gas wells. This will increase the number of reports received by the COGCC and the amount of staff time required to process the reports. This is expected to increase staff requirements by 2.5 FTE in FY 2012-13 and 5.9 FTE in FY 2013-14. This staffing requirement will increase exponentially as the number of water quality reports increases.

The COGCC has a new environmental database project underway but this will require 80 additional hours of computer programming time to electronically monitor water quality follow up reports.

Environmental Bond. COGCC staff will evaluate permits to assess the risk and determine whether an environmental bond is required. This will require 1.0 FTE beginning in FY 2012-13. Staff will also collect, verify, and audit every bond on an annual basis. This may require additional staffing depending on the number of high risk wells identified.

Water-based setbacks. The staff time required to identify all surface water within one-half mile of a proposed oil and gas well is included in the determination of high risk wells.

Rulemaking. The COGCC will need to conduct a three-day hearing to consider the multiple aspects of regulation included in the bill. The rules will prohibit hydraulic fracturing near radioactive materials and Superfund sites and require shutting down hydraulic fracturing when pressure readings indicate that fluid has entered a non-targeted area of the geologic formation. The hearing will include time for stakeholder and public input. Costs for commissioner travel, per diem and expenses require \$4,001 in FY 2012-13. Hearing notices in newspapers statewide requires \$1,595 in FY 2012-13 and the Department of Law requires \$5,451 for 72 hours of legal services at a cost of \$75.71 per hour.

Judicial Branch. This bill has a conditional fiscal impact on the courts due to factors that affect the potential for litigation. These include the rate of exploration and development, amount of water needed for each well, and the rebuttable presumption that the operator is responsible for pollution of a water supply within a half mile of the site within six months after completion of the fracturing operation. In addition, if a bond is forfeited, a hearing is required in district court to establish the amount of damage incurred. The amount of impact on the courts cannot currently be determined.

Expenditures Not Included

Pursuant to a Joint Budget Committee policy, certain costs associated with this bill are addressed through the annual budget process and centrally appropriated in the Long Bill or supplemental appropriations bills, rather than in this bill. The centrally appropriated costs subject to this policy are summarized in Table 2.

Table 2. Expenditures Not Included Under SB12-107*		
Cost Components	FY 2012-13	FY 2013-14
Employee Insurance (Health, Life, Dental, and Short-term Disability)	\$24,040	\$47,472
Supplemental Employee Retirement Payments	14,954	34,323
TOTAL	\$38,994	\$81,795

*More information is available at: <http://colorado.gov/fiscalnotes>

State Appropriations

For FY 2012-13, the COGCC requires an appropriation of \$322,456 from the Oil and Gas Conservation and Environmental Response Fund and 3.9 FTE. Of this, the Department of Law requires \$5,451 and the Office of Information Technology requires \$8,880 in reappropriated funds.

Departments Contacted

Judicial
Local Affairs
Public Health and Environment

Law
Natural Resources